UTAR
UNIVERSITI TUNKU ABDUL RAHMAN

BAFE

International Conference on Business, Accounting, Finance and Economics 2014

Globalisation in the 21st Century
Trends, Challenges & Issues

Editors

Krishna Moorthy Manicka Nadar
Garry Tan Wei Han
Eng Yoke Kee
Gengeswari a/p Krishnapillai
Annie Ng Cheng San
Loo Siat Ching

Organized by:
Faculty of Business and Finance
Centre for Accounting, Banking and Finance
Centre for Business and Management
Centre for Economic Studies

MESSAGE FROM UTAR PRESIDENT

I am pleased to welcome all participants to the second International Conference on Business, Accounting, Finance and Economics (BAFE 2014) organised by the Faculty of Business and Finance at UTAR.

This year's theme "Globalisation in the 21st Century: Trends, Challenges and Issues" is very timely in today's context as we move forward to try and understand the processes and trends associated with globalisation and to assess the impact and range of issues it has caused around the world. This international conference will hopefully bring to light the interconnected nature of the major drivers of globalisation and create a better understanding of globalisation which affects people, the environment, cultures, national governments, economic development and human well-being around the world. Such an understanding can provide youths and the community with greater insights into the social, political and cultural impacts of globalising communication technologies and economic integration.

While BAFE 2014 provides a significant opportunity for researchers and academics to present and share their views, findings, analysis and recommendations, it undoubtedly also provides a platform for networking among local and international participants in various aspects of business management, accounting, finance and economics. With participants and presenters from as far as Australia, Taiwan, Philippines and Singapore, I am sure this international conference will not only bring together a gathering of brilliant academics but also a fusion of various cultures and experiences.

I would like to thank the organising committee under the leadership of Prof. Dr. Choong Chee Keong who has put in a lot of efforts in planning and promoting this international conference. On this note, I would also like to extend my deepest gratitude to all the sponsors whose support and contributions are crucial to the success of this Conference.

I hope that from this international conference, participants will connect and explore the opportunities for further engagements in the various related fields and areas of expertise in business, economics and finance. I am certain that this conference will be an enriching and memorable experience.

With best wishes,

Ir Prof Academician Dato' Dr Chuah Hean Teik

Message from the Conference Chair, International Conference on BAFE 2014

Leveraging the success of the International Conference on BAFE 2013 last year, I would like to warmly welcome you to the 2nd International Conference on Business, Accounting, Finance, and Economics (BAFE) 2014 organized by Faculty of Business and Finance (FBF), Centre for Accounting, Banking and Finance (CABF), Centre for Business Management (CBM), and Centre for Economic Studies (CES) in Perak Campus of Universiti Tunku Abdul Rahman, Malaysia.

This Conference provides a platform for contemporary researchers, academicians, and educationalists in the field of business, accounting, finance, and economic to present and contribute their research findings to the development of new theoretical, methodological, and empirical knowledge.

I am delighted to receive many oversea participants or presenters from Philippines, Taiwan, Australia and Singapore. I am also pleased to know of the increased number of participants, including postgraduate students, from local higher institution of education. Your supportive participation has motivated us to make this intellectual event better for your learning experience.

Please take this golden opportunity to explore and share each other's research insights. I believe you will be able to benefit from the proceedings and enjoy being part of this research community until we meet again in the 3rd International Conference on BAFE 2015.

Good luck and all the best to your pursuit of research excellence.

Thank you and warm regards.

Prof Dr Choong Chee Keong
Conference Chair, International Conference on BAFE 2014
Tan Sri Dato' Sri Dr. The Hong Piow Chair in Banking and Finance
Dean
Faculty of Business and Finance
Universiti Tunku Abdul Rahman

TABLE OF CONTENT

BUSINESS/ MANAGEMENT

ACCOUNTING

BANKING/ FINANCE

No	Paper ID	Title	Author(s)	Page No
45.	BAFE 006	Impact of E Banking Information System on Customer Loyalty in Malaysia	Zam Zuriyati Mohamad, M.Krishna Moorthy, Tengku Rahimah & Tengku Arifin	388-394
46.	BAFE 013	Significance of Personal Financial Literacy on Practices and Usage Behaviors on Credit Card among Academicians in a Private Tertiary Institution in Malaysia	Chooi Yi-Wei, Mei Si-Chia, Lai Kwan-Chin, Yoke Chin-Kuah, Hock Siong-Ong	395-406
47.	BAFE 014	Loan Growth of Islamic Banks	Siti Rohaya Mat Rahim & Shafinaz Ahmad Nazar	407-425
48.	BAFE 038	A Exploratory Study On Real Property Valuation And The Variable Affecting The Price Change	Woo Kok Hoong	426-429
49.	BAFE 052	The adoption of e-banking among rural SME operations in Malaysian: An integration of TAM and TPB	Chong Yee Lee, Seow Ai Na, & Lee Eng Heng	430-438

ECONOMICS

No	Paper ID	Title	Author(s)	Page No
50.	BAFE 002	An Update on the Prediction of Malaysian Gold Prices using Box-Jenkins Approach	S. W. Wong & W. L. Beh	439-445
51.	BAFE 005	Roles of Housing Wealth and Stock Market Wealth in Monetary Transmission Mechanism in Malaysia	Siew Pong, Cheah & Siong Hook, Law.	446-462
52.	BAFE 021	Algerian Economic Development after oil and its Alternatives	Abdelhak Senadjki & Tameur Nachef	463
53.	BAFE 026	Investigation of The Impact of Financial Variables On The Agricultural Commodity Prices In Malaysia	Thurai Murugan Nathan & Abirami Malaiarasan	464-477
54.	BAFE 036	The M&A Announcement in Telecommunication Companies in Malaysia: Wealth Creating Opportunity for Shareholders	Pui-Yee Wan, Yoke-Kee Eng, & Chin-Yoong Wong	478-485
55.	BAFE 039	Effect of Malaysian General Election towards Stock Market	Yeoh Koay Kheng & Kong Yin Mei	486-502
56.	BAFE 045	The Effect of China's Outward Foreign Direct Investment on the Economic Development: A Comparative Analysis of Developed and Developing countries	Yuen-Xian, Too, Chee-Keong, Choong, & Chin-Yoong, Wong	503-512
57.	BAFE 048	The Impact Of Goods And Services Tax (GST) On Household Consumption Patterns In Malaysia	Lau Lin Sea, Ching Suet Ling, & Choong Chee Keong	513-517
58.	BAFE 049	Impact of swiftlet farming relocation from urban to agriculture land in West Malaysia	Kok Hong Tan, Fah Choy Chia & Han.Kiat Alan Ong	518-526
59.	BAFE 051	The role of tourism in the linkage between CO2 emission, energy consumption and economic growth: Evidence from the G-20 countries	Cheong-Fatt Ng, Chee-Keong Choong, & Lin-Sea Lau	527-536
60.	BAFE 067	The Impact of Minimum Wage from the Malaysian Employees' Perspective	Lee Kwee Fah, Yeong Wai Mun, Chung Chay Yoke, Low Mei Peng, Ung Leng Yean, Shamini Kandasamy, Jayamalathi Jayabalan, & Pok Wei Fong	537-550

Medical Team Resource Management: The Role of Managerial Coaching Skill and Organizational Culture

Chen, I-Chi, Lin[a], Chih-Hsuan[b], Lin, I-Po[c], Chen, Hsiu-Chu[d]

[a] Universiti Tunku Abdul Rahman (UTAR)/Assistant Professor, Malaysia, chenic@utar.edu.my

[b] National Chunghua University of Education, Taiwan, u9622003@gmail.com

[c] Oriental Institute of Technology/Lecturer, Taiwan, fl002@mail.oit.edu.tw

[d] Chunghua Christian Hospital / Vice President, Taiwan, 22206@cch.org.tw

Abstract

Background Teamwork and integration of resource has been an important issue for the organization management and human resource management. The development of team resource management (TRM) principles and training approaches had been adopted in healthcare industries. In this research, the authors discussed the relationship between managerial coaching skill, organizational culture strength and perception of TRM in healthcare industries.

Method This study used structural survey to measure the relationship between organizational culture strength, managerial coaching skill and team perception of TRM. The participants in this study were 650 hospital administration workers from 20 hospitals including one healthcare center with 8 branches in central of Taiwan, and 12 other random selected hospitals among other cities. The authors used SPSS 15.0 for Windows and AMOS to perform the statistical analysis.

Result Several findings can be drawn from the results. First, the evidence shown that the strength of organizational culture has significant influence on implementation of managerial coaching skills and perception of TRM. Second, team members who have a positive recognition of managerial coaching skill can help shaping team perception during TRM implementation. Third, the results shown that managerial coaching skills partially mediate the positive relationship between organizational climate strength and team perception of TRM.

Conclusion Through a systematic perspective of team resource management and how managerial coaching skill and organizational climate strength affect the perception of teamwork in healthcare organizations, we hope to provide hospitals valuable suggestions and future directions for creating effective training and developing of human resource.

Keywords: Team resource management, Managerial coaching skill, Organizational culture strength

Introduction

The development of team resource management (TRM) principles and training approaches had been adapted in others industries, such as aviation, nuclear power, oil drilling and more recently in healthcare industries. What started as an interpersonal training intervention now focuses on behaviorally-oriented, risk management skill training (Helmreich, Merrit and Wihelm, 1999). Patient safety in health care organizations has received much attention following the Institute of Medicine report 'To Err Is Human: Building Safer Health System' (IOM, 1999). Since the release of IOM report, the healthcare industries and agencies started to focus on improving team performance in the delivery of care (King *et al.*, 2008).

2

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Teamwork and integration of resource has been an important issue for the organization management and human resource management. Especially in the healthcare industry, it is highly labor intensive and highlights the important of teamwork to improve quality of care and patient safety. Through TRM, resource could be allocated effectively to achieve quality of care. In response to the IOM report, the Agency for Healthcare Research and quality (AHRQ) and the Department of Defense (DoD) have supported research and development activities related to team performance in health care (King *et al.*, 2008). In 2006, AHRQ and DoD released TeamSTEPPS as the national standard for team training in health care. TeamsSTEPPS teaches five core components of teamwork, including leadership, communication, mutual support and situation monitoring, and team structure. In this research, the authors applied the concept of TeamSTEPPS to discuss TRM through the perspectives of coaching and organizational culture.

TRM initiative extends beyond classroom teaching and calls for coaches to reinforce and monitor teamwork principles in daily practice. The main principles of TRM in healthcare organizations focused on training, risk management and emphasized the important of managerial coaching skill. TRM reinforces integration and utilization of team resource through managerial coaching skill, which includes teamwork, working pattern and behavior change, and effective feedback. To evaluate managerial coaching skill, the authors adopted research of Parker (2008) and McLean, Yang, Kuo, Tolberm and Lakin(2005) which covers the five dimension of managerial coaching skill such as open communication, team approach, value people over task, accept ambiguity, and facilitate development.

Healthcare organizations are becoming aware of the importance of transforming organizational culture in order to improve patient safety (Nieva and Sorra, 2003). There is wide belief that organizational culture shapes many aspects of performance, including safety and an organization's response to problems and challenges (Westrum, 1993, 2004). Organizational culture strength is an important factor which can be used to predict the behavior and attitude of caregivers (Schneider, Salvaggio and Subriats, 2002; Ginsburg, Gilin, Tregunno, Norton and Flemons 2009). Organization culture strength reflects the consistency on policy and procedure in organizations, and strong organizational culture derives from internally consistent and unambiguous polices and procedure (Zohar and Luria, 2005). In other words, strong organizational culture promotes better quality for patients.

In this study, the authors hope to provide a more systematic perspective of TRM and to investigate the relationship between managerial coaching skill, organizational culture strength, and perception of TRM in healthcare industries.

Research Hypothesis

The goal of this study is to demonstrate how coaching skill and organizational culture strength bears a predictive relationship with perception of TRM. First, it is widely recognized that culture has a significant influence on shaping people's perception and experience of health and how care givers make sense of, give meaning to and respond to their experiences (Johnstone and Kanitsaki, 2006). Therefore, the authors would like to explore how organizational culture strength accentuates managerial coaching skill and perception of TRM. Second, the relationship between managerial coaching skill and perception of TRM is remaining a new territory in healthcare research thus worth in-depth studying. Lastly, it is also interesting to examine the mediation effect of managerial coaching skill on perception of TRM and organizational culture strength in health care industries.

Methodology

Participants and procedure

This study used structural survey to measure the relationship between organizational culture strength, managerial coaching skill and team perception of TRM. The participants in this study were 650

3

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

hospital administration workers from 20 hospitals, including one healthcare center with 8 branches in central of Taiwan and 12 other random selected hospitals among other cities. The response rate is 81.53 % (530 resopndents). To ensure the privacy of the respondents, the survey was strictly anonymous. Also, to allow for confidentiality, respondents were asked to put their completed questionnaire in a sealed envelope, and the envelopes were collected by the research coordinator and then returned directly to the researchers.

After receiving the completed questionnaires, a preprocessing step was applied to remove incomplete or invalid data. The exclusion criteria used were similar to (AHRQ, 2008): (1) no entire section completed; (2) fewer than half the items answered; or (3) all items answered the same.

Measures

We adopted TeamSTEEPS® Teamwork Perceptions Questionnaire (T-TPQ) to measure TRM perception, which had five components and 35 items. Managerial coaching skill was measured using the short version measurement in McLean et al., (2005), which had 20 items covering five dimensions. Organizational Readiness Assessment checklist was used to measure organizational culture strength, which included 12 additional items. Overall, a total of 67 items were measured, excluding respondent's demographic information.

The T-TPQ items used a five-point Likert scale of agreement ('Strongly disagree' to 'Strongly agree'). For the data in this study, their liabilites, expressed as Cronbach's α, ranged from 074 to 0.93. Confirmatory factor analysis (CFA) was used to justify the fitness of applying the T-TPQ in this study, and the results were:χ^2 = 3.45 (p < 0.001), goodness of fit index (GFI) = 0.82, comparative fit index (CFI) = 0.90, root mean residual (RMR) = 0.04 and root mean square error of approximation (RMSEA) = 0.07. The CFA results indicate acceptable model fitness between T-TPQ and the data in this study.

Managerial coaching skill measurement was measured using the short version measurement in McLean et al., (2005) and Park (2008). The managerial coaching skill questionnaire contains 20 items which mostly use sematic differential scale that falls on the 6-choice continuum. For example, asking the respondents about what they think about their current manager and the answers may be "in daily work, my manager will 'arranges for social interactions', to 'focuses on the day's business outcomes/results/tasks.". For the data in this study, the Cronbach's α for this measure ranged from 0.75 to 0.79. CFA was applied to justify the validity of using the questionnaire on assessing managerial coaching skill in health industries, and the results were χ^2=4.45 (p < 0.001), GFI = 0.87,CFI = 0.90, RMR= 0.09 and RMSEA= 0.08. The CFA statistics show model fitness between managerial coaching skill index and the data in this study.

The third part of the survey was organizational culture strength measurement. The organizational culture strength measurement was measured by using the Organizational Readiness Assessment checklist (AHRQ, 2010; Battles & King, 2010). The original questionnaire contains 12 items which mostly asked the respondents about what they feel about the organization regarding need, readiness for change in culture, time/resource/personnel, and sustainment of the change. The organizational culture strength used 'yes' or 'no' to calculate the strength of respondents perception on organizational culture. For the data in this study, the Cronbach's α for this measure is 0.82.

The last part of the survey contained questions regarding the demographic information of interviewees, including working experience, working unit, gender, education level, position.

Data analysis

This study used SPSS 15.0 for Windows (SPSS Inc., Chicago, IL, USA), AMOS 7 (SPSS Inc., Chicago, IL, USA) to perform the statistical analysis. First, descriptive statistics of the demographic

4

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

characteristics of respondents, intercorrelations and statistics of managerial coaching skill, perception of TRM and organizational culture strength were computed. Second, regression analysis was applied in this research to verify whether organizational culture strength and managerial coaching skill had direct influence the perception of TRM. In addition, hierarchical regression was used to explore the mediated effect of managerial coaching skill on organizational culture strength and perception of TRM.

Result

In the following sections, we first show the demographic statistics of the respondents taking the survey. Next, intercorrelations and descriptive statistics of managerial coaching skill, perception of TRM and organizational culture strength of Taiwan's hospitals are presented. Lastly, the relationships between organizational culture strength, managerial coaching skill and TRM are given.

Demographic statistics

A total of 530 respondents from 20 hospitals in Taiwan completed the survey. The average age of the respondents was 26 to 35 years old. As shown in Table 1, most of the respondents were female (93.4%), and the majority of them possessed junior college or higher degree (89.8%). Among the respondents, 9.2% were in a supervisory position. Most of the respondents worked in their hospital more than one year (91%), and majority of the respondents had worked more than 10 years (32.1%).

Correlations of variables

Predictive validity of TRM perception was assessed by correlating with managerial coaching skill and organizational culture strength. Table 2 shows the correlations and descriptive statistics of perception of TRM, managerial coaching skill and culture strength.

Correlations between variables were computed at the individual level. As shown in Table 2, managerial coaching skill (open communication, team approach, value people over task, facilitate development leadership, accept ambiguity) had positively correlations with perception of TRM (team structure, leadership, situation monitoring, mutual support, communication) and organizational culture strength. As shown, perception of TRM also had positive correlation with organizational culture strength. Overall, significant correlations existed among the variables in the models.

Table 1. Demographic characteristics of respondents

variable	n	%	variable	n	%
Gender			Education level		
Male	35	6.6	High School	54	10.2
Female	495	93.4	Junior College	143	27.0
Position			University/college	305	57.5
Manager/Supervisor	49	9.2	Master	25	4.7
Staff	481	90.8	PhD	3	0.6
Age			Working Experience		

5

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

under 25	45	8.5	under 1 year	48	9.0
26-35	302	57.0	1 to 3 years	110	20.8
36-45	151	28.5	3 to 5 years	55	10.4
45~	32	6.0	5 to 10 years	147	27.7
			more than 10 years	170	32.1

Table 2. Correlations of variables in statistical models

variable	1	2	3	4	5	6	7	8	9	10	11
open communication	1										
team approach	.75**	1									
value people over task	.50**	.57**	1								
accept ambiguity	.74**	.72**	.65**	1							
Facilitate development leadership	.66**	.64**	.68**	.76**	1						
team structure	.44**	.39**	.17**	.38**	.34**	1					
leadership	.60**	.56**	.39**	.57**	.51**	.59**	1				
situation monitoring	.39**	.32**	.21**	.33**	.33**	.73**	.60**	1			
mutual support	.42**	.36**	.24**	.37**	.36**	.70**	.62**	.81**	1		
communication	.39**	.32**	.17**	.31**	.28**	.70**	.55**	.78**	.80**	1	
organizational culture strength	.30**	.34**	.30**	.35**	.33**	.33**	.44**	.35**	.38**	.33**	1

*$\alpha < .05$, **$\alpha < .01$, ***$\alpha < .001$

Results of regression analysis

Several findings can be drawn from the regression analysis. First, the strength of organizational culture had significant influence on implementation of managerial coaching skills and perception of TRM. Second, team members who have a positive recognition of managerial coaching skill can help shaping team perception during TRM implementation. Third, the results shown that managerial coaching skills partially mediate the positive relationship between organizational culture strength and team perception of team resource management.

As shown in Table 3, organizational culture strength had significant influence on managerial coaching skill. The evidence indicates that this is a culture change effort, the managerial coaching skill initiative extends beyond the hospitals for coaches to reinforce, monitor and role model teamwork principles in everyday practice. Similar results were also found on perception of TRM. Table 4 shows that organizational culture strength had significant influence on perception of TRM, including team structure, leadership, situation monitoring, mutual support and communication.

Table 3. Regression results of organizational culture strength on managerial coaching skill

	managerial coaching skill	open communication	team approach	value people over task	accept ambiguity	facilitate development leadership
β	.38**	.30**	.34**	.30**	.35**	.33**
R^2	.14	.09	.11	.09	.12	.11
$\triangle R^2$	.14	.09	.11	.09	.12	.10
F value	86.94**	53.06**	67.81**	50.61**	72.81**	62.55**

Independent variable: organizational culture strength

*α < .05,**α < .01, ***α < .001

Table 4. Regression results of organizational culture strength on perception of TRM

	perception of TRM	team structure	leadership	situation monitoring	mutual support	communication
β	.43**	.34**	.44**	.35**	.38**	.33**
R2	.18	.11	.19	.12	.14	.11
$\triangle$R2	.18	.11	.19	.12	.14	.11
F value	116.71	67.09**	124.80	72.56**	87.97**	66.10**

Independent variable: organizational culture strength

*α < .05,**α < .01, ***α < .001

In this research, the authors found that managerial coaching skill had different influences on TRM dimensions. The results are shown in Table 5. Open communication skill was the most significant factor on perception of TRM. Team approach had positive influence on team structure and leadership, and facilitate development leadership skill reinforced positive perception of leadership, situation monitoring and mutual support. However, the skill of value people over task had negative influence on perception of TRM, especially on perception of team structure.

Table 5. Regression results of managerial coaching skill on perception of TRM

Dependent variable	Predictor				
	OC[1]	TA[2]	VPT[3]	AA[4]	FDL[5]
team structure	.28**	.13*	-.19**	.13	.10

7

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

leadership	.28**	.13*	-.05	.08	.15*
situation monitoring	.28**	.03	-.08	.04	.14*
mutual support	.26**	.07	-.06	.07	.14*
communication	.30**	.10	-.10	.04	.06
R^2	.22	.30	.16	.19	.16
$\triangle R^2$	.21	.29	.16	.18	.16
F value	29.67***	44.43***	20.54***	24.80***	20.46***

[1] OC: Open communication; [2]:TA: Team approach; [3]:VPT: Value people over task; [4] AA: Accept ambiguity;

[5] FDL: Facilitate development leadership

*$\alpha < .05$,**$\alpha < .01$, ***$\alpha < .001$

A mediator variable represents an intervening variable or, stated differently, a mechanism through which an independent variable is able to influence a dependent. In this study, the authors intended to explain how or why a relationship exists between the predictor (organizational strength) and dependent variable (perception of TRM) through a mediator (managerial coaching skill). According to Baron and Kenny (1986) and Cohen and Cohen (1983), the sequence of regression analyses needed to establish a mediating effect include: (1) managerial coaching skill regressed on organizational culture strength, (2) perception of TRM regressed on managerial coaching skill, (3) perception of TRM regressed on organizational culture strength, (4) perception of TRM regressed on organizational culture strength and managerial coaching skill simultaneously. Finally, compare model 2 and model 3, mediating effect established if organizational culture strength to TRM is non-significant in third model, or partially medicating effect which is reduce influence on organizational culture.

As shown in Table 5, in model 1, organizational culture strength(OCS) had significant influence on managerial coaching skill(MSC) (β=.36, p<.001), in model 2, the managerial coaching skill had shown positive influence on perception of TRM (β=.50, p<.001). The organizational culture strength had significant influence on perception (model 3, β=.43, p<.001). And finally in model 4, managerial coaching skill had partially mediate the relationship between organizational culture strength and perception of TRM (β decreased from .43 to .28, and R^2 rose to .31).

Table 6. Mediation effect of managerial coaching skill on organizational culture strength to perception of TRM

Variable	MSC[1]	Dependent variable: Perception of TRM		
	Model 1	Model 2	Model 3	Model 4
OCS[2]	.38***		.43***	.28***
MSC[1]		.50***		.39***
R^2	.14	.25	.18	.31
$\triangle R^2$	.14	.24	.18	.31

8

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

F value	86.94***	172.27***	116.71***	119.69***
total effect= (0.38*0.5)+0.43=0.62				

*α < .05,**α < .01, ***α < .001

Discussion

In this research, the authors examine the relationship between managerial coaching skill, organizational culture strength and perception of TRM in healthcare organizations in Taiwan. The participants in this study were 650 hospital administration workers from 20 hospitals including one healthcare center with 8 branches in central of Taiwan, and 12 other random selected hospitals among other cities.

Our results indicate that in general, healthcare industries in Taiwan are aware that the heart of TRM is effective leadership. According to AHRQ (2010), coaches should be effective of developing teamwork skills of others, be able to effect changes in work patterns, behaviors and the environment. Therefore, effective managerial coaching skill had significant help on team resource management. According to our finding, openness communication, team orientation and facilitate development leadership had significant influence on perception of TRM. Openness communication had positive influence on each dimension of TRM. Driskell and Adams(1992) mentioned that most problems arose not from a lack of technical knowledge or skills, but from poor resource management. Crews whose performance included a high rate of errors did a poor job of communication, setting priorities and sharing workload. An organizing knowledge structure of the relationship between the task the team is engaged in and how the team members will interact, which shows how importance of openness communication. One of the managerial coaching skill is team orientation which had significant influence on positive perception of TRM, especially on team structure and leadership. Dirskell and Salas (1992) mentioned that collective orientation will increase task involvement, information sharing, strategizing and participatory goal setting especially in medical team.

In healthcare industries, a primary focus of TRM is effective team coordination to ensure patient and quality care. The authors believe that coach or manager should take their team members as partner instead of subordinate. Facilitate development leadership skill which can increase positive perception of TRM on leadership, situation monitoring and mutual support. Therefore, coaching skill can be effective at developing the teamwork skill of other and provide effective feedback that is descriptive, problem oriented, empowering exploring and considerate. The results from this study show that team leader should facilitate its employees to recognize the nature of mistake and encourage them to adjust strategies as needed.

Our results on skill of value people over task and accept ambiguity are different from that of previous research. According to this research, value people over task skill had negative relationship to team structure. The authors believe that having an interpersonal style conductive to caching (e.g. demonstrate a supportive attitude and ability to build confidence in others) is important in healthcare industries. However, the complexity of patient care had its own limited room for humanity. For instance, healthcare teams are large and the patient conditions are complex. Medical organizations do not allow blurry line of patient care, but have ability to adjust strategies based on information gathered from the environment through the use of compensatory behavior and reallocation of intra-team resource (Cannon-Bowers, *et al.*, 1995). Identify cues that a change has occurred, assign meaning to that change, and develop a new plan to deal with the changes which help team members to accept ambiguity.

Organizational culture is the shared understanding of employees which included beliefs, values norms and philosophies that determine how things work, and organizational culture strength is an important factor which can be used to predict the behavior and attitude of caregivers. Schneider et al. (2002) and Ginsburg et al. (2009) stated that weak cultures offer less reliable prediction of staff's safety behavior. In this study, the effect of organizational culture strength on managerial coaching behavior and

9

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

perception of TRM was investigated. Specific organizations develop TRM programs have to meet their own particular need and corporate culture. Organizational culture strength involves optimizing a complicated delivery system of people and processes and requires changes. TRM training and practice needs exist on at least three levels: the individual, the group and the organization. The organizational culture supportive is essential to effective TRM practice. Our results indicate that organizational culture strength can facilitate positive perception of TRM and encourage develop managerial coaching skill. The results also showed that mediation effect existed between organizational culture strength and perception of TRM. When healthcare delivery system faced variety challenges in these days, effective and adequate coaching skill can help medical teams to recognize the need for change, develop a culture that will accept a change which allowed giving team members freedom and discretion, encouraging risk-taking and speaking up, and also giving permission to find team-driven solutions.

Conclusion

In general, hospital staff had positive perception of TRM. However, this study reveals some critical barriers need to be conquered, including inconsistency in team membership, lack of time, lack of information sharing, hierarchy conflict and workload. The results shown that healthcare organizations should understand the need of teamwork in order to initiate culture change. The delivery of care requires teamwork effort; training programs should not come from separate disciplines and diverse educational programs. Coaching skill had certain influence on team members' behavior and perception, having an interpersonal coaching style is important to future training program.

For management implications, facilitating team-based problem solving, provide feedback regarding team member actions in order to facilitate self-correction, identifying opportunities for improvement and innovation for routine practice, anticipating and predicting each other's needs are necessary. Team leaders should emphasis the important of coaching and mentoring effort, and willing to face culture change to team-based work environment during launch of TRM program.

For academic implications, this is an exploratory study on team resource management and managerial coaching skill base on 20 hospitals. A longitudinal study design that covers more healthcare providers and practitioners should be beneficial for increasing the reliability of the data. Also, all questionnaire data in this study were collected from the same respondents at the same time. To minimize the effect of common method variance, reversed items design and maintaining privacy of respondents were adopted in the questionnaire design. Future research should replicate and develop other sources of data. In this research, the authors conducted questionnaire from AHRQ and McLean et al., (2005). Future research should consider the different between profit and non-profit organizations while adapting the questionnaire.

In this study, we provide a systematic perspective of team resource management and to show how managerial coaching skill and organizational climate strength affect perception of teamwork in healthcare organizations. Overall, we hope to provide hospitals valuable suggestions for creating effective training and human resource management.

10

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

Reference

AHRQ (2010). *Is your organization ready for TeamSTEPPS^TM*. Agency for Healthcare   Research and Quality (AHRQ), 1-8. Retrieved from AHRQ: http:// teamstepps. ahrq. gov/   TeamSTEPPS Readiness.pdf

Battles, J. & King, H.B. (2010). *TeamSTEPPS® Teamwork Perceptions Questionnaire (T-TPQ) Manual*. Washington DC: American Institute for Research.

Baron, R.M., & Kenny, D.A (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

Cannon-Bowers J.A., Tannenbaum, S.I., Salas E., & Volpe, C.E. (1995). Defining competencies. In R.A. Guzzo & E. Salas (Eds.), *Team Effectiveness and Decision-Making in Organizations* (pp.330-380). San Francisco: Jossey-Bass..

Cohen, J., & Cohen, P. (1983). *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences* (2ⁿᵈ ed.). Hillsdale, NJ:Erlbaum.

Driskell, J.E. & Adams, R.J.(1992). *Crew Resource Management: An Introductory Handbook*. Washington, DC : Research and Development Service.

Dirskell, J.E & Salas, E. (1992). Collective behavior and team performance. *Human Factors,* 34, 277-288.

Ginsburg, L., Gilin, D., Tregunno, D., Norton, P.G., Flemons, W. & Fleming M.(2009). Advancing measurement of patient safety culture. *Health Service Research, 44*(1), 205 –224.

Helmreich, R.L., Merritt, A.C., & Wilhelm, J.A. (1999). The evolution of crew resource management training in commercial aviation. *International Journal of Aviation Psychology, (9)*1, 19-32.

Institute of Medicine, IOM.(1999). *To Err Is Human: Building a Safer Health System*. Washington, DC:.National Academy Press.

Johnston, M.J., & Kanitsaki, O. (2006). Culture, language, and patient safety: making the link. *International Journal for Quality in Health Care, 18*(5), 383-388.

King, H.B., Battles, J., Baker, D.P., Alonso, A., Salas, E., Webster, J., Tommey, L., & Salisbury, M. (2008). TeamSTEPPS TM: Team strategies and tools to enhance performance and patient safety. In K. Henriksen, J.B. Battles, M.A. Keyes, and M.L. Grady (Eds*.). Advances in Patient Safety : New Directions and Alternative Approaches (Vol 3: Performance)*. Rockville (MD): Agency for Healthcare Research and Quality, USA.

McLean,G.N., Yang,B., Kuo, C., Tolber, A., & Lakin,C.(2005). Development and initial validation of an instrument measuring coaching skill. *Human Resource Development Quarterly, 16*(2), 157-178.

Nieva, V.F., & Sorra, J.(2003). Safety culture assessment: a tool for improving patient safety in healthcare organizations. *Quality and Safety in Health Care*,12, 17- 23.

Park, S. (2008). *Relationships among managerial coaching in organizations and the outcomes of personal learning, organizational commitment, and turnover intention* (Ph.D Thesis). Available from ProQuest Dissertation and Theses databases (UMI No. 3287827).

Peyrot, M. (1996). Causal analysis: Theory and application. *Journal of Pediatric Psychology*, 21, 3-24.

Schneider, B., Salvaggio, A.N. & Subirats, M. (2002). Climate strength: a new direction for climate research. *Journal of Applied Psychology, 87*(2), 220–229.

Westrum, R. (1993). Cultures with requisite imagination. In J.A Wise, V.D. Hopkin, & P. Stager (Eds), *Verification and Validation of Complex Systems*. NY: Springer-Verlag, 401– 416.

Westrum, R. (2004). A typology of organizational cultures. *Quality and Safety in Health Care*, 13, 22– 27.

Zohar, D. & Luria, G. (2005). A multilevel model of safety climate: cross-level relationships between organization and group-level climate. *Journal of Applied Psychology, 90*(4), 616 – 628.

Exploring Customer Loyalty in Mobile Commerce

Weng Onn Lee[11], Zhen Fu Kek[1], Hooi Siang Loh[1], Ker Xin Lim[1] and Gian Wei Ooi[1]

Faculty of Business & Finance, Universiti Tunku Abdul Rahman, Malaysia[1]

Abstract

With the rapid adoption of the Internet and the familiarization of consumers with mobile devices, m-commerce market is set to become one of the most promising and lucrative growth markets. In Malaysia, although m-commerce is relatively at its infancy stage, the mobile internet penetration is expected to grow rapidly in years to come. Numerous m-commerce adoption studies have been investigated. However, little attention has been paid on what factors could be utilized to retain m-commerce customers, which could in turn improve business performance. Therefore, this study aims to bridge the gap by investigating the factors that affect m-commerce customer loyalty in Malaysia by incorporating relationship quality theories and service quality models. A combination of online survey and paper survey methods were used for data collection. Out of the 300 questionnaires distributed, 241 were completed and returned, yielding a response rate of 80.3 percent. Data were subsequently analyzed by using correlation and multiple regression analysis. The results revealed that efficiency, fulfillment and privacy are positively and significantly associated with m-commerce customer satisfaction, whereas trust, satisfaction and commitment are positively and significantly related with m-commerce customer loyalty. Interestingly, satisfaction has the greatest influence on m-commerce customer loyalty. The research findings contributed significantly in filling up the knowledge gap regarding the determinants of customer loyalty in m-commerce services. The implications from this study may assist m-commerce service providers, marketers and managers in their decision making as well as improving their profitability, products and services. However, this study may be delimited to Malaysia only. Further research could complement it by exploring the study variables in other countries and also include other variables not mentioned in this study.

Key words: Customer loyalty, Mobile commerce, Malaysia

---

[1] *Corresponding author: Weng Onn Lee. Address: Faculty of Business & Finance, Universiti Tunku Abdul Rahman, Malaysia, email: leewo@utar.edu.my*

12

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

The Influence of Age Stereotypes on Managers' Intention to Hire Older Workers

Claudia Lau[a], Chee Keong Choong[b], Kee Luen Wong[c]

[a] Faculty of Business & Finance, Universiti Tunku Abdul Rahman, Malaysia,
email: lausm@utar.edu.my
[b] Faculty of Business & Finance, Universiti Tunku Abdul Rahman, Malaysia,
email: choongck@utar.edu.my
[c] Faculty of Business & Finance, Universiti Tunku Abdul Rahman, Malaysia,
email: wongkl@utar.edu.my

Abstract

Malaysia faces acute labour shortages. Several reasons lead to this situation. Inter alias, the early retirement of its baby boomer generations, the deferment of future workers into workforce, and most of all, the changing demographic pattern resulted from low fertility rate and increase ageing population. Labour shortage adds negative impact to the nation's financial and economic wellbeing, and often results in diminishing global competitiveness. In overcoming the said problem and to reduce dependent on foreign workers, one of the government's long term strategies is to encourage local labour force participation by utilising latent workers, which include older workforce. In addition, the enactment of the Minimum Retirement Age Act, 2012 is to prolong older workers labour participation till the age of sixty in the private sector. Generally, Malaysian employers are reluctant to maintain an older workforce in their organizations for want of flexibility and cost reduction. This paper is a conceptual study which will form the basis for examining the influence of age stereotypes such as resistance to change, learning ability and human resource cost on managers' intention to hire older workers. This shall be a quantitative study and the targeted respondents are managers of various industries in the state of Selangor and Wilayah Kuala Lumpur.

Keywords: Older workers, age stereotypes, intention to hire.

Introduction

In Malaysia, the gradual increase in ageing population is expected to continue in the coming years. As such, this demographic change brings with it shortage in labour supply.

In order to prevent the labour gap from getting wider and to increase the retirement age to sixty, Malaysian Government implemented the Minimum Retirement Age Act, 2012 (MRAA, 2012) on 1 July, 2013 (The Star Online, 7 Dec, 2012). MRAA 2012 covers employees of private sector. It stipulates the minimum retirement age to be sixty years of age. The implementation faced strong objection from several employers' associations for want of flexibility and purported cost reduction (Malay Mail (The), 24 July, 2012). This implied the general unwillingness of employers to employ older workers as a substitute to their human resource requirement. Hiring managers, therefore, play a crucial role in recruiting and

13

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

selecting their workforce. On one hand, they have to comply with MRAA 2012, meeting labour shortage problems, and on the other hand, satisfy their employers by employing least old workers.

This paper reviews the influence of several variables of age stereotypes on older workers, such as human resource cost in hiring older workers, their resistance to change, and their learning ability and which influence managers' intention to hire older workers. From the literature reviewed, a conceptual framework is developed which will form the basis for future analysis on the influence and extent of the variables on managers' intention to hire older workers.

Literature Review

Labour Force Participation Rate of Older Workers

In 2010, Malaysian's population was 28.6 million and is forecasted to increase to 38.6 million in 2040. In view of lower fertility rate and international migration, the annual population growth rate is expected to reduce from 1.8% to 0.6% in 2040 (Population Projection, 2010-2040). However, the age group of 15 to 59 was increased from 49.9% in 1970 to 60.2% in 2000, and expanded to 64 years and above, and this is expected to increase by 1.4% and 6.4% respectively which means labour force participation rate will be reduced accordingly. At the same time, statistic indicated that the labour participation rate for those aged 55 and above reduced substantially (Labour Force Survey Report, Malaysia (MLFSR, 2010-2013).

Employer's Age Stereotypes on Older Workers

An old worker is referred to as an individual aged fifty and above (Bird & Fisher, 1986; Hassell & Perrewe, 1995). "Stereotyping occurs when we make judgements about people based on our perceptions of the group or category to which they belong" (Robbins, 2005:140). Positive stereotypes usually enhance the attributes of such group, but negative stereotypes bring discrimination. The group here refers to older workers. In 1954, Kirchner and Dunnette conducted a research on stereotypes beliefs on older workers of which the result was negative, as older workers were generally believed to be difficult to train, slower in performing tasks, and lesser motivated. Such negative stereotypes on older workers were supported by later research (eg. Britton & Thomas, 1973; Rosen & Jerdee, 1976a, b, 1977; Bird & Fisher, 1986; Hassell et al, 1995; and Richardson, Wedd, Webber & Smith, 2013). On the other hand, positive age stereotypes on older workers found support in several researches (eg. Gordon, 1995; Guest & Shacklock, 2005; and Qu & Cheng, 1996). In addition, there were many advantages attractive to employers, such as loyalty, reliability, conscientiousness, productivity, maturity, dedication, low turnover, and hard-working (Ranzijn, 1999; Remenyi, 1994). Importantly, older workers were trainable in new skills (Bushko & Raynor, 1999; Salthouse & Maurer, 1996).

Human Resource Cost

The common belief that older workers are costly to be employed due to they are senior in tenure and already earning high remuneration. In Magd's study (2003), older workers should be used to boost productivity, raise employees morale at workplace and they had loyalty towards their companies, as such, even if the cost of recruitment may be high, it can be offset through older workers' low turnover and absenteeism. In Munnell, Sass and Sato's study (2006), more respondents said older workers cost less than younger workers. Unfortunately, employers did not believe that cost could be compensated with older workers know-how and performance (Brooke, 2003). In determining the validity on high cost stereotypes on older workers, it is hypothesizing that manager's hiring intention become less favourable if human resource cost is high.

Learning Ability

Studies showed that older workers were indeed trainable in new skills (Bushko et al, 1999; Salthouse et al, 1996). Kluge and Krings (2008) found just 53.3% believed that older workers were more

14

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

difficult to be trained than younger workers, and that Richardson et al (2013) perceived that a worker's trainability decreases with age increased. In determining the validity on older workers' ability to learn stereotypes, it is predicted that there is a positive influence between an older worker's inability to learn and manager's lesser intention to hire older workers.

Resistance to Change

Rosen et al (1976a,b; 1977) conducted several researches on comparative treatment of older and younger workers on age discrimination. Their studies found that among other negative stereotypes, older workers were more resistance to change and lesser flexible compared to younger workers. Respondents to the studies were less likely to recommend older workers for promotion, training or for transfer to jobs that involve creativity or more demanding jobs, instead, more likely to recommend them for dismissal. However, in another study (Hassell et al, 1995), older workers were found not resistant to change. Later, Weiss and Maurer (2004) replicated Rosen et al's study (1976a);Weiss et al (2004) found older and younger workers had similar opportunities for promotion, training and hiring except that older workers were more likely to resist changes. In determining the validity on manager's age stereotypes on older workers' resistance to change, it is hypothesizing that this stereotype positively influences a manager's intention to hire older workers.

Intention to hire

Fishbein and Ajzen (1975: 288) defined intention as a "... person's location on a subjective probability dimension involving a relation between himself and some action" and that intention is a measure of relationships between an individual and some actions, and how hard he is willing to try to perform the actions (Fishbein et al, 1975), and therefore, behavioral intention is an individual's decision or commitment to perform a given behavior (Ajzen et al, 1980). If an intention to perform a particular act is high, then the likelihood that the action will be high. This is to say that if an individual evaluates a certain act will result in a positive or negative outcome; he will form an attitude towards that particular action. If the outcome is positive, his attitude is likely to lead his intention to perform that particular act, but if the outcome is negative, his attitude towards his intention to perform is likely to be prohibitory (Ajzen, 1991). Lu, Kao & Hsieh (2011) found managers' positive attitudes towards older people related to their stronger intention to hire older workers.

MRAA 2012 states the minimum retirement age for workers is set at sixty, however, employers claimed that should workers be allowed to work till aged sixty, human resource and operation cost will be greatly increased. Managers with hiring authority or hiring decision makers shall play a crucial role to satisfy employers' contention, meeting the requirement in the law, and ease the shortage of labour problem in their organizations. As such a manager's age stereotype against older workers in term of employment cost, learning ability and resistance to change is likely to influence his intention to hire older workers. Hence, a hypothesis is developed that if a manager's hold positive age stereotype on older workers, his intention to hire them will be high.

Development of a conceptual framework

From literature reviewed, a hiring intention conceptual framework is developed. The present study shall predict the influence of the age stereotypes variables such as human resource cost on employment, older workers' learning ability and their resistance to change on managers' intention to hire older workers.

Diagram 1: The Proposed Framework on Influence of Age Stereotypes on Manager's Intention to Hire Older Workers

15

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

The study on the proposed framework shall be quantitative and targeted at hiring managers or hiring decision makers from various industries in the state of Selangor and Kuala Lumpur.

Conclusion

Given the aging population and the issues related to future labour shortages, there is a clear inference for management to develop new policies and practices aimed specifically to increase employment of older workers. (Shacklock et al, 2009). This study is vital to hiring managers with regard to create awareness on the importance of a diversify workforce and to better prepare to minimize liabilities with future potential age-bias lawsuits in view of changing time (Hassell et al, 1995), and lastly to initiate change on managers' attitudes toward hiring of older workers.

Acknowledgements

References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Process 50,* 179-211.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior.* Upper Saddle River, NJ: Prentice-Hall.

Bird, C. B., & Fisher, T. D. (1986). Thirty years later: Attitudes towards the employment of older workers. *Journal of Applied Psychology, 71(3)*, 515-517.

Britton, J.O. & Thomas, J.R. (1973). Age and sex as employment variables: View of employment service interviewers." *Journal of Employment Counseling 10,* 180-186.

Brooke, L. (2003). Human resource costs and benefits of maintaining a mature-age workforce. *International Journal of Manpower, 24(3)*, 260-283.

Bushko, D., & Raynor, M (1999). More on the aging worker: Who are they and how can they stay vital? *Journal of Management Consulting, 10,* 68-69.

Fishbein, M. & Ajzen, I. (1975). Belief, attitude, intention and behaviour: An introduction to theory and research. Addison-Wesley Publishing Company. Reading, Massachusetts.

Gordon, C (1995). Continuous employability: Mature workers in the new workplace', *Management Accounting,* 5-7.

Guest, R., & Shacklock K. (2005). The impending shift to an older mix of workers: Perspective from the Management & Economics Literatures. *International Journal of Organisational Behavior*, *10(3),* 713-728.

Hassell, B. L., & Perrewe, P. L. (1995). An examination of beliefs about older workers: do stereotypes still exist? *Journal of Organizational Behavior, 16,* 457-468.

Kirchner, W., & Dunnettee, M. (1954). Attitudes toward older workers. *Personnel Psychology*, 7: 257-265.

Kluge, A. & Krings, F. (2008). Attitudes toward older workers and human resource practices. *Swiss Journal of Psychology, 67(1),* 61-64.

Labour Force Survey Report 2010-2013. Malaysia. Department of Statistics, Malaysia, Putrajaya. June, 2011-June, 2014.

Lu, L., Kao, S. F., & Hsieh Y. H. (2011). Attitudes towards older people and managers' intention to hire older workers: a Taiwanese study. *Educational Gerontology*, *37(10)*, 835-853.

Magd, H. (2003). Management attitudes and perceptions of older employees in hospitality management. *International Journal of Contemporary Hospitality Management, (15/7), 393-401.*

Malay Mail (The), 24 July, 2012. Employers against retirement age extension. By T.K. Letchumy Tamboo.

Minimum Retirement Age Act (The), 2012. Percetakan Nasional Malaysia Berhad. Kuala Lumpur.

16

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

Munnell, A. H., Sass, S. A. & Soto M. (2006). Employer attitudes towards older workers: Survey results. *Center for Retirement Research at Boston College, USA, Series 3*, 1-14.

Population Projections, Malaysia. (2010-2040). Department of Statistics, Malaysia, Nov, 2012.

Qu, H., & Cheng, S. Y. (1996). Attitudes towards utilizing older workers in the Hong Kong hotel industry. *Int. J. Hospitality Management, 15(3),* 245-254.

Ranzijn, R. (1999). Psychological barriers to workforce participation of older adults. Paper presented at the National Conference of Council on the Ageing (Australia), Adelaide, SA, November.

Remenyi, A. (1994), *Safeguarding the employablity of older workers: Issues and perspectives',*

Lincoln Papers in Gerontology No. 27, Lincoln Gerontology Centre, LaTrobe University, Melbourne, Victoria.

Richardson, B., Wedd, J., Webber, L., & Smith, K. (2013). Age discrimination in the evaluation of job applicants. *Journal of Applied Social Psychology, 43,* 35-44.

Robbins, S.P. (2005). *Organizational Behavior*. (11ᵗʰed.) Pearson Education, Inc., Upper Saddle River, New Jersey, 07458.

Rosen, B., & Jerdee, T. H. (1976a). The nature of job-related age stereotypes. *Journal of Applied Psychology, 61(2),* 180-183.

Rosen, B., & Jerdee, T.H. (1976b). The influence of age stereotypes on managerial decisions. *Journal of Applied Psychology,61(4),*428-432.

Rosen, B. & Jerdee, T.H. (1977). Too old or not too old. *Harvard Business Review,* November, 97-106.

Salthouse, T.A. and T.J. Maurer (1996) "Aging, job performance, and career development" in J.E. Birren and K.W. Schaie (eds.) *Handbook of Psychology and Aging,* Academic Press, London, 353-364.

Star Online (The), 7 Dec, 2012. Dr Subra: Minimum Retirement Age Act will be implemented from July 1, 2013. Retrieved March 11, 2013 from http://www.thestar.com.my/story.aspx/?file=%2f2012%2f12%2f7%2fnation%2f20121207112706&

Weiss, E. M., & Maurer, T. J. (2004). Age Discrimination in Personnel Decisions: A Re-examination. *Journal of Applied Social Psychology, (34), 1551–1562.*

17

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Factors Affecting Female Lecturer Retention in Private Higher Institution in Perak

Juliana Abu Bakar[a], Zam Zuriyati Mohamad[b], Sharmeela-Banu, S.A[c]

[a]Universiti Tunku Abdul Rahman, Malaysia, juliana@utar.edu.my
[b]Universiti Tunku Abdul Rahman, Malaysia, zuriyati@utar.edu.my
[c]Universiti Tunku Abdul Rahman, Malaysia, sharmeelas@utar.edu.my

Abstract

The contribution of female lecturer in education profession is undeniable and their satisfaction is crucial to retain them in this field. This research was conducted with the aim to investigate the factors that influence the female lecturer satisfaction in private higher education institution in Perak, Malaysia. Subsequently it intends to examine the effect of female lecturer satisfaction on their job retention. Perceived Organization Support Theory and Theory of Organizational Equilibrium have been applied in this research to explain the relationship among the variables. Questionnaires were distributed to female lecturers in five higher private educations institution in Perak. The result shows that workplace diversity, workplace recognition and rewards and work life balance have a positive effect on female lecturer satisfaction, while workplace environment has no significant effect. The current research also found that job satisfaction has a significant effect on female lecturer retention. Among all the factors, workplace diversity has the highest effect on female lecturer satisfaction. This implies that diverse workplace with variety of ethnic, education level and job position will influence female lecturer satisfaction. It is expected that this study will contributes to the management of higher education and also contribute to future researchers.

Keywords: Female Lecturer, Employee Retention, Job Satisfaction, Private Higher Education, Perceived Organization Support

Introduction

The competition to be the pioneer in establishing regional education hub is the vital for the current growth in cross-border higher education in Malaysia (Knight and Morshidi, 2011). According to World Economic Forum's (WEF) Global Competitive Index (GCI) report for year 2011-2012, Malaysia ranks 14 out of 142 countries on the quality of our education system. In order to face the challenges of globalizations and internalization, Malaysia is changing from production-based to knowledge-based economy which demands the expansion of skillful and sophisticated workforce (Sidhu and Kaur (2011).There are 20 public-funded universities, 37 private universities and university colleges and about 300 private colleges in Malaysia (Ministry of Higher Education, 2008). Whereas, Perak is moving towards to establish the comprehensive knowledge and educational hub under the K-Perak plan to endeavor attraction students from across the region. Therefore, according to Menteri Besar Datuk Seri Dr Zambry Abdul Kadir, the raising numbers of higher learning institution in Perak has been a part of strategy to achieve Perak Maju Plan 2015 Malaysian Chronicles (2013).

Nowadays, lecturers are not just delivered lecture in class. The burden of duty now including teaching and also doing other administrative services that need much more commitment from the staff. Female lecturer experienced more stress compared to male counterparts (Nur Aqilah & Juliana, 2012). This leads to higher rate of turnover among lecturers in private university. In addition, better offer from other institutions such as higher salary, less workload and better opportunity for career advancement might also attribute to this problem. The higher rate of turnover among lecturers in university may affect the productivity and efficiency of the company in future. It will give a bad reputation to the institution and student may also have lost confident and choose to go to other private university that might have a better

18

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

reputation. It is clear that turnover of experts and knowledgeable person can reduce the performance of knowledge-based organization. Women are facing difficulties in doing dwi-duties as a housewife at home and also as an employer at the work place. Heavy responsibilities at home and no sufficient time to do all tasks at one time including taking care of their kids are always be a main reason for a woman to give their resignation letter. Women are likely to leave their job due to domestic and social responsibilities than male which leads to higher voluntary retention rate among them. Therefore, job satisfaction is crucial as it is related to job performance and turnover and in the 21st century, this has become a serious problem in the management of educational institutions (Anil Kumar Agnihotri, 2013).

Accordingly, the purpose of this study is to identify the factors affecting retention among female lecturers in private higher education institution in Perak state. This study investigated whether the turnover retention among female lecturers are influenced by the level of job satisfaction that will be measured by four main determinants; workplace diversity, workplace balance, workplace recognition & rewards, and workplace environment. Besides, this study also identified the most significant factor that influencing turnover retention among female lecturers in private university located in Perak. This study goes beyond the underlying components of job satisfaction to discover the new insight of job satisfaction variables among academician.

Operationalization of Research Variables

Diversity in the organizational structure is the co-existence of employees within the organization which are from diverse socio-cultural background including race, gender, age, physical ability (Henry and Evan, 2007). Researchers (Pitts, 2006; Kellough & Naff 2004; Naff & Kellough 2003) found that workplace diversity enhances an employee's efficiency, organizational achievement and persistent competitiveness. Hence, matching the organizational mission with workplace diversity tends to escalate employee satisfaction and retention, increases responsiveness and certainly adds value to the final consumers (Langbein & Stazyk, 2013; Pitts, 2006).

Work life balance described the equivalent level of commitment and satisfaction of an employee towards their working life and family life (Greenhaus, Collins and Shaw, 2003). A part from improving organizational financial performance, work life balance tends to raise employee satisfaction and generate labor efficiency (Konrad and Mangel, 2000; Lambert, 2000). Therefore, work life balance has significant importance in determining employee behavior towards the organization (Rani, Kamalanabhan & Selvarani, 2011). According to Hammer et al. (2008), employee's job satisfaction and their devotion towards the organization increased when the employers fostering the integration between work and family responsibilities. Additional to that, Clarke, 2001 found that U.S. Bureau of Labor Statistics categorized work life balance as one of the five key factors that will influence employees and their working place during 21st century.

A reward system is defined as structured method of evaluating and compensating employees based on their performance (Nathaniel, Geraldo & Marie, 2010). Recognition is the demonstration of appreciation for a level of performance, an achievement or a contribution to an objective. It can be confidential or public, causal or formal and it is always in addition to pay. According to Carolina (2010), two major factors that affect work motivation in a company are intrinsic and extrinsic reward. The same factors has been found by Nadia, Syed & Humer (2011) and Godday, Kenneth and Zechariahs (2013), but their study shows that extrinsic is more related to job satisfaction compared to intrinsic reward. Tahira, Saif, Syed and Khalid (2013) identified the relation of reward practices in higher education institution in United Kingdom and they found that the higher education system offers both monetary and non-monetary rewards to faculty members and make them competent because its consider that the faculty members as a social agents. According to Shagufta and James (2013), higher reward and satisfied employees play a major role for job satisfaction as well as employee productivity in that organization.

Workplace environment described the surrounding conditions for the employee in performing their duties. The work environment can be composed of physical conditions and it can also be related to factors such as work processes or procedures. According to Khuong and Tien, (2013) the factors of

19

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

working environment includes the facilities in doing the job, comfortable workplace, safety workplace and the degree of noise. It is notable from the prior empirical studies that workplace environment do influence the job satisfaction (Bhavani & Anbuoli, 2012); (Leblebici, 2012)(Qasim, Azam Cheema, & Syed, 2012) and (Mokaya, Musau, Wagoki, & Karanja, 2013). The workplace environment plays an important role in job satisfaction as the employee mentally and physically demanding a good working condition (Parvin & Nurul, 2011). Ironically, there is a need to provide a healthy work environment that can protect the employee mentally and physically especially for female lecturer. Inadequate and deteriorating infrastructure and facilities which drastically limit the carrying capacity coupled with the increased enrolment of student have made work very stressful for the lecturers (Iyabo, 2013) and consequently will influence their job satisfaction.

Studies on job satisfaction began in the early 1900's in United States when psychologists in the field of industry conducted an array of studies on industry workers to determine the extent of their job satisfaction (Ghazi & Shahzada, 2012). From thereon, job satisfaction has been defined in various ways. According to Robbins and Judge (2013), job satisfaction is positive feelings about a job, resulting from an evaluation of its characteristics. The recent definition of job satisfaction is from Jeet and Sayeeduzzafar, (2014), whereby they define job satisfaction as an attitude that resulted from harmonizing and summation of numerous precise likes and dislikes experiences with the job. Job satisfaction is important for human resource management and has been proven by literature to have a significant effect on employee retention. Generally, employee retention refers to the ability of the organization to retain their employee from leaving the organization. A study by Terera and Ngirande, (2014) found that job satisfaction has positively influence the employee retention of academic staff at selected tertiary institution in the Eastern Cape Province. The result from the research conducted by Awan,(2013) in service sectors organization of Pakistan also concluded that job satisfaction effect employee retention. On top of that, Mostafa, (2012) strongly recommended that employee retention is relay on job satisfaction.

Theoretical framework

Perceived Organization Support (POS) that developed from Organizational Support Theory has been employed as the foundation for this study. It was proposed by Eisenberger, Huntington, Hutchison, and Sowa (1986) who suggested that employee will form global beliefs concerning the extent that organization values their contributions and cares about their well-being. The organization support can discharge by providing a diversity workplace, a work-life balance workplace, rewards and recognition and safety workplace. Employees who feel supported by the organization will be satisfied with their job and in return will retain with the company. High levels of perceived organizational support creates feelings of obligation, to the employers as well as makes them feel they have to return the employers' commitment by engaging in behaviors that support organizational goals (Ahmad & Yekta, 2010). Previous studies have proven that POS influence job satisfaction (Miao, 2011); (Colakoglu, Culha, & Atay, 2010)(Rutherford, Boles, Hamwi, & Rutherford, 2009). On the other hand the link between job satisfaction and employee commitment was developed from Theory of Organizational Equilibrium. This theory was created by March and Simon in 1958 who suggested that employees will be more likely to stay with the organization when they are satisfied with their job (Hausknecht, Rodda, & Howard, 2008)

Methodology

This study has employed quantitative approach where questionnaires were distributed in-person to the target respondents. The target population for this study is female lecturers whom teaching in Private Higher Education Institution in Perak. Those institutions are Universiti Tunku Abdul Rahman, Quest International University Perak, UniKL Royal College of Medicine Perak, Kolej Universiti Islam Sultan Azlan Shah and Kolej Tunku Abdul Rahman. A pilot test has been carried out among 30 female lecturers from the selected universities. Pilot test has been conducted to gather useful feedbacks from the respondents and to improve the overall quality of the questionnaire before commencement of the actual data collection. Overall, the Cronbach's Alpha value is 0.6 and above, therefore, all the measuring variables are reliable and the questions used to measure the variables are consistent. Meanwhile, 200 completed questionnaires were distributed to the selected universities with a specified time period of two

20

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

weeks. However 100 copies of questionnaires only had been returned after the two weeks period to conduct further research.

Data Analysis and Discussion

The questionnaires have been completed by 100 female lecturers whereby 62% of them is from age 25 to 35 years old. 58% of respondents are Malay, 22% are Chinese while the remaining are Indian and other races. Majority of them has been working with the organization for less than 5 years. The objective of this study is to investigate the factors that influence the female lecturer satisfaction in private higher education institution in Perak, Malaysia. Multi Linear Regression (MLR) has been used to analyze the data and the result presented in table 1.

Table 1: Model Summary

R	R Square	Adjusted R Square	Significant
0.62	0.396	0.37	0.00

Based on table 1, R square of this model was 0.396 which indicates that 39.6% of the variation in female lecturers' job satisfaction can be explained by the independent variables. The remaining 60% can be explained by other variables which are not investigated in this research. The result also concluded that the model was fit as the p-value is 0.00.

Table 2: Coeffiecient

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
Constant	.265	.450		.589	.557
WD	.502	.124	.401	4.049	.000
WB	.222	.103	.190	2.161	.033
WR	.288	.108	.303	2.669	.009
WE	-.085	.121	-.086	-.700	.486

Table 2 shows that workplace diversity, work life balance and workplace rewards and recognition were significantly affect female lecturers' job satisfaction while workplace environment do not affect the female lecturers' job satisfaction. The following liner equation was formed: JS = 0.265 + 0.52WD + 0.222WB + 0.288WR – 0.85WE
Whereby:

JS = Female Lecturer Job satisfaction   WB   = Work life balance
WR= Workplace rewards and recognition   WE   = Workplace environment
WD = Workplace diversity

From the above equation, a unit increase in WD will increase JS by 0.502 while holding WB, WR and WE constant. Similarly, a unit increase in WB and WR will raise JB by 0.22 and 0.288 respectively

21

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

while other independent variables remain status quo. However, the p-value for WE was 0.486. Thus, WE were not significantly predicting the percentage of JS.

Another objective of this study was to examine whether female lecturers' job satisfaction affect the employee retention. Data has been analysed using simple linear regression and presented in table 3. The output proved that job satisfaction significantly influences the female lecturer with the R square of 0.479 and p value is 0.00.

Table 3: Model Summary

R	R Square	Adjusted R Square	Significant
.692[a]	.479	.473	0.00

Table 3 indicated that 47.9% of female lecturers' retention was influenced by their job satisfaction. The p-value was <.0001, which was less than 0.05 and this indicated that the research model was fit.

Table 4: Coeffiecient

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
Constant	.799	.287		2.779	.007
JS	.742	.78	.692	9.487	.000

Table 4 shows that the p-value was < .0001, which was less than 0.05. The regression equation is: **ER = 0.799 + 0.742 JS**
Whereby, ER is Employee Retention and JS is female lecturer job satisfaction
Based on the regression equation above, for every increase in female lecturers' job satisfaction, employee retention will increase by 74.2%, provided other variables remain unchanged.

Conclusion

The results suggested that workplace diversity, work life balance and workplace rewards and recognition influence the job satisfaction of female lecturer in higher education institution in Perak. This findings was consistent with the past empirical study conducted by Langbein & Stazyk, 2013; Pitts, 2006; Hammer et al., 2008, stated that the positive workplace diversity and work life balance tends to increase employee satisfaction and retention rate of an organization. The incorporation between working field and family bonding would certainly raise employee satisfaction (Nadia, Syed & Humer, 2011). Among all the variables, workplace diversity has the highest influence on job satisfaction. It is believe that diversity in workplace able to create a variety of ideas for improvement in job satisfaction as there are different races, different level of job position and different education background in the organization. In addition, work life balance also influences the job satisfaction. Organization that provides a work life balance can reduce the stress and work life conflict among their employee.

Rewards and recognition are other factors that influence the job satisfaction as it shows the company appreciation towards its employee. In this study, workplace environment was found not significant with female lecturers' job satisfaction and this is in line with the past study conducted by Hertzberg et.al (1959) has become one of the most replicated studies in the field of employees' satisfaction. Herzberg identified that some factors as a 'motivator' to motivate the workers, while there

22

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

was another factor known as 'hygiene factor' lead to job dissatisfaction. Comfortable and adequate working conditions have been found that it is not significant to enhance employees' satisfaction in the workplace. This study also concluded that employee retention among female lecturer in higher education institution in Perak is depending on their job satisfaction. This is consistent with the research by Awan,(2013). Ideally, employee will remain with the company if they satisfied with the workplace and rewards that they received.

References

Ahmad, Z. A., & Yekta, Z. A. (2010). Relationship Between Perceived Organizational Support, Leadership Behavior, and Job Satisfaction: An Empirical Study in Iran. *Intangible Capital*, *6*(2), 162–184.

Anil Kumar, A. (2013). Job Satisfaction Among School Teachers. *Indian Streams Research Journal*, 3(2).

Awan, A. (2013). Impact of Employee Orientation on Retention: A Case of Service Sector Organization's in Pakistan. *Interdisciplinary Journal of Contemporary Research in Bussiness, 5*(4), 326–333.

Bhavani, T. R., & Anbuoli, P. (2012). A Study of Job Satisfaction Correlates with Work Environment Among Employees in Textile Industries. *Research Journal of Social Science & Management*, *2*(8), 1–7.

Carolina, M. (2010). The Impact of a Reward System of Employee Motivation in Motonet-Espoo. *Degree Thesis of International Bussiness.*

Clark, S. C. (2001). Work cultures and work/family balance. *Journal of Vocational Behavior*, 58(3), 348-365.

Colakoglu, U., Culha, O., & Atay, H. (2010). The Effects of Perceived Organisational Support on Employees's Affective Outcomes: Evidence From the Hotel Industry. *Tourism and Hospitality Management*, *16*(2), 125–150.

Eisenberger, R., Huntington, R., Hutchison, S., and Sowa, D. (1986). Perceived Organizational Support. *Journal of Applied Psychology*, 71: 500–7.

Ghazi, S. R., & Shahzada, G. (2012). School Location and Size as Predictors of Head Teachers ' Job Satisfaction. *Meditteranean Journal of Social Sciences*, *3*(January), 613–625.

Godday, O., Kenneth, C., & Zechariahs, B. (2013). Job Rewards as Correlates of Job Satisfaction: Empirical Evidence from the Nigerian Banking Sector. *The International Journal of Engineering and Science*, 2(8), 62-68.

Greenhaus, J. H., Collins, K. M., & Shaw, J. D. (2003). The relation between work–family balance and quality of life. *Journal of Vocational Behavior*, 63(3), 510-531.

Hausknecht, J., Rodda, J. M., & Howard, M. J. (2008). Targeted Employee Retention : Performance-Based and Job-Related Differences in Reported Reasons for Staying. *CAHRS Working Paper Series.*

Herzberg, F., Mausnen, B., & Snyderman, B. (1959). The Motivation to Work (2nd ed.): *New York: John Wiley & Sons*

23

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Iyabo, O. M. B. (2013). Sources of Workplace Stressors Among University Lecturers in South West Nigeria: Implication for Counselling. In *1st Annual International Interdisciplinary Conference* (pp. 24–26).

Jeet, V., & Sayeeduzzafar. (2014). A Study of HRM Practices and It's Impact on Employees Job Satisfaction in Private Sector Banks: A Case Study of HDFC Bank. *Interntional Journal of Advance Research in Computer Science and Management Studies*, *2*(1), 62–68.

Kellough, J. E., & Naff, K. C. (2004). Responding to a Wake-up Call An Examination of Federal Agency Diversity Management Programs. Administration & society, 36(1), 62-90.

Khuong, M. N., & Tien, B. D. (2013). Factors Influencing Employee Loyalty Directly and Indirectly Through Job Satisfaction - A Study of Banking Sector in Ho Chi Minh City. *International Journal of Current Research and Academic Review*, *1*(4), 81–95.

Knight, J., & Morshidi, S. (2011). The complexities and challenges of regional education hubs: Focus on Malaysia. Higher Education, 62(5), 593-606.

Konrad, A. M., & Mangel, R. (2000). Research notes and commentaries the impact of work-life programs on firm productivity. *Strategic Management Journal,* 21(12), 1225-1237.

Lambert, S. J. (2000). Added benefits: The link between work-life benefits and organizational citizenship behavior. *Academy of Management Journal,* 43(5), 801-815.

Langbein, L., and Stazyk, E. C. (2013). Vive la Différence? The Impact of Diversity on the Turnover Intention of Public Employees and Performance of Public Agencies. *International Public Management Journal,* 16(4), 465-503.

Leblebici, D. (2012). Impact of Workplace Quality on Employee's Productivity: case Study of a Bank in Turkey. *Journal of Business, Economics & Finance*, *1*(1), 38–49.

Malaysian Chronicles. (2013). Zambry confident Perak will become developed state by 2015. http://malaysia-chronicle.com/index.php?option=com_k2&view=item&id=151591:zambry-confident-perak-will-become-developed-state-by-2015&Itemid=2#ixzz3AKiIqtWI (Retrieved on 14 August 2014).

Miao, R. T. (2011). Perceived Organizational Support, Job Satisfaction, Task Performance and Organizational Citizenship Behavior in China. *Journal of Behavioral and Applied Management*, 105–127.

Ministry of Higher Education, Malaysia. (2008). Malaysian Strategic Plan for Higher Education Institutions. Putra Jaya: Malaysian Ministry of Higher Education.

Mokaya, S. O., Musau, J. L., Wagoki, J., & Karanja, K. (2013). Effects of Organizational Work Conditions on Employee Job Satisfaction in the Hotel Industry in Kenya. *International Journal of Arts and Commerce*, *2*(2), 79–90.

Mostafa, K. G. (2012). The Impact of the Job Satisfaction on Employee. *Independent University Bangladesh*.

Nadia, S., Syed, S., & Humera, J. (2011). Relationship Between Rewards and Employee's Motivation in the Non-Profit Organizations of Pakistan. *Bussiness Intelligence Journal,* 4(2), 327-334.

24

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Naff, K. C., & Kellough, J. E. (2003). Ensuring employment equity: are federal diversity programs making a difference?. *International Journal of Public Administration,* 26(12), 1307-1336.

Nathaniel, H., Geraldo, C. ,& Marie, P. (2010). Reward Systems & Incentives. *Human Resources & Labor Management*

Nur Aqilah, M. Y., & Juliana, J. (2012). Association between Occupational Stress and Respiratory Symptoms among Lecturers in Universiti Putra Malaysia. *Global Journal of Health Science*, *4*(6), 160–169.

Parvin, M. M., & Nurul, K. M. M. (2011). Factors Affecting employee Job Satisfaction of Pharmaceutical Sector. *Australian Journal of Business and Management Research*, *1*(9), 113–123.

Pitts, D. (2009). Diversity management, job satisfaction, and performance: Evidence from US federal agencies. *Public Administration Review,* 69(2), 328-338.

Qasim, S., Azam Cheema, F. E., & Syed, N. A. (2012). Exploring Factors Affecting Employees ' Job Satisfaction at Work. *Journal of Management and Social Science*, *8*(1), 31–39.

Rani, S., Kamalanabhan, T. J., & Selvarani, M. (2011). Work/Life balance reflections on employee satisfaction. *Serbian Journal of Management*, 6(1), 85-96.

Robbins, S. P. & Judge, T.A. (2013). Organizational Behavior. 15th ed. *England : Pearson Education Limited.*

Rutherford, B. B., Boles, J. S., Hamwi, G. A., & Rutherford, L. G. (2009). Perceived Organizational Support and the Seven Facets of Salesperson Job Satisfaction, *Journal of Selling & Major Account Management,* 8–20.

Shaguffa, S. & James, A. (2013). The Influences of Reward and Job Satisfaction on Employees in the Services Industry. *The Bussiness and Management Review*, 3(2), 22-32.

Sidhu, G. K., & Kaur, S. (2011). Enhancing global competence in higher education: Malaysia's strategic initiatives. In Higher education in the Asia-Pacific (pp. 219-236). *Springer Netherlands.*

Tahura, N. Saif, R. Syed, F. & Khalid, Z. (2013). Impact of Reward and Compensation on Job Satisfaction: Public & Private Universities of UK. *Middle-East Journal of Scientific Research*, 14(3), 394-403.

Terera, S. R., & Ngirande, H. (2014). The Impact of Training on Employee Job Satisfaction and Retention among Administrative Staff Members: A Case of a Selected Tertiary Institution. *Journal Social Science*, *39*(1), 43–50.

Wessels, C. (2012). Getting Engaged: It's more than saying "Yes" to your Organization. *Unpublished master's thesis*, Erasmus University Rotterdam.

25

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

A relationship marketing based student loyalty model for the Malaysian higher education industry

Lee Lai Meng

Universiti Tunku Abdul Rahman, Malaysia

lmlee@utar.edu.my

Abstract

Student loyalty is a major goal of educational institutions due to its various advantages like competitive advantage, providing financial support and influence teaching quality via committed behavior. The passing of the Private Higher Education and Institution Act 1996 (PHEIA, 1996, Act 555) has seen the number of private higher learning institutions mushrooming in Malaysia. Thus, the situation calls for private institutions of higher learning to determine factors that are important to prospective and current students. In educational services, loyalty requires developing a solid and long term relationship. This paper proposes for student loyalty to be modeled after Oliver's loyalty model (1999) which follows a sequential process with the mediating effect of satisfaction, trust and commitment. Combined with Morgan and Hunt's KMV model of relationship marketing, this proposed model will provide better diagnostic capabilities to study student loyalty. A long term student loyalty model would have significant impact on the study of higher education institutions and their relationship with their students. It would also have practical consequences for the universities who would like to apply relationship marketing.

Keywords: Oliver's loyalty model, service quality, shared values, relationship benefits, satisfaction, trust, commitment, relationship marketing, student loyalty, higher educational institutions.

Introduction

As the education industry becomes more and more competitive, higher educational institutions will need to understand their customer's need to ensure that they will be able to attract potential news students and retain current ones. To achieve this, higher educational institutions will have to establish appropriate programs that promote, establish, develop and maintain successful long term relationships with both current and former students.

Student loyalty is one of the major goals of educational institutions. A loyal student population is a source of competitive advantage with outcomes such as positive word of mouth (W0M) communication, retention and repeat. (Thomas, 2011).

In a similar vein, Nguyen and LeBlanc (2001), state that having long term relationships with students may provide competitive advantages in educational institutions because students provide a stable source of income to the institutions and the recommend their institutions to friends and relatives.

Student loyalty is a key objective for many higher education institutions for many reasons. For most privately owned universities, tuition fees are the main source of income. Retaining students means a steady and solid stream of income for the running and profitability of the university. (Hennig-Thurau, Langer and Hansen, 2001).

Loyal students also influence teaching quality positively through active participation and a committed behaviour. (Thomas, 2011). The lecturer's own involvement in the course increases if students are highly motivated, jointly contributing to a classroom atmosphere that stimulates learning.

26

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Motivated students also contribute to research activities by tackling innovative subjects while writing thesis or by actively helping to collect data for research projects. (Hennig-Thurau et al, 2001).

After graduating, a loyal student may continue to support his or her academic institution through various means. Financially, by giving donations or financial support to the university. Through word of mouth promotion to other prospective, current or former students. Or through some form of cooperation like offering internship, job placement, giving lectures, etc. (Hennig-Thurau et al, 2001).

This paper attempts to explain long term student loyalty in higher educational institutions by examining key factors influencing the process of generating loyalty. These factors, service quality, image, reputation, shared values, relationship benefits, satisfaction, trust and commitment are articulated in a model that is assumed to be comprehensive enough to explain loyalty.

Background of the issue

There has been tremendous growth in the Malaysian higher learning industry, especially in the development of private higher educational institutions. The passing of the Private Higher Education and Institution Act. 1996 (PHEIA, 1996, Act 55) has contributed to the growth of private higher educational institutions.

The Malaysian government recognises that higher education plays an important role in meeting the manpower needs of the nation and it vision of a developed country. The Government recognises the role of private higher educational institutions in providing sufficient educational infrastructure as well as increasing the capacity to fulfill the demand for higher education. (Nasional Malaysia Berhad, 2006).

The Private Higher Education and Institution Act, 1996 Act 55, provides establishment, registration, management and supervision of private higher educational institutions. It is used to control the quality of education in private higher institutions and all matters connected with it. (Nasional Malaysia Berhad. 2006).

The Ministry of Higher Education report that in 1996, there were 9 public universities and no private university. Now according to the Ministry of Higher Education (MOHE) website, there are 20 public universities, 33 private universities and university colleges, 4 foreign university branch campuses, 22 polytechnics, 37 community colleges and about 500 private colleges.

This growth in the education industry provides more opportunities for potential student to continue their studies at higher levels. Now, students also have more choices to choose from to pursue their studies. This gives students more "bargaining power" compared to their predecessors before the growth of private institutions of higher learning.

This creates a competitive force as contended by Michael Porter (Wheelen and Hunger, 2008). Institutions of private learning will now have to step up their marketing programs to attract new students and retain existing ones. Thus, the issue of student loyalty becomes paramount if they wish to survive and thrive in the highly competitive education industry.

Competition not only exists in private institutions of higher learning, but public ones as well. Recently, public institutions of higher learning were given the tasks to increase the number of postgraduate student enrollment, This is in line with the Government's 9th Malaysian plan mission to create and strengthen human capital resources. (Mohamad and Awang, 2009).

Thus, the issue of student loyalty becomes important for public institutions of higher learning as well, how to attract and retain their students to continue with their post graduate studies at their graduating institution of higher learning.

27

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

The theory of brand loyalty (Oliver, 1999)

According to Sawmong and Omar (2004) the most significant measurement model of customer loyalty is put forth by Oliver (1999). His model follows the cognitive-affective-conation pattern and suggests a four stage loyalty model.

Stage 1: Cognitive loyalty. At this stage, customer loyalty is determined by information or knowledge regarding the product, such as price, quality, etc. It is the weakest form of loyalty because it is directed to the cost and benefits of the product only. Consumers are making purchasing decision based on pricing and will readily switch once they find another retailer that is offering the same product at a cheaper price. (Oliver, 1999, Sawmong and Omar, 2004).

Stage 2: Affective loyalty. At this stage, loyalty is related to a favorable attitude towards a specific brand, and is built on affect. It is built over time by the basis of cumulatively satisfying usage occasion. Commitment at this stage is encoded in the consumer's mind as cognition and affect. Whereas cognition is subject to counter argument, affect is not so easily dislodged (Sawmong and Omar, 2004).

Stage 3: Conative loyalty. At this stage, loyalty must be accompanied by the desire to an intended action. Conation, by definition, implies a product- specific commitment to repurchase. Customers at this stage make a commitment to rebuy a product consistently in the foreseeable future. In effect, the consumer desires to repurchase, but similar to any good intention, this desire may be anticipated but unrealized action. (Sawmong and Omar, 2004).

Stage 4: Action loyalty. At this final stage, all intentions are transformed into action. In the earlier three stages, loyalty states may result in the readiness to act/buy, but in this final stage, this readiness is accompanied by the customer's willingness to search for that particular product despite considerable effort or obstacles. Competitive products are not considered as alternatives. (Oliver, 1999).

Antecedents of student loyalty

Antecedents of student loyalty have been identified in previous research. Two streams of research are relevant when explaining student loyalty: one emphasizes cognitive elements the other emphasizes long term relationships (Rojas Mendez et al, 2009).

Service quality

Delivering quality service is now considered any important strategy for organizational success in today's competitive environment. (Parasuraman, Zeithaml, Berry and Leonard, 1985, Zeithaml, Berry, Leonard and Parasuraman, 1996).

Marketing theorist has long agreed that service quality results in significant gains for any organization. Ziethaml et al (1996), posit that when a customer's assessment of service quality is high, the customer's behavioural intentions are favourable, which strengthens his or her relationship with the company. When service quality assessments are low, the customer's behavioural intentions are unfavourable and the relationship is more likely to be weakened. Behavioural intentions can be viewed as indicators that signal whether customers will remain with or defect from the company.

Parasuraman, Zeithmal, Berry and Leonard (1988) defined service quality as a judgement or attitude relating to the superiority of the service. In a similar vein, Spreng, Shi and Page (2009) defines service quality as the judgement of excellence performance based on the customer's cumulative experience.

Most researchers concur that the conceptualization of service quality involves a comparison of expectations with performance. Parasuraman et al(1985) state that perception of service quality is a result of a comparison between what consumers consider the service should be and their perceptions

28

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

and the actual performance offered by the service provider. Thus, consumer's assessment of quality is subjective and such perceptions of service quality are thus "elusive".

Image

It is becoming increasingly important that universities have a distinct image in order to maintain their competitiveness in the market. (Palacio, Meneses, and Perez, 2002). They state that numerous universities have increased their investments in order to distinguish themselves from their competitors, by strengthening the image of "prestige" and "quality'. Having a strong positive image for a university will have an impact on student retention as well as attracting new students.

Image is defined as the overall impression made on the minds of the public about an organisation. It is related to the various physical and behavioural attributes of the organization such as business name, architecture, variety of products/services, tradition, ideology and the impression of quality communicated by persons experiencing the service/product. (Barich and Kotler, 1991).

Kennedy (1977) proposes that image has two principal component; functional and emotional. The functional component is related to tangible characteristics like building, people, facilities, location and can be easily measured. The emotional component is associated with psychological dimensions that are manifested by feelings and attitudes towards an organization. These feeling are derived from an individual's experiences with an organization and from the processing of information on the attributes that constitute functional indicators of image.

There are many advantages to having a positive image for an organizations. According to Mohamad and Awang (2009), the favourable corporate image of an organization may be helpful in the competitive market since it might differentiate the organization from its competitors. They also found that the image of the higher learning institution has an impact on customer's post purchase experiences (student loyalty.) They suggest that higher institutions of learning should not overlook to build a favourable corporate image since it has an impact on student's perception of the organization.

Reputation

What is reputation? How can it be defined? To date, most leading definitions of reputation has regarded it as the total perception of all stakeholders towards a company. (MacMillan, Money, Downing and Hillenbrand, 2005).

Key words for defining reputation include the total, aggregate or overall perception of a company from its stakeholders after buying or using the products/services of the organization. It reflects the general esteem in which an organization is held by its stakeholders. (Thomas, 2011, MacMillan et al, 2005).

Although different terms are used to describe and define reputation, there appears to be a consensus on the essence of the concept: it is the result of the past actions of an organization. Reputation may be viewed as a mirror of the organization's history that serves to communicate to its target groups the quality of its products/services in comparison with those of its' competitors. (Dowling, 1986).

Having a positive reputation is important for institutions of higher learning., especially in the highly competitive education industry. Awang and Jusoff (2009) state that corporate reputation literature revealed that competing firms offering similar range of products/services could differentiate themselves from their competitors and could enjoy a certain level of competitive advantage. Thus, the corporate reputation of an organization should be considered an asset and wealth that gives that firm a competitive advantage because that firm will be regarded as reliable, credible, trustworthy and responsible for their stakeholders.

As to the relationship between reputation and loyalty. according to Standifird (2005), students form perceptions about both their university and their specific study program. These positive or negative

29

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

perceptions will have an impact for attracting or retaining students. Thus, he surmises that reputation management is an important factor in student loyalty.

Sectors in the service industry like institutions of higher learning, rely heavily on their corporate reputation to attract and retain their customers. (Nguyen and LeBlanc, 2001). Their research found that customers are more inclined to purchase the products/services from organizations they perceive as having favourable reputation among their competitors.

Satisfaction

There is no clear consensus among researchers on the definition of satisfaction. However, most definitions refer to an evaluative, affective or emotional response that evolved with the experience a consumer has with goods or services over time.

Dick and Basu (1994) and Oliver (1999) suggest that satisfaction is the affective antecedent of customer loyalty. They state that the relative attitude (attitudinal loyalty) of the customer will affect their behavioural intention (behavioural loyalty). Thus, if they are not satisfied, they will have a negative relative attitude towards the supplier and if they are satisfied, they will have a positive relative attitude instead.

Hennig-Thurau and Klee (1997) who state that customer satisfaction about the organization's products and services are often seen as the key to an organization's success and long term competitiveness. Their research found that the concept of customer satisfaction in the beginning might be tied to the particular product or services experience, but with repeated purchases, in time it will fade into a more stable, attitude like overall evaluation of the long term relationship.

Trust

Morgan and Hunt (1994) define trust as existing when one party has confidence in an exchange partner's reliability and integrity. This is similar to Moorman, Desphande and Zaltman (1993) definition which defines trust as the willingness to rely on an exchange partner to whom one has confidence.

They go on to say that each partner's ability to provide positive outcomes to the other determines commitment to the relationship, therefore trust is a major determinant of relationship commitment and exists when there is confidence in a partner's reliability and integrity.

In the educational field, students' trust may be understood as the students' confidence in the university's integrity and reliability. Students' trust is developed through personal experiences with the institution's employees. It an educational institution desires to build long term relationships with its students, it has to develop trust as part of the relationships. (Rojas-Mendez et al, 2009).

Morgan and Hunt (1994) found that trust and commitment in the relationship helps raises levels of cooperation and acquiescence among members, a reduced tendency to leave the network, the belief that conflict will be functional and reduced decision making uncertainty. This model is important to relationship marketing because it illustrates to them the importance of commitment and trust as antecedents to customer loyalty. It also provides a framework for companies to execute their strategies based on the factors in the KMV model to gain customer trust and commitment, which leads to repeat purchases, and ultimately loyalty.

Commitment

The inclusion of commitment into the relationship marketing literature is usually potrayed as a mediator between consumer satisfaction and consumer behavior. Morgan and Hunt (1994) defines relationship commitment as an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it, that is, the committed party believes the relationships is worth working on to ensure that it endures indefinitely.

30

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

According to Tinto (1975), student's commitment is determined by his or her degree of integration, both academic (participation in university societies and committees) and social (friendships and acquaintances with fellow students). Thus, commitment refers to the fit between the students' abilities, skills and value system and the university's expectations, demands and values.

Commitment is also positively related to loyalty and repeated purchases and because relationship performance is critical to repurchase decisions in a relational exchange, business loyalty is similar to relationship commitment (Morgan and Hunt, 1994).

In term of the relationship between commitment and loyalty, Dick and Basu (1994) suggest that potential consequences of commitment may include word of mouth communications- an important aspect of attitudinal loyalty. Customer who has high commitment to a product or service will buy more and recommend more.

Shared values

Shared values are defined as the extent to which partners have beliefs in common about what behaviors, goals and policies are important or unimportant, appropriate or inappropriate and right or wrong (Morgan and Hunt, 1994). It means that two parties having similar perceptions on certain issues can enhance their communications and avoid misunderstanding, thus achieving a long term relationship, Consistent with organizational behavior literature, when partners share the same values, they will be more committed to their relationships.

In a study conducted amongst pharmacy students, Holdford and White (1997) found that students who shared the same goals and ideas and code of conduct with their universities were more likely to commit to a relationship with the institution.

Relationship benefits

A student is also a consumer because he or she consumes educational services. Thus, similar to every other consumer, students are always looking for benefits in their relationship with their educational institution. This is similar to what Finney and Finney (2010) who state that students are customers of education and expect to get benefits in the relationship.

The relationship marketing theory suggest that in a competitive global marketplace, partner selection may be a key element in competitive strategy (Morgan and Hunt, 1994).

The ability to provide superior benefits and value to customers is a prerequisite when establishing relationships with customers (Ravald and Gronroos, 1996).

Morgan and Hunt (1994) considered relationship benefits as the quality of services and goods relative to other suppliers. Relationship benefits are the superior benefits provided to customers which are highly valued by customers.

Developing a conceptual model of student loyalty from a relationship marketing perspective

Combining Oliver's loyalty model (1999) which follows a sequential process with the mediating effect of satisfaction, trust and commitment with Morgan and Hunt's KMV model of relationship marketing, this proposed model will provide better diagnostic capabilities to study student loyalty.

The review of the literature and results from relevant past research related to this subject has led this paper to propose that service quality of the institution of higher education has effects towards the students' satisfaction, trust and commitment and ultimately on their loyalty. The service quality of the institution of higher learning will also have an effect towards the student's perception of the image and reputation of the institution of higher education.

31

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

The image and reputation of the institution as perceived by students will have an effect on the trust of the students' towards the institution, and ultimately on their relationship commitment and loyalty.

The shared values and relationship benefits between the student and institution of higher education will have an effect on the level of relationship commitment and ultimately effecting the students' loyalty.

Visually, the proposed model is shown below:
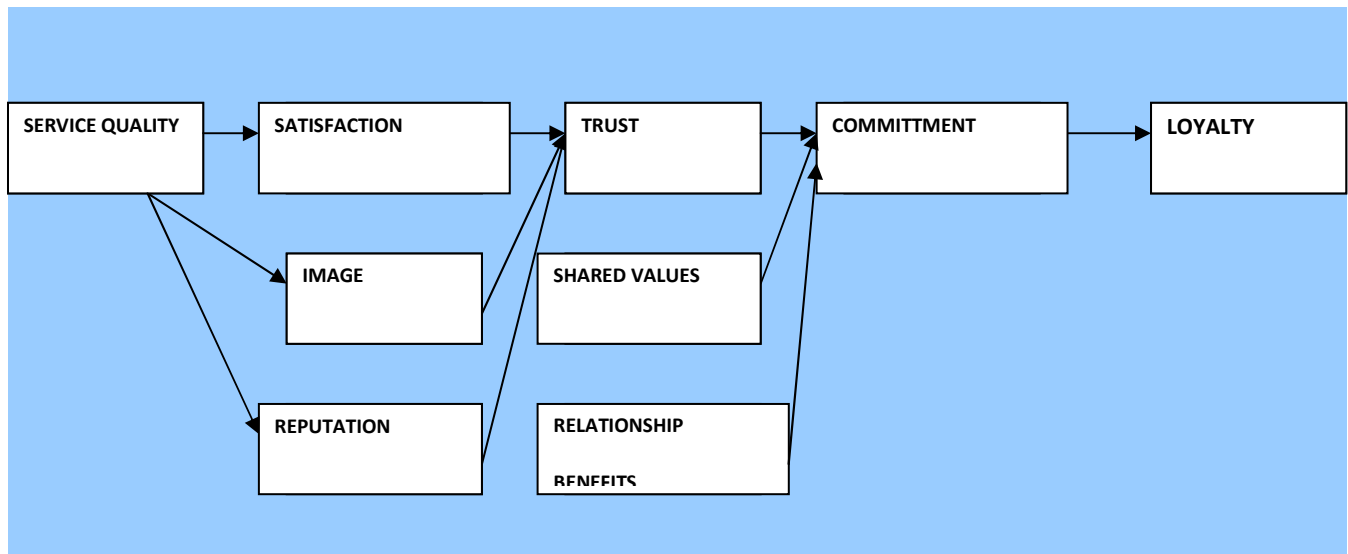
Conclusion

A long term student loyalty model would have significant impact on the study of higher education institutions and their relationship with their students. It would also have practical consequences for the universities who would like to apply relationship marketing. The marketing managers of institutions of higher education can now plan marketing strategies that will use this model to their benefit.

References

Abdullah. F. (2006). The development of HedPERF: a new measuring instrument of service quality for the higher education sector. International Journal of Consumer Studies, 30(6), 569- 581.

Awang, Z, and Jusoff, K.(2009). The effects of corporate reputation on the competitiveness of Malaysian telecommunication service providers. International Journal of Business and Management, 4(5).

Barich, H. and Kotler, P. (1991). A framework for marketing image management. Sloan Management Review, 32, 940-104.

Dick, A.S., and Basu, K. (1994). Customer loyalty: Towards an integrated conceptual framework. Journal of the Academy of Marketing Sciencem 22(2), 99-113.

Dowling, G.R. (1986). Managing your institutional image. Industrial Marketing Mangement, 15, 109-115.

32

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

Finney, T.G. and Finney. R.Z. (2010). Are students their universities customers? An exploratory study. Education and Training, 52(4), 276-291.

Hennig-Thurau, T, Langer, M.F. and Hansen, U. (2001). Modeling and managing student loyalty. An approach based on the concept of relationship quality. Journal of Science Research, 3(4), 331-344.

Hennig Thurau, Thorsten, Gwinner, Kevin P and Gremier, Dwayne, D. (2002). Understanding relationship marketing outcomes: An integration of relational benefits and relationship quality. Journal of Service Research, 4(3), 230-247.

Hennig-Thurau, Thorsten and Klee, Alexander. (1997). The impact of customer satisfaction and relationship quality on customer retention: A critical reassessment and model development. Psychology and Marketing, 14 (8), 737-764.

Holdford, D. and White, S. (1997). Testing commitment and trust theory in relationships between pharmacy schools and students. American Journal of Pharmaceutical Education, 61, 249-256.

Kennedy, S.H. (1997). Nurturing corporate image. European Journal of Marketing, 47, 9-20.

MacMillan, K., Money, K., Downing, S. and Hillenbrand, C. (2005). Reputation in relationships: Measuring experiences, emotions and behaviors. Corporate Reputation Review, 8(2), 214-232.

Mohamad, M. and Awang, Z. (2009), Building Corporate Image and Securing Student Loyalty in the Malaysian Higher Learning Industry. The Journal of International Management Studies, 4(1), 30-40.

Morgan, R.M & Hunt, S.D. (1994). The commitment-trust theory of relationship marketing. Journal of Marketing, 58(3), 20-39.

Moorman, Christine, Desphande, Rohit, Zaltman, Gerald. (1993). Factors affecting trust in market research relationships. Journal of Marketing, 57(1), 81-101.

Nasional Malaysia Berhad. (2006). Law of Malaysia: Act 555- Private Higher Educational Institutions Act 1996. Retrieved from http://jpt.mohe.gov.my/IPT/Act%20IPTS%20-%20BI.pdf

Nguyen, N and LeBlanc, G. (2001). Image and reputation of higher education institutions in students' retention decisions. The International Journal of Educational Management. 15/6, 303-311.

Oliver, R.L. (1999). Whence consumer loyalty? Journal of Marketing, 63, 33-44.

Parasuraman, A, Zeithaml, Valarie A, Berry, Leonard L. (1985). A conceptual model of service quality and its implications for future research. Journal of Marketing, Vol. 49, Issue 4, pp 41-50.

Parasuraman, A, Zeithaml, Valarie A, Berry, Leonard L. (1988). SERVQUAL: A multiple item scale for measuring consumer perception of service quality. Journal of Retailing, Vol. 64, No 1, pp 12-40.

Ravald, A. and Gronroos, C. (1996). The value concept and relationship marketing. European Journal of Marketing, 30(2), 19-30.

Rojas-Mendez, J.I., Vasquez-Parraga, A.Z. and Kara. A. Determinants of student loyalty in higher education: A tested relationship approach in Latin America. Latin American Business Review, 10, 21-39

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

33

Sawmong, S and Omar, O. (Sept 2004). The Store loyalty of the UK's retail consumers. Journal of American Academy of Business, Cambridge, 5, Issue 1(2), 503-509.

Spreng, R.A., Shi, L.S., Page, T.J. (2009). Service quality and satisfaction in business to business services. Journal of Business and Industrial Marketing, Vol.24, No.8, pp 537-548.

Standifird, S.S. (2005). Reputation among peer academic institutions: An investigation of the US News and World Report's rankings. Corporate Reputation Review, 8(3), 233-244.

Thomas, S, (2011), What drives student loyalty in universities: an empirical model from India. International Business Research, 4(2), 183-192.

Tinto, V. (1993). Leaving college: rethinking the causes and cures of student attrition. Chicago University of Chicago Press, 2nd edition.

Tinto, V. (1975). Drop out from higher education: a theoretical synthesis of recent research. Review of Educational Research, 45,89-125.

Wheelen,T.L. and Hunger, J.D.(2008). Strategic Management and Business Policy, 11th Edition. N.J. Prentice Hall.

Wong, H. and Wong. R. (2012). Relationship Building in Private Education. Global Journal of Management and Business Research, 12(13).

Zeithaml, Valerie A, Berry, Leonard L and Parasuraman, A. (1996). The behavioural consequences of service quality. Journal of Marketing, Vol. 60, pp 31-46.

Zainudin, A. (2007). The influence of service quality and corporate image on students' loyalty in higher education: The case study of a local university. Unpublished Phd thesis, Universiti Malaysia Trengganu, Malaysia.

34

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

A Study on Online Impulse Buying Behaviour: Impact of Financial Literacy and Demographic.

Che Siti Lazrina Bt Md Lazim[a], Norhusnaida Binti Che Hussain[b], Nurul Ikma Binti Haris[c], Dr. Mahmud Bin Hj Abd Wahab[d], Ezatul Emilia Binti Muhammad Arif[e]

[a]Department of Commerce and Accountancy, Faculty of Business and Finance, UniversitiTunku Abdul Rahman,(lazrina@utar.edu.my).

[b]Department of Commerce and Accountancy, Faculty of Business and Finance, UniversitiTunku Abdul Rahman,(norhusch@utar.edu.my).

[c]Department of Finance, Faculty of Business and Finance, UniversitiTunku Abdul Rahman, (nurulikma@utar.edu.my).

[d]Department of Finance, Faculty of Business and Finance, UniversitiTunku Abdul Rahman, (mahmud@utar.edu.my).

[e]Department of Commerce and Accountancy, Faculty of Business and Finance, UniversitiTunku Abdul Rahman,(ezatul@utar.edu.my).

Abstract

Euromonitor International (2014) has reported that retailing market has sustained its current value growth in 2013 compared to 2012. This effects has leads to the growth of internet penetration rate among consumers in Malaysia and it enhanced consumers' ability to buy products online which is enable consumers to access sites to purchase products both from domestic and global. Impulse buying behaviour contribute a major role for modern retailer, thus it is important to know what stimulate consumers to buy on impulse. Maynand and Ahmaddinejad (2011) stated that impulse buying behaviour has become one of the widespread and contagious phenomena. Hence a lack of financial literacy knowledge and poor financial attitude of buyers to navigate their financial decision making towards impulse buying tendency (Letkiewicz; Sohn, Joo, Grable, Lee, Kim, 2012) become debatable. Thus, this research focused on the respondent's demographic (gender, age, income level), financial literacy and its impact towards online impulse buying behaviour. This study aims to contribute comprehensive understanding on the significant of financial literacy towards respondent's online impulse behaviour according to demographic profile.

Keywords: Impulse buying, financial literacy, demographic.

35

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Critical Success Factors for Healthcare Providers:

An Exploratory Analysis

Flormando P. Baldovino

College of Business & Accountancy, MS Enverga University Foundation

Lucena City, Philippines, mandybaldovino@yahoo.com

Abstract

This study explored the critical success factors for healthcare providers to define a healthcare consumer preference construct. The quantitative method of research applying both exploratory and descriptive approaches were utilized in this study. Healthcare executives (n_1 = 69) of the five major hospitals in Lucena City, Philippines and household heads (n_2 = 396) of the ten clustered counties in the same city were identified as respondents using complete enumeration and cluster sampling, respectively. Descriptive results revealed that both groups of respondents have a mean age of 41. Most were female, married, and college degree holders. Using exploratory factor analysis, the 43 original critical success factors (CSFs) were reduced to 22 variables from the point of view healthcare executive respondents. From the point of view of healthcare consumers, 43 original critical success factors were reduced to 24 variables. The remaining CSFs were grouped into four components, namely; clinical services infrastructure, human resources infrastructure, systems and procedures infrastructure, and marketing infrastructure. In the final analysis, findings of the study suggest that healthcare providers should provide healthcare services, resources, facilities, and other infrastructures preferred and needed by the healthcare consumers themselves and not as perceived by the healthcare providers.

Key Words: healthcare services, consumer preference, critical success factors

The Problem: Rationale and Background

Background of the Study

Hospitals are very important institutions for the economic and social well-being of society (Whittington, 2008). Their curative and rehabilitative functions, no doubt, enable them to revitalize the citizenry to being productive members of society and for those individuals to enjoy the benefits that can be gained from being healthy and more so, being wealthy. The success of hospitals or healthcare providers in fulfilling their mission is important as this is highly dependent on the hospitals' managerial capability. An understanding of how hospitals are managed will therefore contribute immensely to future successes in hospital management and towards the enhancement of their roles in society. Likewise, hospitals are simultaneously perhaps the most intricate of business organizations and they exist in perhaps the most turbulent industry settings (Heine & Maddox, 2012). Hospitals or healthcare providers continuously deal with life or death situations and should look into "customer" needs from customers who sometimes are not directly paying for the services they receive. In many cases, the healthcare consumers are absolutely not aware of the costs incurred in healthcare related services, be it for prevention, treatment and/or rehabilitation. Healthcare managers and administrators often have little say in the major decisions made and the medical service providers rarely are even employees of the organization.

Hospitals, like most other establishments, do not operate in isolation. Various factors surrounding the hospital and even within the hospital affect its degree of success or failure in attaining its corporate

36

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

objectives. These factors include the nature of its resources (capital, human, technology, etc.), competition, markets (consumers), and government regulations and incentives (Drummond, Sculpher, & Torrance, 2005).

In Lucena City, the healthcare industry is perceived to be in the upswing as the volume of patient flow is positively correlated with the growth in the population (Siu-Long & Lu-Yao, 1999; United Nations Population Fund, 2003). Because of the "fast-food" lifestyle of the populace, more and more people are becoming much chronically ill (Bowman, Gortmaker, Ebelling et al., 2004). The demand for good healthcare provisions is always high, despite the fact of widespread poverty in the city and the province of Quezon. There are five major hospitals in Lucena City, Philippines (the capital city of Quezon province) and their performances in terms of work-volume indicators, specifically occupancy rate are as follows: Hospital D recorded an average occupancy rate from the year 2007 to 2011 of 100%, while Hospital B got 90%, Hospital A 78%, Hospital C 59%, and Hospital E 44% five-year average occupancy rates for the same period (see Appendix 1 – Table A). Based on the study, Hospitals D and B are the busiest players in the healthcare industry in Lucena City, while Hospitals E and C are at the bottom two. In terms of the second work-volume indicator which is the average inpatient admission per day, Hospital D with an average of 65 inpatient admissions daily ranked first among the five major hospitals in Lucena City. Hospitals B, A, C, and E ranked second to fifth with an average of 31, 19, 12, and 7 inpatient admission per day, respectively, for the same period (see Appendix 1 – Table B).

The average outpatient visits per day, which is the last measure of performance indicator in terms of work-volume, recorded 376 daily average visits in the outpatients from the year 2007 to 2011 for Hospital D and is the highest performing Lucena hospital among the five players in the industry. Hospitals B, A, C, and E ranked second to fifth with an average of 163, 74, 35, and 21 outpatients visits per day, respectively, for the same period (see Appendix 1 – Table C). Narrating the data relating to the performance indicators in terms of provision of quality healthcare, there is not much difference in the data among the five hospitals. This implies that the five major hospitals are at par in the performances in terms of quality indicators. Meanwhile, length of stay (LOS) which is an important performance indicator for costing and hospital management and a key measure of efficiency (Kulinskaya, 2005) is exhibited in Appendix 1 – Table D. The length of stay of the five major hospitals under study ranged from 2.5 days to 3 days. All the hospitals have acceptable performances in terms of this quality indicator from the year 2007-2011.

The experiences of the five major hospitals in Lucena City in terms of incidences of nosocomial infections, which is another measure of quality performance (see Appendix 1 – Table E), also revealed acceptable results. A nosocomial infection simply means hospital-acquired infection, an infection which development is favored by a hospital environment, such as one acquired by a patient during a hospital visit or one developing among hospital staff. Nosocomial infections are commonly transmitted when hospital officials become complacent and personnel do not practice correct hygiene regularly. Therefore, the relevant key performance indicators of the five major hospitals in Lucena City from 2007-2011 are occupancy rate, average inpatient admission per day, and average outpatient visits per day, which is generally defined as work-volume indicators. Hospitals E and C's performance on the occupancy rate, number of inpatient admissions and number of OPD visits were ranked fifth and fourth, respectively, among the five hospitals. This may be deduced as a poor level of performance. On the other hand, the performance indicators have revealed that there is not much difference on the quality of care delivered by the five hospitals. Although it could also be inferred that Hospital E and Hospital C ranked least because of their work-volume, specifically their occupancy rate, number of inpatient admission, and number OPD visits in 2007-2011. Based on these data, a case study was done by the researcher to draw a strategic management plan for Hospital E (Appendix 2). The study zeroed in on Hospital E since the researcher felt a greater challenge investigating the lowest performer among the five hospitals. It examined the nature and overall management processes and systems of Hospital E, specifically its external and internal environment, size and capability, and the role of management in its success or failure in terms of providing services of acceptable standards of quality healthcare (i.e. mortality rate, infection rate, length of stay) and in terms of work-volume (i.e., occupancy rate, inpatient, and outpatient visits).

Furthermore, the case study outlined what can be done by the stakeholders, particularly those who manage and run the hospital, to increase its work-volume and be at par with other major healthcare

37

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

players in the city of Lucena. The formulated Strategic Management Plan for Hospital E Hospital is detailed in Appendix 6.

However, to enhance the Strategic Management Plan recommended for Hospital E, there is a need to conduct a survey which aims to explore and discover the factors that influence a patient's choice of hospital. Employing exploratory factor analysis, the critical success factors (CSFs) for a hospital/healthcare business can be determined and as such shall become a basis for formulating a Healthcare Consumer Preference Model which is the main thrust of this study.

Statement of the Problem

The main objective of this research was to identify the different factors critical to the success of hospital operations and its long term existence by defining a healthcare consumer preference construct. For this purpose, the following specific research questions were addressed:

1. A. What is the demographic profile of healthcare executive respondents in terms of:
   - age, sex, civil status, work area/division, highest educational attainment
   B. What is the demographic profile of healthcare consumer respondents in terms of:
   - age, sex, civil status, occupation, highest educational attainment, household size, household income, household expenses, healthcare related expenses, house ownership, frequency of healthcare visit/year, reason/s for healthcare visit
2. What variables do healthcare executives perceive as factors influencing healthcare consumer's hospital of choice?
3. What variables do healthcare consumers perceive as factors influencing their hospital of choice?
4. Is there a significant difference between the perceptions of healthcare executives and consumers on the factors influencing healthcare consumers' hospital of choice?
5. What healthcare consumer preference model can be developed from the study?

Theoretical Framework

The value of satisfying consumers is evidently important in developing a strategic management plan for any business establishment, more so in the healthcare industry – where consumer's health and long term well-being is at stake. An investigation on the types of consumer expectations (factors or variables) that influence the healthcare consumers' hospital of choice is therefore necessary. It was anchored on the analysis of intended market needs and wants and delivery of the desired tastes or preferences more efficiently and effectively. This type of marketing philosophy is simple, but at its very core are the consumers and their satisfaction.

The marketing concept and philosophy states that an organization should endeavor to satisfy its customers' wants and needs while meeting corporate and organizational objectives (Jobber, 2007). This means simply, "the customer is king".

The implication of the marketing principle is very important for the stakeholders, particularly for the business owners and management. It is not something that a specialized department concerned about marketing administers, nor it is the sole domain of a particular department. Rather, it is adopted by the whole establishment. From the top management to the lowest levels and across all divisions of the business establishment, it is a philosophy or way of doing business. The consumers' needs, wants, and satisfaction should always be the priorities in the minds of every member of the organization.

In economics, the theory of consumer choice (Mankiw, 2011) explains that consumers have a plethora of wants and needs, which is no doubt correlated with the consumer's socio-demographic background and individual tastes, among others. This economic concept theorizes that consumers always make decisions through careful and rational processes that offer them the maximum benefit and/or satisfaction and that are in their best interest.

38

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

The underpinning basis of selling goods and services is, knowing how the consumers behave. This array of wants and needs (or preferences) is no doubt correlated with the consumer's socio-demographic background and individual tastes.

Conceptual Framework

A modified input-process-output flowchart illustrates the concepts considered in the study as well as their relationships. The first frame in the flowchart is the input, which is basically the variable or factors assessed in the study. Next in the flowchart is the process, which summarizes the statistical techniques used to analyze the data collected. The last frame shows the intended output of the study.

Meanwhile, the operational conduct of the study is explained using the flow chart. The first frame in the flowchart is the input, which is basically the research method used in the study. Next is the process, which is subdivided into literature review, data collection, statistical treatment, and results. Each frame in the second flow has its own output. Expected outputs are the third or last frame in the flowchart.

INPUT	PROCESS	OUTPUT
• Profile of healthcare executives and consumers in selected hospitals and households in Lucena City • Ratings of Variables influencing hospital choice of healthcare consumers	• Utilization of descriptive statistical tools • t-test • Exploratory factor analysis	• Ranking of variables influencing healthcare consumer hospital of choice • Differences on the perceptions of respondents

FEEDBACK

Figure 1. Conceptual paradigm of the study

Likewise, the variables or factors' degree of influence were examined by means of an exploratory factor analysis (EFA). Factor analysis is described as a generic name given to a class of multivariate statistical techniques which primary objective is to define the underlying construct in a given matrix (Hair, 1998; Fabrigar, 1999; DuPlussis, 2004; Costello, 2005). Evidently, factors analysis aims to model overlapping underlying dimensions in which individual variables or factors can be grouped.

39

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

Significance of the Study

The data that shall be gathered from this study would be beneficial to a number of sectors; i.e. government and private.

The Private Healthcare Industry.   The findings of this research may serve as a guide for planning when establishing businesses catering to the healthcare needs of consumers. Additionally, for existing healthcare facilities, results of this study could fall as basis for improvement and strategic management processes. Ultimately, private healthcare establishments could be made aware of the consumer's preferences and expectations, information vital to one's long term profit sustainability.

The Department of Health.   The results of this study could be referenced when governmental policies aimed towards the provision of acceptable healthcare services to the citizenry are being drafted.

The Private Healthcare Consumers. This study may be considered as a venue in voicing out their concerns, preferences and expectations from a private hospital/healthcare provider.

The Future Researchers.   This study would serve as a guide for future researchers who might be interested pursuing a study in line with the focus of this paper.
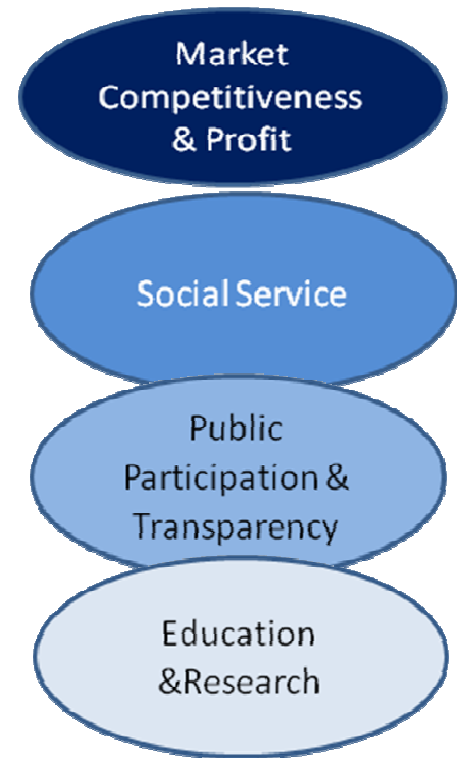
Scope and Limitations

This study dealt with the different healthcare services and available facilities which are identified as factors or variables that may contribute to the successful operations of hospitals.

Respondents of the study are limited to healthcare consumers of Lucena City who will be selected using probability sampling technique, and the executives of private/public hospitals in Lucena City.

Methodology

Research Design

This study used the quantitative method of research applying specifically both exploratory and descriptive approaches. Exploratory approach was used since the researcher has no prior knowledge on the subject at hand. According to the College of Medicine, University of New Jersey, U.S.A., exploratory design is the appropriate choice of research design when there is little or no previous studies ever made and knowledge is minimal in a certain field of study (http://www.umdnj.edu, n.d.).

Meanwhile, the descriptive approach was used to determine and describe the variables included in the study.

Research Locale

The healthcare industry in Lucena City is the empirical context of the study. A pilot study was conducted at a private higher education institution in Lucena City to establish the validity and reliability of

40

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

the research instrument. Respondents of this pilot study were not partakers to the main enumeration process.

Meanwhile, the survey proper took place in two major clusters. The first cluster was composed of the five major hospitals in Lucena City, namely Quezon Medical Center, Mount Carmel Hospital, Saint Anne General Hospital, MMG Hospital, and Lucena Doctors Hospital to gather responses from hospital executives. The second cluster was composed of the households of the ten clustered barangays in Lucena City. In the interpretation of data, names of the respondents and hospitals were coded for privacy and ethical reasons.

Population and Subjects of the Study

For the first major cluster (Table 1), the subjects were the executives of the five major hospitals. The executives, when and where appropriate, included the president, vice president, managing director, medical director, chief executive officer (CEO), chief operating officer (COO), chief financial officer(CFO), director of nursing (DON), and middle management staffs.

Table 1. Healthcare Executive Respondents from the Five Major Hospitals in Lucena City

Name of Hospital	Number of Healthcare Executive Respondents ($n_1 = 69$)
Hospital A	8
Hospital B	10
Hospital C	25
Hospital D	20
Hospital E	6
TOTAL	69

For the second major cluster (Table 2), the subjects were the head of the family of households from selected counties in Lucena City.

Table 2. *Healthcare Consumer Respondents from the Ten Selected Barangays in Lucena City*

Name of Barangay	Number of Households*	Number of Respondents – Household Head ($n_2 = 396$)
Barangay 1	552	9
Barangay 4	244	4
Barangay 5	586	10
Barangay 7	509	9
Barangay 8	882	15
Ibabang Iyam	4,518	77
Ibabang Dupay	5,960	101
Market View	2,309	39
Gulang Gulang	5,502	93
Mayao Crossing	2,304	39
TOTAL	23,366	396

(*Source: Philippine National Statistics Office – 2010 Data)

41

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Sampling Procedures

For the first major cluster, a complete list of executives including middle management staffs from the five major hospitals in Lucena City was secured. Complete enumeration or the population of this cluster was included in the study as respondents (N_1 = 69). Cluster sampling technique with random selection was used in the selection of counties in Lucena City, while systematic sampling was used in the selection of households. Three hundred ninety-six (396) household head respondents were determined using the Slovin's formula.

Research Instrument

The conceptualization of the research instrument was based on the hospital survey material developed by the Center for MEDICARE and MEDICAID in 2008 (http://www.cms.gov/site = patient%20satisfaction). Additionally, contents gathered from studies (Avcikurt, 2011; Williams et al., 1998; Bullen & Rockartt, 1986) having similar concepts and methodology were also referenced. The research adviser had likewise reviewed the instrument extensively. The first part of the questionnaire dealt with the socio-demographics of the respondents, namely age, gender, educational attainment, and occupation for the healthcare executives. For the healthcare consumers, the following were included: household size, household income, household expenditure, healthcare expenditure, savings, household ownership, rent per month (if applicable), number of hospital/doctor visits per year, and most common reason/illness for doctor visit. The second part dealt with the different factors or variables that influence consumer's choice of hospital.

To establish the validity and reliability of the research questionnaire, the instruments were tested and re-tested in a pilot study.

Data Gathering Procedures

Permission was sought from hospital authorities to conduct the administration of the survey. After getting the approval, the survey instruments were personally administered among the hospital executives. However, in some cases, trained enumerators did the survey.

Trained enumerators administered the survey among the selected household heads of the selected counties in Lucena City after getting approval from the respective barangay captains.

In all cases, enumerators stood by the respondents to assure 100% retrieval of questionnaires and clarify the intent of the survey material when and where needed.

Statistical Treatment of Data

The data gathered from this study were coded, tallied, tabulated, analyzed, and interpreted with the aid of some statistical tools. Percentage, mean, weighted mean, and standard deviation were employed to describe the attributes of some of the data gathered. Inferential statistics, particularly multivariate factor analysis and t-test of significant difference were used in the analysis of data (using SPSS).

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

Demographic Profile of Respondents

A. Healthcare Executives

Presented in the following tables are the results of data gathering procedures as to the healthcare executive respondents' demographic characteristics in terms of age, gender, marital status, work area/division, and educational attainment.

Table 3 *Demographic Profile of Healthcare Executive Respondents (N = 69)*

Profile	Details	Distribution
Age (Mean Age: 41.73 years)	20 – 29 years old 30 – 39 years old 40 – 49 years old 50 years old and above	12 respondents (17%) 27 respondents (39%) 13 respondents (19%) 17 respondents (25%)
Sex	Male Female	21 respondents (30%) 48 respondents (70%)
Civil Status	Single Married	14 respondents (20%) 55 respondents (80%)
Work area/division	Administration Nursing Medical/Clinical	16 respondents (23%) 43 respondents (62%) 10 respondents (15%)
Educational Attainment	Bachelor's degree Master's degree Doctorate degree Doctor of Medicine	35 respondents (51%) 12 respondents (17%) 3 respondents (4%) 19 respondents (28%)

Table 3 reveals the frequency and percentage distribution of the healthcare executive respondents in terms of their age characteristic. As can be seen from the table, the age bracket 30-39 years old got the highest count of 27 respondents or 39% while age bracket 20-29 years old got the least number of respondents amounting to 12 or 17%. The mean age of the respondents is 41.73 years, while the age's standard deviation is 10.102 years. This information suggests that respondents who belonged to the healthcare executive cluster are in their early 40's with a total spread of about 10 years.

From the same table, the frequency and percentage distribution of the healthcare executive respondents in terms of their gender is revealed. Female respondents were recorded to be a majority, with a total count of 48 respondents or 70%, while male respondents accounted to 21 counts or 30%. This information may be suggestive that females are a majority among the healthcare executives in Lucena City. Table 3 also displays the frequency and percentage distribution of the healthcare executive respondents in terms of marital status. Married respondents were an overwhelming majority, with a total of 55 respondents or 80%, while single respondents accounted to 14 or 20%.

In the same manner, Table 3 details the frequency and percentage distribution of the healthcare executive respondents in terms of their job responsibilities or designation. Majority of the respondents belonged to the nursing executive/officer category which accounted to 43 respondents or 62%, while respondents belonging to the medical executive and administration executives recorded 10 (14%) and 16 (23%) respondents, respectively. This information suggests that the bulk of hospital executives were from the nursing services. Likewise, the frequency and percentage distribution of the healthcare executive respondents in terms of their highest educational attainment is also exhibited in the same table. Majority of the respondents in cluster 1 have finished a baccalaureate degree with 35 or 51% of the respondents. There were 10 (14%) doctors of medicine, 5 (7%) doctorate, and 19 (28%) master's degree holders. This data reestablished the vital role played by education to ones' professional growth.

B. Healthcare Consumers

Presented in the following tables are the results of data gathering procedures as to the healthcare consumer respondents' demographic characteristics in terms of age,   sex, civil status, occupation, highest educational attainment, household size, household income, household expenses, healthcare related expenses, house ownership, frequency of healthcare visit/year, and reason/s for healthcare visit.

Table 4. *Demographic Profile of Healthcare Executive Respondents (n = 396)*

Profile	Details	Distribution
Age (Mean Age: 41.23 years)	25 - 34 years old	102 respondents (26%)
	35 – 44 years old	147 respondents (37%)
	45 – 54 years old	117 respondents (29%)
	55 years old and above	30 respondents (8%)
Sex	Male	98 respondents (25%)
	Female	298 respondents (75%)
Civil Status	Married	396 respondents (100%)
Occupation	Employee	170 respondents (43%)
	Businessman/Self-employed	184 respondents (46%)
	Farmer/Fisherman	12 respondents (3%)
	Not employed	30 respondents (8%)
Educational Attainment	Elementary graduate/level	2 respondents (< 1%)
	High school graduate/level	5 respondents (1%)
	College graduate/level	309 respondents (78%)
	Vocational graduate	11 respondents (3%)
	Graduate level	69 respondents (17%)
Household Size	4 & below members	132 respondents (33%)
	5 – 6 members	195 respondents (49%)
	7 – 8 members	52 respondents (13%)
	9 – 10 members	2 respondents (< 1%)
	11 & above members	15 respondents (4%)
Gross Household Income/month	5,000 – 9,999 pesos	16 respondents (4%)
	10,000 – 14,999 pesos	20 respondents (5%)
	15,000 – 19,999 pesos	156 respondents (39%)
	20,000 pesos & above	204 respondents (52%)
Household Expenditure per month	2,000 pesos & below	12 respondents (3%)
	2,000 – 4,000 pesos	3 respondents (< 1%)
	4,001 – 6,000 pesos	17 respondents (4%)
	6,001 – 8,000 pesos	46 respondents (12%)
	8,001 – 10,000 pesos	142 respondents (36%)
	10,001 – 12,000 pesos	39 respondents (10%)
	12,001 pesos & above	137 respondents (35%)
Healthcare Related Expenses per month	Below 200 pesos	28 respondents (7%)
	200 – 399 pesos	193 respondents (49%)
	400 – 599 pesos	82 respondents (21%)
	600 – 799 pesos	28 respondents (7%)
	800 – 999 pesos	4 respondents (1%)
	1,000 pesos & above	61 respondents (15%)
House Ownership	House Owned	144 respondents (36%)
	House Rented	252 respondents (64%)
Frequency of Healthcare Visits per year	0 visit	10 respondents (3%)
	1 visit	158 respondents (40%)
	2 visits	16 respondents (4%)
	3 visits	122 respondents (30%)
	4 visits & above	90 respondents (23%)
Reason for Healthcare Visit	Confinement	8 respondents (2%)
	Consultation	351 respondents (89%)
	Others (X-Ray, Laboratory, etc.)	37 respondents (9%)

Table 4 reveals the frequency and percentage distribution of the healthcare consumer respondents in terms of their age profile. As can be seen from the table, the age bracket 35-44 years old got the highest count of 147 respondents or 37%, while age bracket 55 year old and above got the least number of respondents with 30 or 8%.   The mean age of the respondents is 41.23 years, while the age's standard deviation is 8.6 years. This suggests that the respondents who belonged to the healthcare consumers cluster were in their early 40's with a total spread of about 9 years. Likewise, Table 4 shows the frequency and percentage distribution of the healthcare consumer respondents in terms of their gender. Female respondents were recorded to be a majority, with a total of 298 respondents or 75%, while male respondents got 98 or 25%. This indicates that females were a majority among the household heads in Lucena City.

The same table also displays the frequency and percentage distribution of the healthcare consumer respondents in terms of marital status, and as can be seen, all respondents in this cluster were married. The frequency distribution of the healthcare consumer respondents in terms of their occupation can also be seen in Table 4 in which most of the respondents were either businessman/self-employed or employee, with 184 (46%) and 170 (43%) respondents, respectively. There were 30 (8%) respondents who were unemployed and 12 (3%) farmers/fishermen. This implies that the bulk of healthcare consumers (92%) play a positive role in the economic activity of Lucena City.

The data gathered in terms of household size of healthcare consumer respondents is also shown in Table 4. As can be gleaned, 195 (49%) respondents recorded a household size of 5-6 members. One hundred thirty-two (33%) respondents have a household size of 4 members or below, while 2 (<1%) respondents have a household size of 9-10 members. Furthermore, the educational attainment of healthcare consumer respondents is also exhibited in the table. Majority of the respondents in the second cluster have attained college degree/level with 309 or 78% of the respondents. There were 69 (17%) respondents who have attained graduate degree/level, while 2 (< 1%) respondents were elementary graduate/level. Such findings reinforce the importance once again of education.

Majority of the healthcare consumer respondents have a monthly household income of 20,000 pesos and above, with 204 (52%) of the respondents (Table 4). There were 156 (39%) respondents who have a household income of 15,000-19,999 pesos, while 16 (4%) earn 5,000-9,999 pesos.

The average monthly household income of the 396 healthcare consumer (households) respondents in Lucena City is 16,888 pesos, which is better compared to the national average household income of about 11,535 pesos (Source: NSCB 2009 Report).

In terms of monthly household expenditure of healthcare consumer respondents, expenditure bracket 6,001-8,000 pesos recorded the highest count of 142 (36%), followed by expenditure bracket 12,001 pesos above with 137 (35%). The lowest count is recorded for 2,001–4,000 pesos expenditure bracket with three (< 1%) respondents. The average monthly household expenditures of the three hundred ninety-six healthcare consumers (households) respondents in Lucena City is 12,021 pesos, which is again higher compared to the national average household expenditures of about 9,166 pesos (Source: NSCB 2009 Report). Analyzing further the data collected on income and expenditures, "savings" then may be determined by using the classical formula: Income – Expenditure = Savings.

Therefore, a monthly saving of about 4,667 pesos is computed among the 396 respondents in Lucena City, which is higher compared to the national average of 2,359 pesos. Furthermore, in terms of the healthcare consumer respondents' average monthly healthcare expenditure, results reveal that most of the respondents (193 or 49%) incur between 200-399 pesos. It could also be deduced that the households surveyed spend about 394 pesos expenses for healthcare on the average or a total of 155,900 pesos monthly healthcare expenses.   In terms of house ownership of respondents, majority of them were tenants with a count of 252 (64%), while 144 (36%) respondents were owners of their own households. The lowest rental fee recorded is 700 pesos per month for a household located at Barangay Mayao Crossing, while the highest rental is 6,000 pesos for a household at Barangay 7 (Poblacion). Healthcare consumer respondents were also asked on the average about how many occasions they have visited a healthcare provider/hospital in a year. Results reveal that 158 (40%) and 122 (31%) have an average doctor/provider visit of 1 occasion and 3 occasions, respectively. There were 10 (3%) respondents who answered "no visit" at all. These visits to a healthcare provider/hospital were brought about by reasons of consultation, inpatient confinement, and diagnostic services, medications/drugs, and ER care. Consultation got the highest tally of 351 (89%), while inpatient confinement tallied 8 (2%). The other reasons got a tally of 37 (9%) respondents.

45

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Critical Success Factors as Perceived by Healthcare Executives

Table 5. *Top Ten Rated Critical Success Factors for Healthcare Executive Respondents*

No.	Critical Success Factors	Minimum	Maximum	Weighted Mean	Descriptive Rating
1	Qualification of Doctors	4	5	4.9	Strongly Important
8	Doctors explaining things related to course of treatment, etc.	4	5	4.88	Strongly Important
19	Availability of basic diagnostic services; e.g. radiology, etc.	4	5	4.87	Strongly Important
2	Nurses explaining things related to course of treatment, etc.	4	5	4.84	Strongly Important
15	Easy accessibility of attending physician	4	5	4.82	Strongly Important
18	Doctors who listens	4	5	4.79	Strongly Important
34	Adherence to protecting patient's privacy and confidentiality	4	5	4.79	Strongly Important
6	Hospital having latest equipment	3	5	4.78	Strongly Important
16	Nurses who listens	4	5	4.73	Strongly Important
22	Availability of operating room	4	5	4.73	Strongly Important

*n_1 - This is the number of cases used in the factor analysis = 69.; **Minimum/Maximum** – This is either the lowest or highest score received by a variable.*
***Weighted Mean (WM)** - These are the means of the variables used in the factor analysis.*
***Standard Deviation (SD)** - These are the standard deviations of the variables used in the factor analysis.*
***Note**: Scores are from a 5-point scale; i.e. 1 (Not Important) to 5 (Strongly Important).*

Table 5 exhibits the scores given by the sixty-nine healthcare executive respondents on the forty-three critical success factors (CSF) or variables included in the exploration. The score ranges from a Likert scale of 1 (not important) to 5 (strongly important). The table details the minimum and maximum scores recorded for each CSF. Weighted mean, and standard deviation were also detailed in the table.

The weighted means are arranged from highest to lowest, showing which CSF received the greatest importance that may influence patient's hospital of choice from the point of view healthcare executives. As can be seen from the table, doctor's qualifications was ranked first (WM = 4.9, strongly important; SD = 0.308) by the healthcare executive respondents as variable influencing patient's hospital of choice. This is followed by doctors explaining things related to course of treatment, prognosis, care, etc. (WM = 4.88, strongly important; SD = 0.327). Ranked last is the facility being attached to a university or school (WM = 3.36, undecided; SD = 0.811).   Meanwhile, the forty-three variables included in the study were subjected to an exploratory factor analysis using common factor model. The Kaiser-Meyer-Olkin (KMO) that measures the sampling adequacy was 0.678, which can be assumed to be adequate in terms of the number of respondents since it is more than 0.6 and can yield a clear, recognizable factor model (Arrindell, 1985). On the other hand, Bartlett's test of sphericity gave an approximate chi-square of 2954 (df = 42; sig = 0.000) which supports the use of factor analysis for the data gathered (Snedecor, 1989). The results are shown in Table 6.

Table 6. *Results of Exploratory Factor Analysis on the Critical Success Factors (CSFs) for a Healthcare Provider as perceived by Healthcare Executives*

Critical Success Factors	Component Factor Loadings			
	F1	F2	F3	F4
F1: CLINICAL SERVICES INFRASTRUCTURE				
Availability of basic diagnostic services; e.g. radiology, laboratory and pathology	.951			
Availability of ER facility	.917			
Availability of blood bank	.837			
Customer service skills of hospital staff	.906			.635
Internet accessibility; i.e. with website	.780			
CSR activities; e.g. medical mission, feeding/relief assistance, free clinic, etc.	.708	.566		
Hospital having latest equipment	.856			
Security / Secured premises	.807		.527	
Hospital classification; i.e. Level 1, Level 2, or Level 3 (DOH)	.792			
Parking facilities	.870			
F2: HUMAN RESOURCES INFRASTRUCTURE				
Qualification of doctors		.922		
Doctors explaining things related to course of treatment, prognosis, care, etc.		.903		

46

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Nurses who listens		.873		
Patient, being part of care decision-making processes		.899		.539
Qualification of nurses		.797		
F3: SYSTEMS AND PROCEDURE INFRASTRUCTURE				
Admission procedure ease		.561	.801	
Hospital charges / fees			.814	
Hotel-like hospital environment	.571		.824	
Facility being sectarian			.838	
Facility size; in terms of number of inpatient beds and number of clinical services provided	.553		.763	
F4: MARKETING INFRASTRUCTURE				
Referral by friends / other patients				.795
Advertisement and promotion				.794
Eigenvalues	10.836	9.226	5.944	3.995
Percentage of variance explained	25.200	21.457	13.824	9.290

Total variance explained = 69.771%; Kaiser-Meyer-Olkin measure of sampling adequacy = .678; Bartlett's test of sphericity: approx..chi-square = 2,954, df = 42, Sig. = .000	**Note:** *Exploration method: dimension reduction using factor analysis. Rotation method: Varimax with Kaiser normalization*

A four-component solution was achieved after one rotation loading (Table 6) using Varimax method which intimated logical grouping of the variables or factors. Varimax rotation tries to maximize the variance of each of the factors, so the total amount of variance accounted for is redistributed over the four identified factors (Bartholomew, 2011).

The total variance explained is 69.771%, from the twenty-two remaining critical success factors. Those included in the original CFSs not contributing to the interpretability of the pattern (twenty-one items) have been removed.

In this analysis, variables with coefficients of greater than 0.700 after rotation were used in the factor description (Bartholomew, 2011). The reliability of the items or values was assessed through Cronbach's alpha. Based on the computations, all variables had an alpha coefficient of 0.943, which indicate a strong item covariance supporting a reliable internal consistency (Avcikurt, 2011).

Factor 1 (F1) which is termed as 'clinical services infrastructure' explains 25.2 percent of variance. It consists of 10 variables: i.e. availability of basic diagnostic services (e.g. Radiology, Laboratory and Pathology), availability of ER facility, availability of blood bank, customer service skills of hospital staff, internet accessibility, (i.e. with website), CSR activities (e.g. medical mission, feeding/relief assistance, free clinic, etc.), hospital having latest equipment, security/secured premises, hospital classification, i.e. Level 1, Level 2, or Level 3 (DOH); and parking facilities. These results conform with the previous studies made by Schwartz (1986) and Singh (2011), who found that a high percentage of patients are influenced by the array of available healthcare services from providers. Studies by Laamanen (2010), Geraedts et al. (2007) and Roh (2008) made similar findings in terms of clinical services infrastructure.

Factor 2 (F2) which is termed as 'human resource infrastructure' explains 21.457 percent of variance. It consists of 5 variables: qualification of doctors, doctors explaining things related to course of treatment, prognosis, care, etc., nurses who listens, patient being part of care decision-making processes, and qualification of nurses. Such findings agree with the results of the study made by Fotaki et al. (2008), Hirth et al. (2003), and Guile et al. (2007), where it was suggested that the quality and quantity of human resources affect patient's choice of healthcare providers.

Factor 3 (F3) which is termed as 'systems and procedures infrastructure' explains 13.824 percent of variance. It consists of 5 variables: admission procedure ease, hospital charges and fees, hotel-like hospital environment, facility being sectarian, and size of facility. These conform with the study made by Lux et al. (2011) and Kiiskinen (2010), but in contrast with the findings of Combier et al. (2004) who found that women do not take costs into the equation when selecting a healthcare facility because they do want to provide the best to her unborn child.

Factor 4 (F4) which is termed as 'marketing infrastructure' explains 9.290 percent of variance. It consists of 2 variables: referral by friends/other patients and advertisement and promotion. Findings from studies made by Peters et al. (2007) and Fagerlin et al. (2005) suggest that patient decision making on their choice of hospital provider often rely on non-formal, qualitative information from friends, relatives, and acquaintances.

Critical Success Factors as Perceived by Healthcare Consumers

Table 7. *Top Ten Rated Critical Success Factors for Healthcare Consumer Respondents*

No.	Critical Success Factors	Minimum	Maximum	Weighted Mean	Descriptive Rating
1	Qualification of doctors	4	5	4.83	Strongly Important
28	Security / Secured premises	4	5	4.81	Strongly Important
20	Availability of ER facility	4	5	4.81	Strongly Important
3	Accessibility by means of public transportation years old	4	5	4.81	Strongly Important
19	Availability of basic diagnostic services; e.g. radiology, laboratory	3	5	4.81	Strongly Important
6	Hospital having latest equipment	4	5	4.80	Strongly Important
22	Availability of operating room	4	5	4.79	Strongly Important
5	Hospital charges / fees	4	5	4.79	Strongly Important
21	Availability of delivery room facility	3	5	4.65	Strongly Important
13	Food quality (served by the hospital)	4	5	4.58	Strongly Important

*n_2 - This is the number of cases used in the factor analysis = 396.; **Minimum/Maximum** – This is either the lowest or highest score received by a variable.*
***Weighted Mean (WM)** - These are the means of the variables used in the factor analysis.*
***Standard Deviation (SD)** - These are the standard deviations of the variables used in the factor analysis.*
***Note**: Scores are from a 5-point Likert scale; i.e. 1 (Not Important) to 5 (Strongly Important).*

Table 7 exhibits the scores given by the three hundred ninety-six healthcare consumer respondents on the forty-three critical success factors (CSF) or variables included in the exploration. The score ranges from a Likert scale of 1 (not important) to 5 (strongly important). The table details the minimum and maximum scores recorded for each CSF. Weighted mean, and standard deviation were also detailed on the table. Furthermore, the weighted means are arranged from highest to lowest, showing which CSF received the greatest importance that may influence patient's hospital of choice from the point of view healthcare consumers. As can be gleaned from the table, doctor's qualifications was ranked first (WM = 4.83, strongly important; SD = 0.500) by the healthcare consumer respondents as variable influencing their hospital of choice. This is followed by secured premises/ security (WM = 4.81, strongly important; SD = 0.427). Ranked last is the facility being attached to a university or school (WM = 2.69, undecided; SD = 0.647).

The forty-three variables included in the study were subjected to an exploratory factor analysis using common factor model. The Kaiser-Meyer-Olkin (KMO) which measures the sampling adequacy was 0.725, and can be assumed to be adequate in terms of the number of respondents since it is more than 0.6 and can yield a clear, recognizable factor model (Arrindell & van der Ende, 1985). Meanwhile, Bartlett's test of sphericity gave an approximate chi-square of 438 (df = 42; sig = 0.000) which supports the use of factor analysis for the data gathered (Snedecor & Cochran, 1989). The results are shown in Table 8.

Table 8. *Results of Exploratory Factor Analysis on the Critical Success Factors (CSFs) for a Healthcare Provider as perceived by Healthcare Consumers*

Critical Success Factors	Component Factor Loadings			
	1	2	3	4
F1: CLINICAL SERVICES INFRASTRUCTURE				
Hospital having latest equipment	.962			
Availability of ER facility	.916			
Availability of Operating Room	.901			
Availability of basic diagnostic services; e.g. Radiology, Laboratory and Pathology	.864			
Availability of Delivery Room facility	.650			
Availability of Blood Bank	.749			
Availability of "special area" for religious worship	.704			
Inpatient beds comfort	.785			
Food quality (served by the hospital)	.881		.633	
Facility size; in terms of number of inpatient beds and number of clinical services provided	.823			
Air-conditioning and ventilation	.891			
F2: HUMAN RESOURCES INFRASTRUCTURE				
Easy accessibility of Attending Physician		.959		

48

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

Customer service skills of hospital staff		.939		
Doctors explaining things related to course of treatment, care, etc.		.840		
Qualification of Doctors		.801		
Qualification of Nurses		.823		
F3: SYSTEMS AND PROCEDURE INFRASTRUCTURE				
Accessibility; by means of public transportation			.962	
Security / Secured premises			.837	
You as a patient, being part of the treatment decision-making processes			.798	
Parking facilities			.716	
Adherence to protecting patient privacy and confidentiality			.712	
Accreditation; DOH, PhilHealth, JCIA, ISO, etc.			.712	
F4: MARKETING INFRASTRUCTURE				
Hospital charges / fees				.926
Referral by friends / other patients		.647		.758
Eigenvalues	13.770	9.545	7.054	6.637
Percentage of variance explained	32.024	22.198	16.404	15.436

Total variance explained: 86.062% Kaiser-Meyer-Olkin measure of sampling adequacy: .725 Bartlett's test of sphericity: approximate chi-square: 438, df = 42, Sig. = .000	***Note:*** *Exploration method: dimension reduction using factor analysis.* *Rotation method: Varimax with Kaiser normalization*

A four-component solution was achieved after one rotation loading (Table 8) using Varimax method which intimated logical grouping of the variables or factors. As has been said previously, Varimax rotation attempts to maximize the variance of each of the factors, so the total amount of variance accounted for is redistributed over the four identified factors (Bartholomew, 2011).

The total variance explained is 86.062%, taken from the remaining twenty-four critical success factors. Those included in the original critical factors not contributing to the interpretability of the pattern (nineteen items) have been removed.   In this analysis, variables with coefficients of greater than 0.700 after rotation were used in the factor description (Bartholomew, 2011). The reliability of the items or values were assessed through Cronbach's alpha. All variables had an alpha coefficient of 0.942, which indicate a strong item covariance supporting a reliable internal consistency (Avcikurt, 2011).

Factor 1 (F1) which is termed as 'clinical services infrastructure' explains 32.024 percent of variance. It consists of 11 variables: hospital having the latest equipment, availability of ER facility, availability of operating room, availability of basic diagnostic services, availability of delivery room, availability of blood bank, availability of special area for religious worship, inpatient beds comfort, food quality served by the hospital, facility size in terms of bed capacity and number of clinical services provided, and air-conditioning and ventilation. Similar results were established in studies of Laamanen (2010), Geraedts et al. (2007), and Roh et al. (2008) which suggested that a high number of healthcare consumers choice of providers are influenced by the size of the facility and availability of different clinical and diagnostic services under roof.

Factor 2 (F2) which is termed as 'human resource infrastructure' explains 22.198 percent of variance. It consists of 5 variables: easy accessibility of doctors, customer service skills of hospital staff, doctors explaining things related to treatment, prognosis, care, etc., qualifications of doctors, and qualifications of nurses. These findings conform with the results of the study made by Fotaki et al. (2008), Hirth et al. (2003), and Guile et al. (2007), where it was suggested that the quality and quantity of human resources affect patient's choice of healthcare providers.

Factor 3 (F3) which is termed as 'systems and procedures infrastructure' explains 16.404 percent of variance. It consists of 5 variables: accessibility by means of public transportation, security/secured premises, patient being part of the treatment decision-making processes, parking facilities, adherence to protecting patient privacy and confidentiality, and accreditation with DOH, PhilHealth, JCIA, etc. A number of literatures have suggested similar findings that, in general, healthcare consumers do not prefer hospitals located afar and that they are more inclined to choosing a hospital that is nearby (Orr et al., 1998; Tai et al., 2004; Newton et al., 2007). Another vital concern is that consumers choose a hospital that is accessible by their own transport or public transport (Combier et al., 2004; Haynes et al., 2003; Safran, 2001).

Factor 4 (F4) which is termed as 'marketing infrastructure' explains15.436 percent of variance. It consists of 2 variables: hospital charges and fees and referral by friends/other patients. Findings from studies made by Peters (2007) and Fagerlin et al. (2005) suggest that patient decision making on their

49

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

choice of hospital provider often rely on non-formal, qualitative information from friends, relatives, and acquaintances. An empirical research about the association of cost as a variable influencing patient choice of hospital (Kiiskinen, 2010) indicated that patients do care for costs into the equation when choosing a dental healthcare provider, which is similar to the findings of this study.

Testing of Significant Difference Between Responses

One of the objectives of this study was to determine if there is significant difference between the perception of Cluster 1 and Cluster 2 respondents on the critical success factors. All the following tests of hypotheses used t-test for two independent samples.

Tit was determined that there is a significant difference between the perceptions of the two clustered respondents in terms of the 35 critical factors or variables that may influence patient's hospital of choice.

On the other hand, there is no significant difference between their perceptions on the 8 critical factors which may influence patient's hospital or healthcare provider of choice.

Factors or variables that have been rated differently by the healthcare executives and consumers are: qualification of doctor, nurses explaining things related to course of treatment, accessibility of the facility, admission procedure ease, parking facilities, doctors explaining things related to course of treatment, referral by friends, advertisement and promotion, hotel-like environment, air-conditioning and ventilation, discharge procedure ease, easy accessibility of attending physician, nurses who listens, doctors who listen, availability of ER facility, customer service skills of hospital staff, convenient waiting times, effective appointment system, long visiting hours, security/secured premises, hospital classification, internet accessibility, CSR activities, accreditation, qualification of nurses, adherence to protecting patient privacy/ confidentiality, availability of social services facility, ease in all types of administrative procedures, inpatient beds comfort, organizational management structure, accessibility of nurses, availability of special area for religious worship, facility being sectarian, facility being attached to a university/school, and facility size (in terms of bed-capacity, clinical services, number of staffs, etc.).

Meanwhile, factors or variables that have been rated similarly by the healthcare executives and consumers are: hospital charges/fees, hospital having latest equipment, quality of food served by the hospital, patient being part of the treatment process, availability of diagnostic services (i.e. radiology, laboratory, and pathology), availability of delivery room facility, availability of operating room facility, and availability of blood bank.

Further analysis on the test of difference suggests that there are a great number of factors that have been rated or given weight differently by healthcare consumers from that of the rates or weights given by healthcare executives.

Summary of Findings

The respondents (healthcare executives) got a mean age 41.73 years old and were mostly 30 to 39 years old (39%) and female executives (70%). Eighty percent of them were married, with at least baccalaureate degree, and in the nursing profession (62%).

The respondents (healthcare consumers) had a mean age of 41.23 and were mostly married women (75%) and college graduate/level (78%). Monthly average household income was P16,888.00, while the monthly average household expenditure was P12,021.00; of which P394.00 goes to healthcare related expenses (or a total of P231,274,848.00 annually). Majority of them were residential tenants (64%). They have at least one visit to a healthcare provider/hospital per year for consultation.

A total of 22 out of the original 43 variables were defined as a healthcare consumer preference construct from the point of view of healthcare executives. They were: availability of basic diagnostic services (e.g. radiology, laboratory, and pathology), availability of ER facility, availability of blood bank, customer service skills of hospital staff, Internet accessibility (i.e. with website), CSR activities (e.g. medical mission, feeding/relief assistance, free clinic, etc.), hospital having latest equipment, security/ secured premises, hospital classification (i.e. DOH's Level 1, Level 2, or Level 3), parking facilities, qualification of Doctors, doctors explaining things related to course of treatment/prognosis/care, nurses who listens, patients being part of care decision-making processes, qualification of nurses, admission procedure ease, hospital charges/ fees, hotel-like hospital environment, facility being sectarian, facility

50

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

size (i.e. number of inpatient beds and number of clinical services), referral by friends/other patients, and advertisement and promotion.

A total of 24 out of the original 43 variables were identified as healthcare consumer preference construct from the point of view of healthcare consumers or patients themselves. They were: hospital having latest equipment, availability of ER facility, availability of operating room, availability of basic diagnostic services (e.g. radiology, laboratory, and pathology), availability of delivery room facility, availability of blood bank, availability of special area for religious worship, inpatient beds comfort, food quality (served by the hospital), facility size (i.e. number of inpatient beds and number of clinical services), air-conditioning and ventilation, customer service skills of hospital staff, easy accessibility of attending physician, doctors explaining things related to course of treatment/care, qualification of doctors, qualification of nurses, accessibility by means of public transportation, security/secured premises, patient being part of the treatment decision-making processes, parking facilities, adherence to protecting patient privacy and confidentiality, accreditation (e.g. DOH, PhilHealth, JCIA, etc.), hospital charges/ fees, and referral by friends/other patients.

There were 35 items rated differently by healthcare executives and consumer respondents as factors influencing patient's hospital of choice, while 8 factors have been tested with no significant difference, at 0.05 level of confidence.

The responses on the great number of factors that have been tested to have significant difference imply that a consumer preference survey (or consumer research) is an indispensible tool in arriving at a valid assessment of the wants and needs of the target market.

Conclusions

Majority of respondents in both clusters were females who were either employed or self-employed, and at their early 40s, an age characterized as experienced and mature. From the original 43 variables, there are only 22 variables which were considered by healthcare executive respondents as critical success factors for a healthcare provider. They are: availability of basic diagnostic services (e.g. radiology, laboratory, and pathology), availability of ER facility, availability of blood bank, customer service skills of hospital staff, Internet accessibility (i.e. with website), CSR activities (e.g. medical mission, feeding/relief assistance, free clinic, etc.), hospital having latest equipment, security/secured premises, hospital classification (i.e. DOH's Level 1, Level 2, or Level 3), parking facilities, qualification of doctors, doctors explaining things related to course of treatment/prognosis/care, nurses who listens, patients being part of care decision-making processes, qualification of nurses, admission procedure ease, hospital charges/fees, hotel-like hospital environment, facility being sectarian, facility size (i.e. number of inpatient beds and number of clinical services), referral by friends/other patients, and advertisement and promotion. From the original 43 variables, there are only 24 variables which were considered by healthcare consumers as critical success factors for a healthcare provider. They are: hospital having latest equipment, availability of ER facility, availability of operating room, availability of basic diagnostic services (e.g. radiology, laboratory, and pathology), availability of delivery room facility, availability of blood bank, availability of special area for religious worship, inpatient beds comfort, food quality (served by the hospital), facility size (i.e. number of inpatient beds and number of clinical services), air-conditioning and ventilation, customer service skills of hospital staff, easy accessibility of attending physician, doctors explaining things related to course of treatment/care, qualification of doctors, qualification of nurses, accessibility by means of public transportation, security/ secured premises, patient being part of the treatment decision-making processes, parking facilities, adherence to protecting patient privacy and confidentiality, accreditation (e.g. DOH, PhilHealth, JCIA, etc.), hospital charges/fees, and referral by friends/other patients. The healthcare executives and consumers had different perceptions on a large number of variables as critical success factors for a healthcare provider. A total of 35 variables out of the 43 variables were rated differently by the healthcare executives and consumers. They are: qualification of doctor, nurses explaining things related to course of treatment, accessibility of the facility, admission procedure ease, parking facilities, doctors explaining thing related to course of treatment, referral by friends, advertisement and promotion, hotel-like environment, air-conditioning and ventilation, discharge procedure ease, easy accessibility of attending physician, nurses who listens, doctors who listens, availability of ER facility, customer service skills of hospital staff, convenient waiting times, effective appointment system, long visiting hours, security/secured premises, hospital classification, internet

accessibility, CSR activities, accreditation, qualification of nurses, adherence to protecting patient privacy/confidentiality, availability of social services facility, ease in all types of administrative procedures, inpatient beds comfort, organizational management structure, accessibility of nurses, availability of special area for religious worship, facility being sectarian, facility being attached to a university/school, and facility size (in terms of bed-capacity, clinical services, number of staffs, etc.).

A four-factor solution was derived after exploratory factor analysis which outlined a logical compartmentalizing of CSFs. They are: Clinical Services Infrastructure (CSI), Human Resources Infrastructure (HRI), Systems and Procedures Infrastructure (SPI), and Marketing Infrastructure (MKI); defining a healthcare consumer preference model of:

$$CSF = CSI_i + HRI_i + SPI_i + MKI_i + \epsilon_i$$

Recommendations

Healthcare providers should target the women healthcare consumers as audience for any future marketing strategies as they are the dominant market segment when it comes to household healthcare decisions. The 22 variables found to be critical success factors by healthcare executives could be used as guidelines in their strategic management activities, while the 24 variables found to be critical success factors by healthcare consumers could be integrated in every strategic management activities of healthcare providers. Healthcare providers are encouraged to provide healthcare services, resources, facilities and other infrastructures preferred and needed by the healthcare consumer themselves, and not as perceived by the healthcare providers. They include the following: latest medical and hospital equipment, availability of ER/ OR/DR/diagnostics facilities, special area for religious worship, comfortable inpatient beds, quality food, adequate air-conditioning and ventilation, good customer service skills, easy accessibility, doctors who talks and listens to patients, qualified doctors/nurses, secured premises, parking facilities, protection of patient privacy and confidentiality, and affordable hospital charges/fees.

Existing healthcare providers, including that of the public and private sector, are encouraged to align their current and/or future strategic management and business plan with the findings of this research, that is by concentrating on the four components of identified consumer preference model; i.e. Clinical Services Infrastructure (CSI), Human Resources Infrastructure (HRI), Systems and Procedures Infrastructure (SPI), and Marketing Infrastructure (MKI).

Other interested researchers may use the data gathered in this study to include confirmatory factor analysis. A correlation analysis between the demographic variables and the critical success factors, and F-test to test difference in responses of respondents when grouped by their demographic profile can also be performed. A similar study using another set of respondents from another urban locality could also be done.

References

American College of Heathcare Executives. (2008) *Top issues confronting hospitals.* Retrieved from http://www.ache.org/pubs/research/ceoissues.cfm

Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology, 8,* 19–32.

Cheraghi-Sohi, S., Hole, A.R., & Mead, N. et al. (2008). What price patient-centeredness? A stated preference discrete choice experiment to identify patient priorities for primary care consultations. Mimeo, National Primary Care Research and Development Center, University of Machester, U.K.

Chevalier, J., & Mayzlin, D. (2006). The effect of word-of-mouth on sales. *Journal of Marketing Research*, *43*(3): 345-54.

Combier, E., Zeitlin, J., deCourcel, N. et al. (2004). Choosing where to deliver: Decision criteria among women with low risk pregnancies in France. *Social Science & Medicine, 58*(11): 2279-2289.

Fasolo, B., Reutskaja, E., Dixon, A., & Boyce T. (2010). Helping patients choose: How to improve the design of comparative scorecards of hospital quality. *Patient Educational Counseling, 78,* 344–349.

Jobber, D. (2007). *Principles and practice of marketing.* USA: McGraw-Hill.

Kiiskinen, U. et al. (2010). Think twice before your look? Modeling the choice of public vs private dentist in a choice experiment. *Health Economics*, *19*, 670-682.

52

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Kolstad, J., & Chernew, M. (2009). Quality and consumer decision making in the market for health insurance and health care services. *Med Care Res Rev.*, *66*, 28S–52S.

Kulinskaya, E. (2005). Length of stay as a performance indicator: Robust statistical methodology. *IMA Journal of Management Mathematics, 16*(4).

Landro, L. (2004, January). Consumers need health-care data*. Wall Street Journal*, 34.

Lin, C. H., Sher, P. J., & Shih, H. U. (2005). Past progress and future directions in conceptualizing customer perceived value. *International Journal of Service Industry Management, 16*(4): 318-336.

Lovett, S., Zeiss, A., & Heinemann, G. (2002). Assessment and development: Now and in the future. Team performance in health care. *Assessment and Development. Issues in the Practice of Psychology,* 385-400.

Lucena City Population Census of 2007. Retrieved from National Statistics Office. Location and Land Area. Retrieved from http://www.mylucena.com/

Lux, M., Fasching, P., Schrauder, M., Lohberg, C., Thiel, F., Bani, M. et al. (2011). The era of centers: The influence of establishing specialized centers on patients' choice of hospital. *Archive of Gynecology Obstetrician, 283,* 559–568.

Schwartz, L., Woloshin, S., & Birkmeyer, J. (2005). How do elderly patients decide where to go for major surgery? Telephone interview survey. *BMJ, 331*, 821–827.

Socio Economic Profile of Quezon Province. Retrieved from http://www.quezon.gov.ph/

Sofaer, S. (2008, December). *Engaging consumers in using quality reports: What it takes to 'capture eyeballs'.* Presented at CAHPS User Group Meeting, Available from https://www.cahps.ahrq.gov/content/ community/Events/files/T-6-JC_Shoshanna-Sofaer.pdf

Strategic Management Process – Meaning, Steps and Components. Retrieved from http://www.managementstudyguide.com/strategic-management-process.htm

United Nations Population Fund. (2003). Achieving the millennium development goals: population and reproductive health as critical determinants. *Population and Development Strategies Series 10*. New York: UN.

Victoor, A., Friele, D. et al. (2012). Determinants of patient choice of healthcare providers: a scoping review. *BMC Health Services Research, 12*, 272.

Vonberg, R., Sander, C., & Gastmeier, P. (2008). Consumer attitude about health care-acquired infections: A German survey on factors considered important in the choice of hospital. *American Journal of Medical Quality, 23*(1): 56-65.

Vrangbaek, K., Robertson, R., Winblad, U., Van de Bovenkamp, H., & Dixon, A. (2012). Choice policies in Northern European health systems. *Health Economic Policy Law, 7*, 47–71.

53

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

A Conceptual Model on the Adoption of NFC-enabled Mobile Payment among Consumers in Malaysia

Dhaarshini Balachandran

Faculty of Business & Finance, Universiti Tunku Abdul Rahman (UTAR)

Email: b.dhaarshu_abi28@yahoo.com

Abstract

In traditional payment system, an economic transaction is often completed by using either cash or credit card. However, with the latest advancement in mobile technologies, more people prefer to use the mobile payment system to perform financial transactions since its benefiting them in their daily lives in many ways. Mobile payment is conducted by using a mobile device together with wireless or other communication technology. Particularly, the emergence of NFC Mobile Payment has enabled the users to pay for the goods and services they purchase by tapping their NFC enabled Smartphone to a NFC reader. A glorious future is expected to take place for NFC Mobile Payment. Though, NFC Mobile Payment is widely available and convenient to use, it is not widely adopted by Malaysians and still at the beginning stage. The adoption rate of NFC Mobile Payment in Malaysia is lower compared to the adoption rate of other countries across the globe. It is crucial to encourage consumers to adopt NFC Mobile Payment, since huge amount of money has been spent by the banking institutions, mobile manufactures and retailers in building up the infrastructure. Thus, this study focus on looking into the factors that affect the Malaysian consumers' intention to adopt the NFC Mobile Payment. In order to examine the adoption behaviors, this study has adopted three constructs namely Compatibility, Complexity and Relative Advantage from the Diffusion of Innovation model, and an additional of three constructs namely Variety of Service, Amount of Information and Perceived Financial Resource. A self-administrated questionnaire will be utilized in this study to collect data from the respondents and the data will be analyzed by using Multiple Linear Regression. Apart from that, the results of this study also can be applied in studying the adoption intention of NFC payment method in other technology devices such as advanced mobile phones and personal digital assistants (PDA).

Keywords: NFC mobile payment, Diffusion of Innovation, Mobile phone

Introduction

The emergence of new innovation and technology has brought many changes to the traditional payment systems that being used in business activities. In recent years, more consumers prefer to use their mobile phones to make payment, rather than the traditional payment method which relies on notes and coins to make payment for their purchase. Mobile payment refers to the act an individual using an electronic device which is connected to a mobile network to successfully complete an economic transaction (Liébana-Cabanillas, 2012. Mobile payment enables the payment and transaction between two parties to be conducted in fast, convenient, safe and simple manner from anywhere, at anytime using their handheld mobile device (Mehra, 2010). Though, mobile payment is widely available and convenient to use, it is not widely adopted by Malaysians and still at the beginning stage. Thus, this study focus on looking into the factors that affect the Malaysian consumers' intention to adopt the mobile payment.

Literature Review

Diffusion of Innovation Theory

Diffusion of Innovation is a theory that often used by researches when they intended to study about the factors that affect an individual's intention to adopt an innovation or a new technology. Diffusion of Innovation theory explains how, why, and at what rate a new idea or technology will spread through cultures. According to Rogers (2003), there are five factors that influence an individual's adoption behavior. These factors are known as relative advantage, complexity, compatibility, trialability and observability. Rogers (2003) also further explained that, under Diffusion of Innovation theory, the adopters of a new idea or technology can be divided into five categories, namely innovator, early adopter, early majority, late majority and laggards.
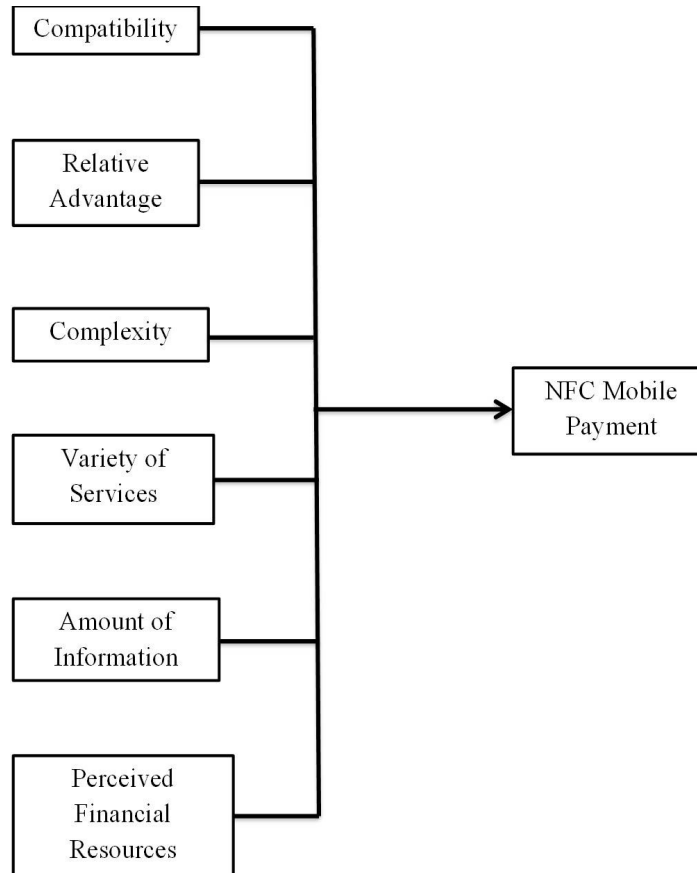
Figure 1: Proposed Research Structure

Proposition Development

Compatibility

According to Chen et al. (2004), Compatibility refers to the extend an innovation or new technology is consistent with the adopter's existing values, beliefs, habits, and past and present experiences. Compatibility is a crucial factor when it comes to innovation. A new innovation or technology that is consistent with the adopter's lifestyle will lead to high adoption rate (Rogers, 2003). Compatibility is an important factor in terms of the adoption of NFC-enabled mobile payment. The user's ability to incorporate the new payment system into their daily life will determine their adoption intention (Lee et al., 2003).

Proposition 1: Compatibility has a significant relationship with the intention to adopt NFC-enabled mobile payment among consumers in Malaysia.

55

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Complexity
      According to Cheung et al. (2000), complexity refers to the extend a new innovation or technology is difficult to understand and not easy to use. Past studies have found out that there is a negative relationship between complexity and adoption rate of new innovation or technology. Complexity in terms of the usage, technical infrastructure and design of technology are some of the factors that act as a barrier in the adoption of new innovation or technology. In terms of the NFC-enabled mobile payment, users' are less likely to adopt it if it requires more mental effort and time to use it (Vrechoupoulos et al. 2003).
Proposition 2: Complexity has a significant relationship with the intention to adopt NFC-enabled mobile payment among consumers in Malaysia.

Relative Advantage
      Relative advantage refers to the extend the new innovation or technology is beneficial compared to its previous variant (More & Benbasat 1991). According to Rogers (2003), relative advantage will increase the efficiency, economic benefits and enhance the status of adopters. Past studies have found out that there is a positive relationship between relative advantage and the adoption rate of new innovation or technology. When it comes to NFC-enabled mobile payment, the users' are more likely to adopt the new payment system if it has more benefit compared to the previous system (Lin, 2011).
Proposition 3: Relative Advantage has a significant relationship with the intention to adopt NFC-enabled mobile payment among consumers in Malaysia.

Variety of Services
      Variety of services refer to the ability to perform a variety of services using a new innovation or technology. Past studies have indicated that there is a positive relationship between variety of services and adoption intention of new innovation or technology (Chong et al., 2010). In terms of NFC-enabled mobile payment system, the user's are more likely to adopt it if the payment system also allow the users to perform other additional activities using it.
Proposition 4: Variety of Services has a significant relationship with the intention to adopt NFC-enabled mobile payment among consumers in Malaysia.

Amount of Information
      The amount of information refers to the availability of sufficient and precise information about the new innovation or technology. Past studies have indicated that there is a positive relationship between the amount of information and the adoption rate of the new innovation or technology (Howard and Moore, 1982). Lack of information about a new innovation or technology will lead to low awareness about it. According to Sathye (1999), low awareness often acts as a barrier in the adoption behavior of a new innovation or technology. In terms of the NFC-enabled mobile payment system, users are more likely to adopt it if they have adequate information about it.
Proposition 5: Amount of Information has a significant relationship with the intention to adopt NFC-enabled mobile payment among consumers in Malaysia.

Perceived Financial Resources
      Perceived financial resources refer to the cost that involved in the adoption or usage of a new innovation or technology. Pass studies have identified that there is a negative relationship between perceived financial resources and the adoption rate of new innovation or technology. Users are more likely to adopt the new payment system if the cost involved in the adoption is low (Ong, Poong, & Ng, 2008). In terms of NFC-enabled mobile payment, perceived financial resources are the cost that's involved in purchasing a mobile phone, subscription fee, service fee, communication and transaction fee and the maintenance cost.
Proposition 6: Perceived Financial Resources has a significant relationship with the intention to adopt NFC-enabled mobile payment among consumers in Malaysia.

Implications
Theoretical Implications
      In theoretical perspective, this study will be useful in understanding which factor have the strongest significant influence in the adoption of NFC-enabled mobile payment. Apart from that, the

56

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

results of this study also can be used in studying the adoption intention of NFC-enabled mobile payment in other technology devices such as advanced mobile phones and personal digital assistants (PDA).

Managerial Implications

In managerial perspective, since Compatibility and Relative Advantage are expected to influence the adoption of NFC-enabled mobile payment in positive way, the manufacturers of the mobile phone, the software developers and banks must ensure that the product and services offered by them is consistent with the consumer lifestyle and offers additional benefits to the users compared to the existing payment system they use. On the other hand, Complexity and Perceived Financial Resources are expected to have a negative relationship with the adoption intention of NFC-enabled mobile payment. Therefore, the mobile phone manufacturers and the software developers should focus on developing user friendly mobile phone and software which can be purchased by the users at an affordable price.

Other than that, parties such as banking institutions, mobile phone manufacturers and software developers also should provide sufficient information to the potential users about how the mobile phone and software can be used to make payment for their purchases and information on how the money from the user's account is used to make the payments. This information is crucial for the adoption of NFC-enabled mobile payment since Amount of Information is also expected to influence the adoption intention of consumers in a positive way. Lastly, the manufacturers of mobile phone is also expected to design the mobile phone in a way it allows the users to perform many other various functions along with the NFC-enabled mobile payment, since Variety of Services is also another factor that expected to influence the adoption intention in a positive way.

Conclusion

The focus of this study is to concentrate on the adoption of NFC-enabled mobile payment among consumers in Malaysia. The research objective of this study is achievable through the use of Diffusion of Innovation framework. The framework used in this plays an important role in delivering highly valuable information to various parties such as banks, merchants, practitioners, software developers and government agencies to design their communication and business strategies. In order to apply the model of this study in practice, it is suggested for the future researchers to examine, validate and enhance the model using the multivariate analysis.

References

A.Y.L. Chong, K.B. Ooi, B. Lin, B. Tan, Online banking adoption: an empirical analysis, *International Journal of Bank Marketing 28* (2010) 267–287.

Chen, L., M. Gillenson, and D. Sherrell, "Consumer acceptance of virtual stores: A Theoretical Model and Critical Success Factors for Virtual Stores," *ACM SIGMIS Database*, Vol. 35, No. 2: 8-31, 2004.

Cheung, W., M. K. Chang, and V. S. Lai, "Prediction of internet and world wide web usage at work: a test of an extended Triandis model," *Decision Support Systems*, Vol. 30, No. 1: 83-100, 2000.

Howard, J. and Moore, W. (1982), ''Changes in consumer behavior over the product life cycle'', in Tushman, M. and Moore, W.L. (Eds),*Readings in the Management of Innovation*, Pitman, Cambridge.

Lee, M. S. Y., McGoldrick, P. J., Keeling, K. A., & Doherty, J. (2003). Using ZMET to explore barriers to the adoption of 3G mobile banking services. *International Journal of Retail & Distribution Management, 31*(6), 340-348.

Liébana-Cabanillas, F. (2012). *El papel de los medios de pago en los nuevos entornos electrónicos*. Tesis Doctoral. Departamento de Comercialización e Investigación de Mercados. Universidad de Granada.

Lin., H., "An empirical investigation of mobile banking adoption: The effect of innovation attributes and knowledge-based trust," *International Journal of Information Management*, Vol. 31, No. 3: 252-260, 2011.

Mehra, R. (2010). Paying for goods and services using a mobile phone: Exploring mobile payment use and adoption. Master's thesis. AUT University.

Moore, G. C. and I. Benbasat, "Development of an instrument to measure the perceptions of adopting an information technology innovation," *Information Systems Research*, Vol. 2, No. 3: 192-222, 1991.

57

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

Ong, J. W., Poong, Y. S., & Ng, T. H. (2008). 3G services adoption among university students: Diffusion of innovation theory.*Communications of the IBIMA*, 3(16), 114–121.

Rogers, E. M. (2003). *Diffusion of innovations*(5th ed.). New York: Free Press.

Sathye, M. (1999), ''Adoption of internet banking by Australian consumers: an empirical Investigation'',*International Journal of Bank Marketing*, Vol. 17 No. 7, pp. 324-34.

Vrechoupoulos, A., I. Constantiou, I. Sideris, G. Doukidis, and N. Mylonopoulos, "The critical role of consumer behaviour research in mobile commerce," *International Journal of Mobile Communications*, Vol. 1, No. 3: 329-340, 2003.

58

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

The Influence of Core Self-Evaluations and Work-Life Enrichment on Work Engagement: Job Demands as Moderator

Lee-Peng Ng[a], Hassan Ali[b]

[a]Faculty of Business & Finance,Universiti Tunku Abdul Rahman, Malaysia,
email: nglp@utar.edu.my
[b]College of Business, Universiti Utara Malaysia, Malaysia,
email: hassan@uum.edu.my

Abstract

This study aims to examine the influence of core self-evaluations and work-life enrichment on work engagement among the academics in Malaysian public universities. Besides, the moderating effects of job demands on these relationships were investigated as well. Questionnaire survey was conducted among academics from 18 public universities in Peninsular Malaysia. A total of 385 completed and usable questionnaires have been received. The results showed that core self-evaluations, work-life enrichment (i.e. work-to-personal life, and personal life-to-work enrichment) are significant predictors of work engagement among the academic staff. On the other hand, work-to-personal life enrichment is found to be more strongly related to work engagement when job demands are high, thus support the boosting hypothesis. Nevertheless, the moderating effects of job demands between the other two variables (i.e. core self-evaluations and personal life-to-work enrichment) and work engagement are not empirically established. The findings show that work-personal life interface and personality can have profound effects on one's work engagement. Implications and limitations of the study are discussed.

Keywords: Work engagement, core self-evaluations, work-life enrichment, job demands.

Introduction

The development of positive psychology (Seligman & Csikszentmihalyi, 2000) and positive organisational behaviour (Luthans, 2002a, 2002b) have led to the increase interests among the scholars to perform more scientific studies on work engagement (Schaufeli & Bakker, 2010). Positive organisational behaviour emphasizes on developing human strengths and capabilities to improve the workplace performance (Luthans, 2002b). Nevertheless, existing literatures are still dominated by studies related to individual's weaknesses or malfunctioning, such as stress and burnout (Bakker, Schaufeli, Leiter, & Taris, 2008). Studies on work engagement would enable more effective application of positive traits and behaviour among employees in the work place (Luthans & Youssef, 2007).

Empirical studies proved that engaged employees contributed to improved job performance (Chung & Angeline, 2010; Xanthopoulou, Bakker, Heuven, Demerouti, & Schaufeli, 2008), organisational citizenship behaviour (Saks, 2006), personal initiative (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008), job satisfaction and organisational commitment (Hakanen, Bakker & Schaufeli, 2006; Saks, 2006). Nevertheless, studies by consultant firms, such as Gallup (2013) showed that American businesses suffering from $450 billion to $550 billion loss of productivity per year due to disengaged workforce. As such, more in depth studies on the antecedents of work engagement is important as the efforts would be

59

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

able to reduce the "engagement gaps" (the employees' actual work engagement level versus the management expectation) that faced by many organisations (Towers Perrin, 2008).

In view of today's competitive and dynamic environment, attracting and retaining a group of talented and engaged employees are critical in determining an organisation's overall performance and sustainable competitive advantage. Besides, it is also equally important for an organisation to prepare an avenue that allows employees to unleash their full potential and be engaged in their works. The above issues not only concern the corporate sectors, but also the higher education institutions, particularly the universities. Engaged academics are essential to enhance the performance of the organisation and to ensure the ability of the local public universities to compete globally. Despite a number of studies related to higher education institutions (HEIs) can be found, previous studies were largely concentrated on job satisfaction (Chen, Yang, Shiau, & Wang, 2006; Eyupoglua, & Saner, 2009), organisational commitment (Yew, 2011), stress (Gmelch, Wilke & Lovrich, 1986; Yew, 2011), and burnout (Ghorpade, Lackritz, & Singh, 2007; Lackritz, 2004). Thus far, there are still relatively limited comprehensive and systematic studies that concentrated on work engagement among academic staff of Malaysian public universities.

Numerous previous studies have extensively focused on the combination of different job resources (e.g. fairness, advancement opportunities, rewards, job security, and value fit) in predicting work engagement (Crawford, LePine, & Rich, 2010; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Schaufeli & Bakker, 2004; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Generally, the findings consistently revealed that job resources were positively related to work engagement. On the other hand, the knowledge about how individual dispositions or personality variables may influence work engagement have been neglected to a certain extent, thus deserve more attentions (Mauno, Kinnunen, & Roukolainen, 2007; Sonnentag, Dormann, & Deremouti, 2010). These personal resources were found to have similar function as job resources in predicting work engagement. For example, high extraversion and low neuroticism (Langelaan, Bakker, Van Doornen, & Schaufeli, 2006), and organisational-based self esteem (Mauno et al., 2007) were related to work engagement. Core self-evaluations (CSE) is a dispositional variable that gaining popularity in recent years (Judge, Locke, & Durham, 1997). CSE refers to the way how individuals perceive their importance, ability and competency (Judge, Bono, Erez, & Locke, 2005; Judge, Van Vianen & De Pater, 2004). Studies on the linkage between CSE and employees' engagement at work are still limited, except the study by Rich, Lepine, and Crawford (2010). Nevertheless, their study utilised a work engagement scale that different from present study and the survey was conducted among the firelighters.

In addition, the studies on the influence of positive side between work and personal life (i.e. work-life enrichment) on work engagement seem to remain scant thus far. Traditional view is that individual's involvement in multiple roles would lead to conflict or depletion of resources (Dorio, Bryant, & Allen, 2008). Nevertheless, increasing studies found that individuals may gain synergies and mutual benefits from their involvement in multiple roles, which eventually improve their well-being (Barnett & Hyde, 2001; Barnett, 2008). The interaction between work and family domain are the most widely found in the literatures (Allis & O'Driscoll, 2008; Eby, Wendy, Lockwood, Bordeaux, & Brinley, 2005). Nevertheless, individual's personal life may encompass different aspects of life (e.g. time with friends, hobbies, leisure etc.), not merely time with family. As such, work-life enrichment, in contrast to work-family enrichment provides broader meaning to the aspects of personal life.

One of the assumptions in Job demands-resources (JD-R) model of work engagement (Bakker & Demerouti, 2008), which was adopted from Conservation of Resources (COR) theory (Hobfoll, 1989) is related to the boosting effect of resources in the context of high job demands. This means the motivational potential of resources increase when one is confronted with demanding situation. There are still limited studies on the moderating effect of job demands in resources-work engagement relationship, except Hakanen, Bakker and Demerouti (2005) and Bakker, Hakanen, Demerouti, and Xanthopoulou (2007). These analyses mainly focus on the interaction effects between job demands and different job resources (e.g. contacts with peers, creativity, and information). To date, the literatures have yet to offer compelling evidence regarding the moderating effect of job demands on the relationships between core self-evaluations, work-life enrichment, and work engagement.

60

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

In short, the purpose of the present study is twofold: (a) to examine the influence of CSE and work-life enrichment on work engagement; and (b) to determine the potential boosting effects of the two resources (i.e. CSE and work-life enrichment) when the academics are confronting with high job demands.

Literature Reviews

Work Engagement

Work engagement reflects a positive psychological well-being (Schaufeli & Salanova, 2007). It is defined as a "positive, fulfilling, work-related state of mind that is characterised by vigor, dedication, and absorption" (Schaufeli, Salanovaa, González-Romá, & Bakker, 2002, p. 74). Absorption describes individuals who are very focus, immerse and happy with what they are doing till they forgot about the time, and it is not easy for them to detach themselves from their work. Vigor mainly refers to the characteristics of individuals who are energetic, strong mentally, always put the best efforts in their work, and remain perseverant despite of obstacles. On the other hand, dedication explains the phenomenon whereby individuals are enthusiastic about their jobs; they view their works as challenging and inspiring (Schaufeli et al., 2002). In fact, different definitions of employee engagement have been provided by the human resource consultant firms, like Gallup, Hewitt and Towers Perrin (Schaufeli & Bakker, 2010). This phenomenon has resulted to confusion between work engagement and other concepts, such as job satisfaction, organisational commitment and workaholism. However, prior empirical studies (e.g. Hallberg & Schaufeli, 2006; Mauno et al., 2007; Shimazu, Schaufeli, Kubota & Kawakami, 2012) showed that work engagement is distinct from the other concepts.

Burnout researchers, such as Leiter & Maslach (2004) viewed work engagement as the direct opposite of burnout that can be measured by using the same instrument (i.e. Maslach Burnout Inventory-General Survey). This means that high scores on professional efficacy and low score on exhaustion and cynicism are the indicator of favourable work engagement (Leiter & Maslach, 2004). Schaufeli et al. (2002) though agree that work engagement is the positive antithesis of burnout, he argued that they are two distinct concepts that must be measured separately. As such, Schaufeli et al. (2002) developed the 17-item Utrecht Work Engagement Scale (UWES) and it becomes the most commonly used instrument by various researchers to measure work engagement in recent years. UWES has been proven to be a reliable and valid instrument to measure work engagement (Mostert & Rathbone, 2007; Sonnentag, 2003; Koyuncu, Burke, & Fiksenbaum, 2006). The UWES has been validated in different countries across the world, such as Greece (Xanthopoulou, Bakker, Kantas, & Demerouti, 2012), Japan (Shimazu et al., 2008), The Netherlands (Schaufeli & Bakker, 2004; Xanthopoulou et al., 2012), and Sweden (Hallberg & Schaufeli, 2006).

Work-Life Enrichment

Traditionally, the studies in work-family/personal life tend to focus on scarcity hypothesis. Nevertheless, Barnett and Hyde (2011) argued that the benefits obtained from the multiple roles participation outweigh the stress level experienced by individuals. In recent years, the positive side of the work and nonwork domains begin to receive more attention from various researchers in respond to the call for a more wholesome understanding of the work and nonwork interface (Carlson & Grzywacz, 2008). Work-life enrichment is defined as "the extent to which experiences in one role enhances the quality of life in another role" (Greenhaus & Powell, 2006, p. 73). As research paradigm shift, the uni-directional nature of work-family/personal life studies have been challenged, and more studies focus on the bi-directional natures of relationship between work and personal life domain (Fu & Shaffer, 2001; Gutek, Searle & Klepa, 1991).

Adapted from Carlson, Kacmar, Wayne, and Grzywacz's (2006), work-family enrichment definition, work-to-personal life enrichment (WPLE) refers to the extent to which the psychological resources, positive emotion or attitude, and development resources (e.g. opportunities, knowledge and skill) that individuals developed or obtained through involvement in work roles that is beneficial to their roles in personal life. Likewise, personal live-to-work enrichment (PLWE) refers to the extent to which the positive emotion or

61

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

attitude, development resources and efficiency that individuals developed or gained through involvement in personal life roles benefit their roles in work (Carlson *et al.*, 2006). Fisher, Bulger, and Smith (2009) stated that global scale or general approach in measuring personal life/nonwork domain is appropriate as the measure will be more appropriate to be applied to respondents who are single, married, and married without children. Prior studies showed that work-to-family enrichment positively linked to job satisfaction (Masuda, McNall, Allen, & Nicklin, 2012; Ng, Ahmad & Omar, 2014), and organisational commitment (Aryee, Srinivas, & Tan, 2005). On the other hand, family-to-work enrichment was related to greater job efforts (Wayne, Musisca, & Fleeson, 2004), lower turnover intention (Wayne, Randel, & Stevens, 2006), and reduce depression (Grzywacz & Bass, 2003). Both directions of work-family enrichment were also found to improve affective commitment and job satisfaction (McNall, Masuda, & Nicklin, 2010). In a study among 69 newspaper managers, Montgomery, Peeters, Schaufeli, and Ouden (2003) found that positive work-home interaction increased work engagement and reduced burnout. Resources are viewed to have motivational potential in enhancing work engagement and improved well-being (Bakker & Schaufeli, 2008). As such, employees are expected to be more engaged in their works through the resources generated through cross-domains enrichment. Based on the above reviews, the following hypotheses were proposed:

H1a: There is a positive relationship between work-to-personal life enrichment and work engagement.
H1b: There is a positive relationship between personal life-to-work enrichment and work engagement.

Core Self-Evaluations

Core self-evaluations (CSE) can be described as the basic appraisals or evaluations that people make about their competency, effectiveness and worthiness (Judge, Locke, and Durham, 1997; Judge *et al.*, 2005). CSE reflect the positive and negative evaluation that individuals make about their capabilities, strength, and contribution (Judge et al., 2005). CSE is a "higher-order personality trait" that comprises of four major traits, namely self-esteem, locus of control, generalized self-efficacy, and emotional stability (Judge et al., 1997, Judge, Erez, & Bono, 1998). Initial measurement of CSE was based on the summation scores of the four traits, however this approach lead to confusion. Besides, high correlations were found among these four traits (Judge et al., 2004). As a result, a 12-item CSE scale was developed and it is well validated across cultures (Judge et al., 2004).

Empirical analyses showed that CSE was related to job satisfaction (Best, Stapleton, & Downey, 2005; Erez & Judge, 2001), life satisfaction (Judge *et al.*, 1998, 2005), job performance (Erez & Judge, 2001), goal self-concordance (Judge *et al.*, 2005), job stress (Brunborg, 2008) and burnout (Best et al., 2005). Moreover, recent study by Rich, Lepine, and Crawford (2010) demonstrated that there was significant positive relationship between CSE and job engagement based on a sample of fire fighters. Despite different instrument was used by Rich et al. (2010) in measuring job engagement, but the roles of personal resources in predicting work engagement have been explained in JD-R model of work engagement (e.g. personal characteristics and coping strategy). Some studies found organisational based self-esteem (Mauno et al., 2007) and occupational self-efficacy (Pati & Kumar, 2010) were positively related to work engagement. These dispositional variables are among the component as explained in CSE theory. Judge et al. (1997) explained that CSE influence employees' attitude through the generation of positive emotion and feelings that spill over onto their jobs. High CSE employees might see work as a challenge which may stimulate his/her motivation to engage in the work. The above arguments give rise to the following hypothesis:

H2:   There is a positive relationship between core self-evaluations and work engagement.

Job demands

Job demands are "those physical, psychological, social, or organisational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs" (Bakker & Demerouti, 2007, p. 312). Job

62

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

demands, such as workload, time pressure, and adverse working environment are often associated with stress or burnout (Schaufeli & Bakker, 2004). Evidences from prior studies demonstrated job demands were related to lower individual well-being and unfavourable work outcomes, particularly burnout (Schaufeli & Bakker, 2004), health complaints (Demerouti *et al.*, 2001) and turnover intention (Schaufeli & Bakker, 2004) among the employees.

In work engagement literatures, the findings of the direct relationship between job demands and work engagement were relatively mixed. Sawang (2012) found that adequate level of job demands have positive impact on work engagement. Nevertheless, too few or excessive job demands will adversely affect work engagement.

COR theory (Hobfoll, 1989) assumed that different resources (e.g. personal characteristics and job related resources) not only buffer the negative impact between job demands and strain, but these resources become more salient when a person faced high job demands. This assumption has been incorporated into JD-R model of work engagement (Bakker & Demerouti, 2008).

Previous studies showed that the bi-directions of work-life enrichment generate positive emotion and feelings (Bhargava & Baral, 2009) and it would eventually enhance employees' work engagement. In fact, this is also consistent with Fredrickson's (2001) broaden and build theory, which suggest work engagement can be an outcome of positive emotion. Meanwhile, WPLE and PLWE were found to buffer against negative impact of stressor (Greenhaus & Powell, 2006). Put it differently, individuals who own more resources through work and personal life interactions should be able to deal with more demanding situations. Findings by Lu, Siu, Chen, and Wang (2011) found that job demands moderated the relationship between family mastery and work engagement.

CSE is regarded as personal resource that not only capable in buffering the negative impact between job demands and strain, but the influence of CSE on work engagement is particularly strong when the academics are facing with high job demands. Xanthoupolou, Bakker, and Fishbach (2013) found that emotional demands moderated the relationship between self-efficacy and work engagement. In the situation of high job demands, employees with positive CSE who view themselves as more capable and competent in handling tasks would more actively search for better solutions, thus they become more engaged in their job.

The following hypotheses are derived from the above arguments:

H3a: Job demands moderate the relationship between work-to-personal life enrichment and work engagement
H3b: Job demands moderate the relationship between personal life-to-work enrichment and work engagement
H3c: Job demands moderate the relationship between personal life-to-work enrichment and work engagement

Methodology

Respondents Profile and Procedure

The participants of this study comprise of academic staff from 18 Malaysian public universities that located in Peninsular Malaysia. From the total 756 self-administered questionnaires that personally distributed to the academics in different public universities located in Peninsular Malaysia. Due to the geographical distance among the universities and other constraints encountered, the survey took about four months to be completed. A total of 385 completed and usable questionnaires were received, thus yielding a response rate of 50.9%.

Out of 385 respondents, 166 (43.2%) are male and 219 (56.9%) are female. In term of the qualification of the respondents, 215 (55.8%) are PhD holders, while the balance of 167 (44.2%) are Master degree

63

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

holders. Meanwhile, the Malay academics are the biggest ethnic group in this survey, which comprise of 71.7% of the total respondents, followed by Chinese (16.9%), Indian (3.1%) and other ethnics group (8.3%).

In relation to the academic position held by the respondents, 161 (41.8%) are lecturers, 162 (42.1%) are senior lecturers, 13 (3.4%) are assistant professors. Another 36 (9.4%) and 13 (3.4%) of the respondents are those with associate professors and professor title respectively. Most of the respondents are relatively young, as the largest group of respondents are with the age range from 31-35 (24.4%) and 36-40 (23.1%), followed by those with age range of 51 and above (15.3%), 41-45 (14%), 46-50 (10.9%), 26-30 (10.6%) and 21-25 (1.6%).

The largest group of participants in this study is from MARA University of Technology (UiTM) (67) and the smallest group is National Defense University of Malaysia (UPNM) (3). Participants from University of Malaya (UM), International Islamic University Malaysia (UIAM), National University of Malaysia (UKM), University of Technology Malaysia (UTM), Science University of Malaysia (USM), Putra University of Malaysia (UPM), Northern University of Malaysia (UUM) are 41, 35, 36, 34, 32, 27 and 21 academics respectively. Meanwhile, there are 15 participants from Tun Hussein Onn University of Malaysia (UTHM), 12 from University of Technical Malaysia Melaka (UTeM), 9 participants each from Islamic Science University of Malaysia (USIM) and University of Malaysia Pahang (UMP). The number of candidates from University of Malaysia Terengganu (UMT) and Sultan Zainal Abidin University (UniSZA) are 8 each. Lastly, there are 11 academics from University of Malaysia Perlis (UniMAP) and 8 from Universiti of Malaysia Kelantan (UMK).

Measures

Work engagement was measured with the 17-item Utrecht Work Engagement Scale (UWES) developed by Schaufeli *et al.*, (2002). Work engagement comprises of three subscales, namely vigor, dedication and absorption. Seven-point Likert scale with the anchors ranging from never (1) to always (7) for all the items. Higher overall scores reflect higher work engagement. Six items were used to measure vigor, sample item is "I can continue working for very long periods at a time". Dedication comprised of five items, sample item include "I am proud of the work that I do". Lastly, absorption was measured by using six items, sample item include "Time flies when I'm working".

Core self-evaluations scale consists of 12 items, adopted from Judge *et al.* (2003). Six items of this measure required reversed coding so that the higher score reflects positive core self-evaluations. Five-point Likert scale, ranging from strongly disagree (1) to strongly agree (7) are used. Sample items include "I am capable of coping with most of my problems" and "Sometimes, I feel depressed."

Work-life enrichment scales were adapted from Carlson *et al.*'s (2006). There are a total of 18 items, nine items representing work-to-personal life enrichment (WPLE) and the balance measure personal life-to-work enrichment (PLWE). These items were measured on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). A sample item for WPLE includes "My involvement in my work provides me with a sense of accomplishment and this helps me be a better person." Slight modification was made by replacing the term "worker" to "person." Meanwhile, sample items for PLWE are "My involvement in my personal activities put me in a good mood and this helps me be a better employee". Minor modification was made by replacing the term "family" to "personal activities."

Job demands were measured with an eight-item index, adapted from Rothman and Joubert (2007). Sample item is "My job requires all of my attention". The response option ranged from strongly disagree (1) to strongly agree (7). Higher scores show that the job is more demanding.

Analysis and Results

Descriptive Statistics and Reliability Analysis

The means, standard deviations, and Cronbach's alpha values of the key variables in this study are presented in Table 1. The Cronbach's alpha values for all key variables in this study are greater than 0.70 (Nunnally, 1978; Hair et al., 2007), indicating good reliability.

Table 1
Reliability and Descriptive Statistics of the Key Variables in Present Study

Variables	α	Mean	SD
1. Work-to-personal life enrichment	0.950	5.840	0.781
2. Personal life-to-work enrichment	0.951	5.710	0.870
3. Core self-evaluations [a]	0.788	4.840	0.812
4. Job demands	0.870	5.083	0.966
5. Work engagement	0.929	5.311	0.794

Note. SD = standard deviation, α = Cronbach's alpha.

a. Exploratory factor analyses have been performed prior to reliability analysis. Three items of core self-evaluations scale were deleted due to factor loadings below the threshold of 0.5, nine items remain for further analysis

Testing Assumptions

Initial screening of normality was performed by checking the skewness and kurtosis values of the individual variable. No severe violations were detected in the preliminary analysis. Further analyses on multivariate assumptions were performed through visual inspection of normal probability plot of regression standardized residual. The residual points were found to lie along the diagonal line (Figure 1), thus confirm that the data is normally distributed (Tabachnick & Fidell, 2013). Besides, there is no definite pattern of residual plots (Figure 2). This showed that both the assumption of linearity and homoscedasticity were met (Hair, Money, Page, & Samouel, 2007). Moreover, collinearity statistics showed that variance inflation factor for the predictor variables in this study, ranged from 1.160 to 2.165, which were less than the threshold of 10 (Sekaran & Bougie, 2009). Hence, the result confirmed there was no problem of multicollinerity. Mahalanobis distance was used to determined multivariate outliers. Based on the critical value of critical X^2 with $p < 0.001$, 19 cases were detected as multivariate outliers, and they were deleted from further analyses eventually.
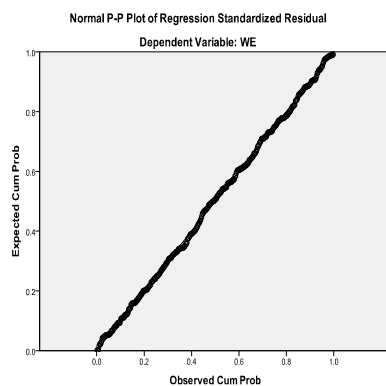
Figure 1
Normal P-P Plot of Regression Standardised Residual
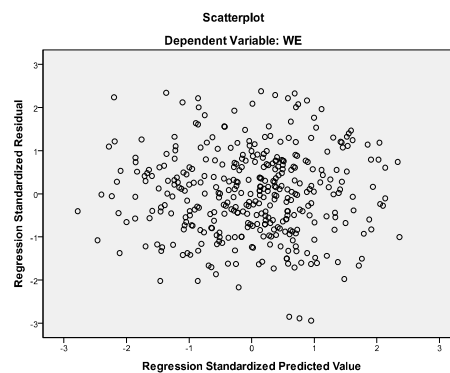
Figure 2
Standardised Residuals for the Multiple Regression Data

Pearson Correlation Analysis

65

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

Table 2 showed the correlations among the major variables in this study. The two subscales of work-life enrichment, which are work-to-personal life enrichment (r = 0.569, p < 0.01) and personal life-to-work enrichment direction (r = 0.491, p < 0.01) are found to be positively correlated with work engagement. Similarly, core self-evaluations (r = 0. 388, p < 0.01) are moderately associated with work engagement at the same direction, but with lower magnitude as compared to the work-life enrichment scales. No significant association between job demands and work engagement was found.

Table 2
Correlations among key variables for the study

	1	2	3	4
1. Work-to-personal life enrichment	-			
2. Personal life-to-work enrichment	.719**	-		
3. Core self-evaluations [a]	.363**	.316**	-	
4. Job demands	-.076	-.085	-.288**	-
5. Work engagement	.569**	.491**	.388**	.047

** Correlation is significant at the 0.01 level

Hierarchical Multiple Regression Analysis
In order to examine both the main effects of the independent variables (i.e. CSE, WPLE, and PLWE) on work engagement as well as the potential moderating effects of job demands on these relationship, hierarchical multiple regression analyses were employed. The dependent variable, work engagement was first entered into the regression, followed by the moderator, and then the interaction terms. Table 3 shows the summary of the results.

Table 3

Hierarchical regression results for the moderating effects of job demands between work-life enrichment, core self-evaluations, and work engagement

Dependent variable: Work engagement

Variables	Step 1		Step 2		Step 3	
Independent variables	**Beta**	**t**	**Beta**	**t**	**Beta**	**t**
WPLE	.390**	6.367	.382**	6.334	-.298	-.886
PLWE	.147*	2.443	.152*	2.566	.451	1.378
CSE	.200**	4.462	.248**	5.410	.562	2.430
JD			.161**	3.763	-.115	-.303
WPLE X JD					1.215*	2.063
PLWE X JD					-.485	-.938
CSE X JD					-.419	-1.389

F value	71.420**	59.053**	34.713**
R	.610	.629	.636
R^2	.372	.396	.404
Adjusted R^2	.367	.389	.393
R^2 Change (ΔR^2)	.372	.024	.009

Note. N = 366, the beta values are based on the standardized regression coefficient, WPLE = work-to-personal life enrichment, PLWE = personal life-to work enrichment, CSE = core self-evaluations, JD = job demands

** Correlation is significant at the 0.01 level; * Correlation is significant at the 0.05 level

Table 3 showed that WPLE, PLWE and CSE have significant main effects on work engagement. The three independent variables explained 37.2% of the total variance in work engagement (R^2 = 0.372, F = 71.42, $p < 0.01$). WPLE (β = 0.390, t = 6.367, $p < 0.01$) and PLWE (β = 0.147, t = 2.443, $p < 0.05$) were positively related to work engagement. CSE (β = 0.200, t = 4.462, $p < 0.01$) was positively linked to work engagement as well. As such, hypothesis 1a, 1b and 2 are supported.

The moderator, job demands were entered at the second step and lead to the increase of R^2 by 2.4% (ΔR^2 = 0.024, R^2 = 0.396, F = 59.05, $p < 0.01$). Job demands was found to significantly related to work engagement (β = 0.161, t = 3.763, $p < 0.01$). The entry of the interaction terms in step three result to an addition of 0.9% explained variance, thus total variance explaining work engagement amounted to 40.4% (ΔR^2 = 0.009, R^2 = 0.404, F = 34.713, $p < 0.01$). Out of the three interaction terms as shown in step three, job demands only significantly interact with WPLE to predict work engagement (β = 1.215, t = 2.063, $p < 0.05$). The other two interaction terms (PLWE x JD and CSE x JD) were not significant as p-values are greater than 0.05. As such, only hypothesis 3a was supported.

In line with the suggestion by Cohen and Cohen (1983), the nature of interaction of the significant interaction effects in this study was present graphically (Figure 3). Overall, employees who score high on WPLE are more frequently engage when job demands are above median (high job demands) than those who experience low WPLE. Furthermore, the relationship between WPLE and work engagement were significant when job demands are low (β = 0.502, t = 7.758, $p < 0.01$) and high (β = 0.636, t = 11.184, $p < 0.01$).
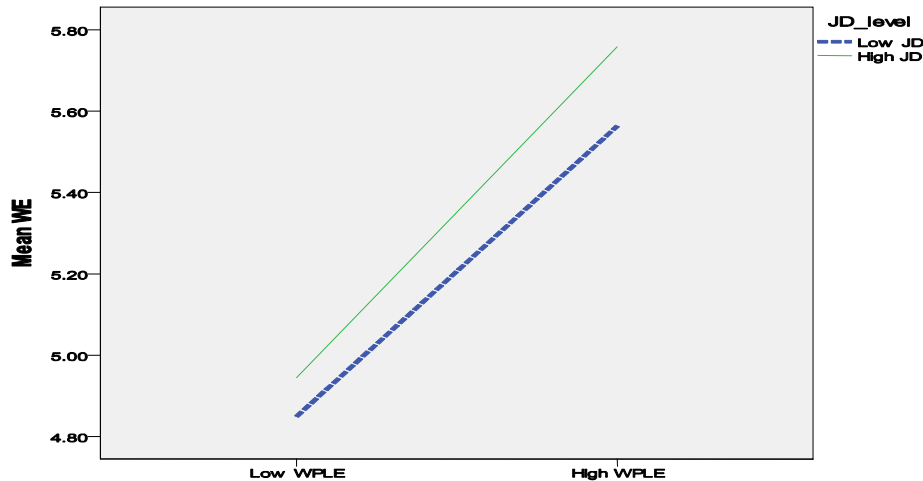
Figure 3 Interaction effect of job demands and work-to-personal life enrichment on work engagement

Discussions

Hypothesis 1a and 1b assert that work-to-personal life enrichment (WPLE) and personal life-to work-enrichment (PLWE) are positively related to work engagement among the academic staff. These hypotheses are fully supported in this study. Present findings are in agreement with the enrichment theory, which suggest that the resource gains from one domain can improve the performance in another domain, and this process would eventually promote favourable work behaviour and attitudes (Carlson *et al.*, 2006; Greenhaus & Powell, 2006). The patterns of outcomes of this study were in consonance with the study by Montogomery *et al.* (2003) on the positive relationship of the dual directions of positive work-nonwork interaction and work engagement. Further, the present study corroborates the ideas of Weer, Greenhaus, & Linnehan (2010) as well as Hecht and Boies (2009) that individuals acquire more resources through their commitment in multiple personal life roles, such as positive emotion, interpersonal skill and self-confidence. Such resources gains improve work engagement among the academics.

The results showed that CSE positively related to work engagement, thus support the second hypothesis (H2). The finding is compatible to the notion that personal resources are an important predictor of work engagement as proposed in JD-R model of work engagement (Bakker & Demerouti, 2008). As such, the result further supports the finding by Rich *et al.* (2010) on the significant role of CSE in explaining individuals' engagement in their job. Individuals with positive CSE view job as more attractive; they are more willing to handle tasks with greater challenges and complexity since they are confident with their capability (Judge *et al.*, 2000). In short, the academics with positive CSE are more optimistic and confidence in dealing with rising challenges and expectations in the universities.

The boosting hypotheses are not fully supported in this study. Job demands were only found to significantly moderate the relationship between WPLE and work engagement (H2a). Interaction effects between job demands and PLWE was not significant. This means WPLE shows stronger relationship with work engagement when academics are facing with high JD as compared to the situation of low JD. However, the relationship between PLWE and work engagement is not influenced by the demanding work conditions, thus hypothesis H2b is not supported. As such, Malaysian public universities academics benefited most from WPLE when they experienced high job demands.

68

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Similarly, the effect of CSE has not been exaggerated even though the academics have to handle great demands from their job. With regards to the interaction effects of personal resources and job demands in predicting work engagement, inconsistent findings were observed. For instance, Xanthoupoulou *et al.*, (2013) found significant interaction effect between emotional demands and self-efficacy, but interaction between optimism and job demands were not significant. It is possible that the academics with high CSE tend to view their job positively, thus they believe that demanding requirements in the job can be solved eventually without substantial personal efforts. As a result, the academics did not fully make use of their personal resources (i.e. CSE) to deal with job demands that they face, thus not improve work engagement.

Practical Implications

In this study, positive CSE academics were found to be more engaged in their works. Selection process of a university may place more attention on individuals who possess positive CSE since they are more engaged in their work. Apart from this, the human resource development of the university should place emphasis on various efforts that can shape or develop positive CSE among the academics, such as providing adequate training, coaching and mentoring (Joo, Jeung, & Yoon, 2010).

The result of this study shows that personal life-to-work enrichment and work-to-personal life enrichment can improve work engagement. This suggests that the management should provide flexibility and off-time that allow employees' to be involved in non-work activities such as leisure, sport, volunteering work as well as hobbies. Personal activities are useful in developing individual's knowledge and skill, improving efficiency, and develop good mood which will in turn make them to be more engaged in their work (Carlson *et al.*, 2006; Weer *et al.*, 2010). Hence, the management should assist employees in achieving greater balance in their work and personal life through work life policies and programmes, like flex-time and telecommunication, childcare and eldercare assistance (Andreassi & Thompson, 2008; Poelmans, Stepanova, & Masuda, 2008).

Though direct relationship between job demands and work engagement had not been hypothesised in this study, but step two of the hierarchical regression result showed a positive relationship between job demands and work engagement. The result was in line with the arguments that job demands may serve as a motivator as long as it is not excessive (Mauno et al., 2007; Sawang, 2012). In a meta-analysis, Crawford et al. (2010) grouped demands into two – challenge demands and hindrance demands. They explained that challenge demands (e.g. workload, job responsibilities, time urgency and job complexity) may improved work engagement, whereas hindrance demands (e.g. role conflict and inadequacies) will reduce work engagement. As the boosting effect of work-to-personal life enrichment in stimulating work engagement was proven when the academics are confronting with demanding job, which can lead to improved work engagement. The superior may discuss with the employees in determining appropriate level of workload and work requirement.

The interaction between personal resources (i.e. CSE) and job demands were not significant in this study. Prior studies showed relatively mixed result as Xanthoupoulou et al., (2013) also found that demanding conditions in job fail to moderate the relationship between optimism and work engagement. With regards to the findings of the present study, possible explanation is that academics with high CSE tend to view their job positively, thus they believe that demanding requirements in the job can be solved eventually without substantial personal efforts.

Limitations and Future Research

There are several limitations that need to be acknowledged in this study. Firstly, this study employs a cross-sectional design in which the data were collected at a single point in time (Zikmund, Babin, Carr, & Griffin, 2010). Such approach limits the ability of the researcher to infer causal relationship among the key variables of the current study. While this study is constrained by the time limitation which makes longitudinal study impractical at the present point of research, future research should consider longitudinal study to obtain better insights on the causal effects of the hypothesized relationships in this study. This approach is particularly meaningful as there is relatively lack of longitudinal studies found in the work engagement studies in Asian context as compared to the West (e.g. Hakanen, Perhoniemi, & Toppinen-Tanner, 2008; Xanthopoulou *et al.*, 2008).

Second, present study relied on self-report questionnaires as a single source of response, which might be subjected to the problem of common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The participants rated themselves all the items given in the questionnaire. The main concern is that there is possibility that the result might be biased and consequently result to potentially misleading or inaccurate conclusion (Podsakoff et al., 2003). Hence, future research may utilise multiple sources in the data collection process in their studies. Despite of the above limitations, Spector (1994) explained that cross-sectional design self-report methodology is very useful in organisational behaviour studies and it allows the researchers to understand the respondents' feelings and thoughts about their job.

Third, the main effect hypotheses only explained about 37% of the total variance of work engagement, thus future researcher may include other variables, particularly combination of different of job resources (e.g. varying human resources practices and organisational culture) and other personal resources (e.g. coping abilities).

Conclusion

In conclusion, this study statistically that CSE and work-life enrichment (i.e. WPLE and PLWE) have their motivational potential, which eventually heightened work engagement among the academic staff. The presence of job demands boosts the effect of the relationship between WPLE and work engagement. The management of university ought to support efforts toward positive work-life culture and develop positive CSE academic staff through various human resources programmes.

References

Allis, P., & O'Driscoll, M. (2008). Positive effects of nonwork-to-work facilitation on well-being in work, family and personal domains. *Journal of Managerial Psychology*, 23(3), 273-291.

Andreassi, J. K., & Thompson, C. A. (2008). Work-family culture: Current research and future direction. In Korabik, K., Lero, D. S. & Whitehead, D. L. (Eds.). *Handbook of work-family integration: Research, theory, and best practices* (pp. 331 – 351). Amsterdam: Academic Press.

Aryee, S., Srinivas, E. S., & Tan, H. H. (2005). Rhythms of life: Antecedents and outcomes of work-family balance in employed parents. *The Journal of Applied Psychology*, 90(1), 132-146.

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328.

Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement particularly when job demands are high. *Journal of Educational Psychology*, 99(2), 274-284.

Bakker, A.B., & Schaufeli, W.B. (2008). Positive organizational behaviour: Engaged employees in flourishing organisations. *Journal of Organizational Behavior*, 29(2), 147-154.

Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress*, 22(3), 187-200.

70

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

Barnett, R. C. (2008). On multiple roles: Past, present and future. In K. Korabik, D. S. Lero, & D. L. Whitehead (Eds.), *Handbook of work-family integration: Research, theory, and best practices* (pp.75-93). London: Elsevier.

Barnett, R. C., & Hyde, J. S. (2001). Women, men, work and family: An expansionist theory. *The American Psychologist*, 56(10), 781–796.

Best, R. G., Stapleton, L. M. & Downey, R. G. (2005). Core self-evaluations and job burnout: The test of alternative models. *Journal of Occupational Health Psychology*, 10(4), 441-451.

Bhargava, S., & Baral, R. (2009). Antecedents and consequences of work–family enrichment among Indian Managers. *Psychological Studies*, 54,213–225.

Carlson, D. S., & Grzywacz, J. G. (2008). Reflections and future directions on measurement in work-family research. In K. Korabik, D. S. Lero, & D. L. Whitehead, (ed.), *Handbook of work-family integration: Research, theory, and best practices* (pp.57-73). Amsterdam: Elsevier.

Carlson, D. S., Kacmar, K. M., Wayne, J. H., & Grzywacz, J. G. (2006). Measuring the positive side of the work-family interface: Development and validation of a work-family enrichment scale. *Journal of Vocational Behavior*, 68(1), 131-164.

Chen, S. H., Yang, C. C., Shiau, J. Y., & Wang, H. H. (2006). The development of an employee satisfaction model for higher education. *The TQM Magazine*, 18(5), 484-500.

Chung, N.G. & Angeline, T. (2010). Does work engagement mediate the relationship between job resources and job performance of employees? *African Journal of Business Management*, 4(9), 1837-1843.

Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95(5), 834-848.

Demerouti E., Bakker, A. B., Nachreiner, F. & Schaufeli, W. B. (2001). The job demands–resources model of burnout. *Journal of Applied Psychology*, *86(3)*, 499–512.

Dorio, J. M., Bryant, R. H., & Allen, T. D. (2008). Work related outcomes of the work-family interface: Why organizations should care. In K. Korabik, D. S. Lero, & D. L. Whitehead (Eds.), *Handbook of work-family integration: Research, theory, and best practices* (pp. 157-176). London: Elsevier.

Eby, L. T., Casper, W. J., Lockwood, A., Bordeaux, C., & Brindley, A. (2005). Work and family research in IO/OB: Content analysis and review of the literature (1980-2002). *Journal of Vocational Behavior*, 66, 124-97.

Erez, A., & Judge, T. A. (2001). Relationship of core self-evaluations to goal setting, motivation and performance. *Journal of Applied Psychology*, 86(6), 1270-1279.

Eyupoglua, S. Z., & Saner, T. (2009). The relationship between job satisfaction and academic rank: A study of academicians in Northern Cyprus. *Procedia Social and Behavioral Sciences*, 1, 686–691.

Fisher, G. G., Bulger, C. A., & Smith, C. S. (2009). Beyond work and family: A measure of work/nonwork interference and enhancement. *Journal of Occupational Health Psychology*, 14(4), 441–456.

Fredrickson, B.L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218-226.

Fu, C.K., & Shaffer, M.A. (2001). The tug of work and family: Direct and indirect domain-specific determinants of work-family conflict. *Personnel Review*, 30 (5), 502-522.

Ghorpade, J., Lackritz, J., & Singh, G. (2007). Burnout and personality: Evidence from academia. *Journal of Career Assessment*, 15(2), 240-256. doi:10.1177/ 1069072706298156.

Gmelch, W. H., Wilke, P. K., & Lovrich, N. P. (1986). Dimensions of stress among university faculty: Factor-analytic results from a national study. *Research in Higher Education*, 24(3), 266-286.

Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of Management Review*, 31(1), 72-91.

Grzywacz, J. G., & Bass, B. L. (2003). Work, family, and mental health: Testing different models of work-family fit. *Journal of Marriage and Family*, 65(1), 248–261.

Gutek, B. A., Searle, S., & Klepa, L. (1991). Rational versus gender role explanations for work-family conflict. *Journal of Applied Psychology*, 76(4), 560-568.

Hair, J., Money, A., Page, M., & Samouel, P. (2007). *Research methods for business*. West Sussex: John Wiley & Sons.

Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43, 495-513. doi:10.1016/ j.jsp.2005.11.001

71

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Hakanen, J. J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behavior*, 73, 78-91.

Hallberg, U. E., Johansson, G., & Schaufeli, W. B. (2007). Type A behavior and work situation: Associations with burnout and work engagement. *Scandinavian Journal of Work, Environment and Health*, 48, 135-142.

Hallberg, U. E., & Schaufeli, W. B. (2006). "Same same" but different? Can work engagement be discriminated from job involvement and organizational commitment. *European Psychologist*, 11(2), 119-127.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513-524.

Joo, B.-K., Jeung, C.-W., & Yoon, H. J. (2010). Investigating the influences of core self-evaluations, job autonomy, and intrinsic motivation on in-role job performance. *Human Resource Development Quarterly*, 21(4), 353-371.

Judge, A. J., Bono, J. E., Erez, A., & Locke, E. A. (2005). Core self-evaluations and job and life satisfaction: The role of self- concordance and goal attainment. *Journal of Applied Psychology*, 90(2), 257-268.

Judge, T. A., Locke, E. A., & Durham, C. C. (1997). The dispositional causes of job satisfaction: A core evaluation approach. *Research in Organizational Behavior*, 19, 151-188.

Judge, T. A., Erez, A., & Bono, J. E. (1998). The power of being positive: The relation between positive self-concept and job performance. *Human Performance*, 11, 167-187.

Judge, T. A., Van Vianen, A. E. M., & De Pater, I. E. (2004). Emotional stability, core self-evaluations, and job outcomes: A review of the evidence and an agenda for future research. *Human Performance*, 17(3), 325-346.

Koyuncu, M., Burke, R. J., & Fiksenbaum, L. (2006). Work engagement among women managers and professionals in a Turkish bank: Potential antecedents and consequences. *Equal Opportunities International*, 25(4), 299-310.

Lackritz, J. R. (2004). Exploring burnout among university faculty: Incidence, performance, and demographic issues. *Teaching and Teacher Education*, 20, 713-729.

Langelaan, S., Bakker, A.B., Van Doornen, L.J.P. & Schaufeli, W.B. (2006). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences*, 40, 521-532.

Leiter, M. P., & Maslach, C. (2004). Areas of worklife: A structured approach to organizational predictors of job burnout. In P. L. Perrewe & D. C. Ganster (Eds.), *Research in occupational stress and well-being,* (Vol. 3, pp. 91-134). Oxford: Elsevier.

Luthans, F. (2002a). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, 23 (6), 695–706.

Luthans, F. (2002b). Positive organizational behavior (POB): Developing and managing psychological strengths. *Academy of Management Executive*, 16(1), 57-72.

Luthans, F., & Youssef, C. M. (2007). Emerging positive behavior. *Journal of Management*, 33(3), 321-49.

Lu, C. Q., Siu, O. L., Chen, W. Q., & Wang, H. J. (2011). Family mastery enhances work engagement in Chinese nurses: A cross lagged analysis. *Journal of Vocational Behavior*, 78, 100-109

Masuda, A. D., McNall, L. A., Allen, T. D., & Nicklin, J. M. (2012). Examining the constructs of work-to-family enrichment and positive spillover. *Journal of Vocational Behavior*, 80, 197–210.

Mauno, S., Kinnunen, U. & Roukolainen, M., (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior*, 70(1), 149-171.

McNall, L. A., Masuda, A. D., & Nicklin, J. M. (2010). A Meta-analytic review of the consequences associated with work–family enrichment. *Journal of Business Psychology*, 25, 381–396.

Montgomery, A. J., Peeters, M. C. W., Schaufeli, W. B., & Ouden, M. D. (2003). Work-home interference among newspaper managers: Its relationship with burnout and engagement. *Anxiety, Stress and Coping*, 16(2), 195-211.

Mostert, K., & Rathbone, A. D. (2007). Work characteristic, work-home interaction and engagement of employees in the mining industry. *Management Dynamics*, 16(2), 36-52.

Ng, S. F., Ahmad, A., & Omar, Z. (2014). Role of work-family enrichment in improving job satisfaction. *American Journal of Applied Sciences*, 11(1), 96-104.

72

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Pati, S. P., & Kumar, P. (2010). Employee engagement: Role of self-efficacy, organizational support & supervisor support. *The Indian Journal of Industrial Relations,* 46(1), 126-37.

Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903. doi:10.1037/0021-9010.88.5.879

Poelmans, S., Stepanova, O., & Masuda, A. (2008). Positive spillover between personal and professional life: Definitions, antecedents, consequences and strategies. In K. Korabik, D.S. Lero, & D. L. Whitehead (ed.), *Handbook of work-family integration: Research, theory, and best practices.* Amsterdam: Academic Press.

Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617-635

Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600-619. doi:10.1108/02683940610690169.

Rothman, S., & Joubert, J. H. M. (2007). Job demands, job resources, burnout and work engagement of managers at a platinum mine in the North West Province. *South Africa Business Management*, 38(3), 49-61.

Sawang, S. (2012). Is there an inverted U-shaped relationship between job demands and work engagement: The moderating role of social support? *International Journal of Manpower*, 33(2), 178-186.

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293-315,

Schaufeli., W. B., & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing clarity to the concept. In A. B. Bakker & M. P. Leiter (Eds.). *Work engagement: A handbook of essential theory and research* (pp.10-24). New York: Psychology Press.

Sekaran, U., & Bougie, R. (2009). *Research methods for business: A skill building approach* (5th ed.). West Sussex: John Wiley & Sons.

Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: A new look at the interface between nonwork and work. *Journal of Applied Psychology*, 88(3), 518-528.

Sonnentag, S., Dormann, C., & Deremouti, E. (2010). Not all days are created equal: The concept of state work engagement. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp.25-38). New York; Psychology Press.

Schaufeli, W. B., Salanovaa, M., González-Romá, V. G., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies,* 3, 71-92.

Schaufeli, W. B., & Salanova, M. (2011). Work engagement: On how to better catch a slippery concept. *European Journal of Work and Organizational Psychology*, 20(1), 39-46.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: an introduction. *American Psychologist*, 55, 5-14.

Shimazu, A., Schaufeli, W. B., Kosugi, S., Suzuki, A., Nashiwa, H., Kato, A., … Kitaoka-Higashiguchi, K. (2008). Work engagement in Japan: Development and validation of the Japanese version of the Utrecht Work Engagement Scale. *Applied Psychology: An International Review*, 57(3), 510-532.

Shimazu, A., Schaufeli, W. B., Kubota, K., & Kawakami, N. (2012). Do wokaholism and work engagement predict employee well-being and performance in opposite directions? *Industrial Health*, 50, 316-321.

Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Upper Saddle River, New Jersey: Pearson.

Towers Perrin (2008). *2008 Towers Perrin global workforce study*. Retrieved from http://www.towersperrin.com/tp/getwebcachedoc?webc=HRS/USA/2008/200802/ GWS_handout_web.pdf.

Wayne, J. H., Grzywacz, J. G., Carlson, D. S., & Kacmar, K. M. (2007). Work-family facilitation: A theoretical explanation nd model of primary antecedents and consequences. *Human Resource Management Review*, 17(1), 63-76.

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationship between job resources, personal resources and work engagement. *Journal of Vocational Behavior*, 74(3), 235-244.

73

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Xanthoupoulou, D., Bakker, A., & Fishbach, A. (2013). Work engagement among employees facing emotional demands: The role of personal resources. *Journal of Personnel Psychology*, 12(2), 74–84.

Xanthopoulou, D., Bakker, A. B., Kantas, A., & Demerouti, E. (2012). Measuring burnout and work engagement: Factor structure, invariance, and latent mean differences across Greece and the Netherlands. *International Journal of Business Science and Applied Management,* 7(2), 40-52.

Xanthopoulou, D., Bakker, A. B., Heuven, E., Demerouti, E., & Schaufeli, W. B. (2008). Working in the sky: A diary study on work engagement among flight attendants. *Journal of Occupational Health Psychology*, 13(4), 345–356. doi:10.1037/1076-8998.13.4.345

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business research methods* (8th ed.). Mason, Ohio: Cengage Learning.

74

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

A Preliminary Study on Pro-Environmental Behaviour among Faculty Members in a Malaysian Private University

Lok-Sin Kuar[a], Lee-Peng, Ng[b]

[a]*Faculty of Business & Finance,Universiti Tunku Abdul Rahman, Malaysia,*
email: kuarls@utar.edu.my
[a]*Faculty of Business & Finance,Universiti Tunku Abdul Rahman, Malaysia,*
email: nglp@utar.edu.my

Abstract

Present study involves a preliminary analysis to examine the pro-environmental behavior (PEB) in the workplace. This is in line with the increased concerns about environmental issues, such as pollution and climate change. In fact, this phenomenon has given pressure to the worldwide organizations to place more emphasis on environment sustainability strategy. In view of such development, it is imperative to gain more in-depth understanding on the factors influencing employees' PBE. This study employed quantitative analysis by conducting a survey on 90 faculty staff of a private university in Malaysia. Based on the findings of this study, there is no difference in PEB among male and female academic staff. However, environmental passion is found to be significantly correlated with PEB positively. It will be followed by discussions on the implication of study, limitations of study and recommendations for future research.

Keywords: pro-environmental behavior (PEB), gender, harmonious environmental passion.

Introduction

The environmental issue is one of the utmost concern topics worldwide today. Human activities are among the major factors that threaten the ecosystems and resulted to pollution   and climate change. Many organisations had responded to the call for conservation of natural resources and preserving the environment by promoting sustainable strategies. An organisation's sustainable strategy referred to deliberate actions to protect the environment, provide for the longevity of natural resources, maintain ecology support systems for future generations, and guard against ultimate endangerment of the planet (Thompson, Peteraf, Gamble, & Strickland III, 2014, p. 275). Moreover, there are increased pressures from the stakeholders for corporations to be more socially responsible.

Due to the increasing concern on global warming and depletion of natural resources and biodiversity, the world leaders are looking for ways to achieve sustainable growth. Though with improvement in technology such as more usage of renewable energy and inventions to reduce carbon dioxide emission, the gains from such improvement is not sufficient to offset the growth in consumption (Midden, Kaiser, & McCalley, 2007). Thus, there is a need to change the behaviour of human beings to be more environmentally friendly.

In general, there are two factors that influence the PEB of individuals, i.e., external and internal factors. External factors in general refer to economic, social and institutional factors such as income, socio-

75

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

economic characteristics which will influence the PEB of individuals. On the other hand, internal factors refer to psychological factors such as attitudes, beliefs and value systems of individuals which may influence their behaviours (Clark, Kotchen, & Moorea, 2003; Heyl, Díazy, & Cifuentes, 2013). Thus, the understanding of the motivators of PEB by individuals are crucial to policy makers to tackle the environmental problems that may need to involve change of behaviour of individuals (Clark, Kotchen, & Moorea, 2003).

This preliminary study aims to examine the influence of gender on pro-environmental behaviour. Despite similar studies can be found, but vast majority were conducted in the Western settings or in developed countries (Hunter, Hatch, & Johnson, 2004). Besides, this study also evaluating how individual's passion, specifically harmonious environment passion influence PEB.

Literature Review

Pro-environmental Behavior

PEB can be viewed as "environmentally responsible activities such as learning more about the environment, developing and applying ideas for reducing the company's environmental impact, developing green processes and products, recycling and reusing, and questioning practices that hurt the environment" (Graves, Sarkis, & Zhu, 2013). According to Krajhanzl (2010), PEB is "such behavior which is generally judged in the context of the considered society as a protective way of environmental behavior or a tribute to the healthy environment".
PEB includes recycling, conservation of water and electricity and to adopt green technology.

The initial model developed on PEB was linear progression model which explained how environmental knowledge affects the attitudes and then in turn the attitudes affect pro-environmental behaviour. This was proven to be faulty as there is a gap between knowledge and behaviour, one with environmental knowledge and attitudes may not have pro- environmental behaviour (Kollmuss & Agyeman, 2002). According to Ajzen and Fishbein (1983), attitudes will affect PEB via behavioural intentions. The subsequent models started to incorporate with external factors and become cross-disciplinary studies.

Gender and Pro-environmental Behaviour

Quite a number of studies that performed in the West, such as the United States found that female exhibited greater PEB than male (e.g. Dietz, Kalof, & Stern, 2002; Xiao & Dunlap, 2007; Zelezny, Chua, & Aldrich, 2000). The claims that females have higher tendency of PEB mainly are based on gender socialization theory (Hunter, Hatch, & Johnson, 2004; Zelezny, Chua, & Aldrich, 2000). Across culture, females are socialized to be more cooperative, interdependent, compassionate, helpful, and they are typically more expressive, in contrast males normally are more competitive and independent (Eagly, 1987). Nevertheless, findings on the influence of gender on PEB were less conclusive. For instance, Somma and Tolleson-Rinehart (1997) found that males show higher PEB than females.

Zelezny et al. (2000) extensively review the studies in between 1988 to 1998, they found that 9 out of 13 published papers reported that female are more actively participate in PEB than male, while the balance three studies showed no significant differences across gender. Besides, Zelezny et al. (2000) also conducted an empirical study among primary and secondary school students in California. Their findings supported the notion that females were more concern about environment and show higher PEB than male students. In another survey that involved cross countries comparison, Zelezny et al. (2000) found that female university students from 11 out of 14 countries in their study demonstrated higher PEB than males. These 11 countries include the United States, Canada, Argentina, Mexico, Paraguay, Spain, Venezuela, Costa Rica, Peru, El Salvador, and Peru. On the other hand, male participation in PEB was higher for students from Panama, Dominican Republic and Columbia. Nevertheless, for within country

76

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

analyses, Zelezny et al. (2000) only found significant differences between gender and PEB for samples from Paraguay and Venezuela. On the other hand, Cerda, García, Díaz, Nunez and Rojas (as cited in Heyl, Díaz, and Cifuentes, 2013) reported that there were no significant gender differences in environmental attitudes and pro-environmental behaviors.

Some studies distinguished between private PEB (e.g. recycling) and public PEB (e.g. protests). In another cross-national examination by Hunter et al. (2004) that involves the data from 22 countries, Hunter et al. (2004) concluded that women are more engaged in PEB than man generally, especially in private PEB. Meanwhile, no significant gender differences found for public PEB. Their analyses also revealed that gender differences in PEB were most obvious in countries with high gross national income per capital, such as Japan, the United States, Norway, Ireland, Australia, Canada, Italy, Germany, and the Netherlands. Philippines was the only South East Asia country that has been included in Hunter et al.'s (2004) analysis and no significant differences were found between gender and PEB. Recent research by Xiao and Hong (2010) showed that their results were coherent with those from Western countries, in which Chinese women were found to demonstrated greater private PEB, like recycling and no significant differences were found on those public PEB activities. Xiao and Hong (2010) also summarised the results of empirical studies that they obtained since 1995, they found that 20 out of 28 papers that examined private PEB indicated significant gender differences. Results from 18 out of 20 of these studies showed female exhibited higher private PEB than males while the other two studies were reverse. Majority supports no gender differences for public PEB (Xiao & Hong, 2010).

Harmonious Environmental Passion and Pro-environmental Behaviour

Vallerand et al.'s (2003) Dualistic Model of Passion explained two types of passions, namely obsessive passion and harmonious passion. In contrast to obsessive passion that often link to negative consequences, harmonious passion relate positively to psychological well-being and performance (Vallerand, Howlfort, & Forest, 2014). Obsessive passion results from a "controlled internalization process", in which a person engaged in an activity as they felt compelled to do so due to feelings of social acceptance or self-esteem. As the activity is not within one's control, it might result to conflict with other activities of a person life (Vallerand et al., 2003). Harmonious passion is described as "an autonomous internalization of the activity into the person's identity" (Vallerand et al., 2003, p. 757). Individuals with harmonious environmental passion have the freedom to engage in the activity that they loved, they are in control of the activity, and it is in harmony with other activities of an individual's life. As such, individuals with harmonious environmental passion will engage in the environmental friendly behaviour (Robertson & Barling, 2013).

Prior studies showed that harmonious environment passion promote positive emotion (Philippe, Vallerand, Houlfort, Lavigne, & Donahue, 2010), improve performance (Liu, Chen, & Yao, 2011), and create better relationship at work (Waugh & Frederickson, 2006). Robertson and Barling (2012) carried out a study among 225 undergraduate students in Canada. The students who participated in the survey worked as full time employee during summer. Results from their study showed that environmentally-specific transformational leadership and leaders' environment behavior are positively related to employees' harmonious environmental passion, which subsequently improved employees' environmental behavior.

Methodology

Sample and Respondents Profile

In this preliminary study, a total of 110 questionnaires were personally distributed to the academic staff of a private university, a total of 90 usable questionnaires have been returned, yielding 81.8% response rate. Table 1 shows the respondents' profile of the present study.

77

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Table 1
Respondents' Profile

		Frequency	Percent	Cumulative Percent
Gender	Male	42	46.7	46.7
	Female	48	53.3	100.0
Marital Status	Single	37	41.1	41.1
	Married	53	58.9	100.0
Age	20 - 25	4	4.4	4.4
	26 - 30	22	24.4	28.9
	31 - 35	29	32.2	61.1
	36 - 40	14	15.6	76.7
	41 - 45	9	10.0	86.7
	46 - 50	6	6.7	93.3
	51 - 55	2	2.2	95.6
	>55	4	4.4	100.0
Working Experience in current institution	<5 years	40	44.4	44.4
	5 - 10	45	50.0	94.4
	>10 years	5	5.6	100.0
Highest Education	Bachelor degree	6	6.7	6.7
	Master degree	76	84.4	91.1
	PhD or equilvalent	8	8.9	100.0

Among the respondents, majority of them are female (53.3%) in term of gender and married (58.9%) in term of marital status, serve the organisation between 5 -10 years (50.0%), and with master degree (84.4%). In term of age group, 32.2% of the respondents are between the age of 31 and 35 follow by 26 to 30 (24.4%) and 36 to 40 (15.6%).

Measurements

Pro-Environmental Behaviour
Pro-environmental behaviour (PEB) scales consist of nine items, adapted from Robertson and Barling (2013) and Heyl, Díaz, and Cifuentes (2013). All the items were measured on 5-point Likert scales and the response options range from never (1) to always (5). Sample items include "I print double sided whenever possible" and "I save water whenever I can".

Environmental Passion
There are nine times in the Environmental Passion scales which were adapted from Robertson and Barling (2013). All the items were measured on 5-point Likert scales ranged from strongly disagree (1) to strongly agree (5). Sample items include "I take pride in helping the environment" and "I have voluntarily donated time or money to help the environment in some way".

Analyses and Results

Data was analysed by using SPSS 16.0. Then, the study will use descriptive statistics to explain each variable and demographic factor. The t-test and Levene's test for equality of variances are used to analyse the difference in PEB for males and females. In addition, Pearson correlation is used to analyse the correlation between pro-environmental behaviour and environmental passion.

Table 2
Descriptive Statistics for Pro-Environmental Behaviour Items

		Mean	Std. Deviation	Min	Max
1	I print double sided whenever possible.	4.61	.55	3.00	5.00
2	I use recycled papers.	3.97	.98	2.00	5.00
3	For recyclable material (e.g. cans, paper, bottles, batteries), I put them in the recycling bins/send to recycle centre.	3.79	1.16	1.00	5.00
4	I bring reusable eating utensils to work (e.g. travel coffee mug, water bottle, reusable containers, reusable cutlery).	3.82	1.01	1.00	5.00
5	I turn lights off when I leave a room or there is enough natural light.	4.08	.90	2.00	5.00
6	I take part in environmentally friendly programs (e.g. ride bicycle/walk to work, car pool etc.).	3.11	1.05	1.00	5.00
7	I make suggestions about environmentally friendly practices to managers and/or environmental committees, in an effort to increase my organization's environmental performance.	3.08	1.06	1.00	5.00
8	I close the taps if the water is running.	4.63	.57	3.00	5.00
9	I save water whenever I can.	4.63	.53	3.00	5.00

Among the nine scales in Pro-environmental behaviour (PEB), "close the taps if the water is running", "save water whenever I can", and "print double sided whenever possible" are the three most common behaviour among the respondents with the average Likert scale of 4.61 to 4.63 (which is skewed towards strongly agree).

The other behaviour that participants practise are "turn lights off when I leave a room or there is enough natural light", "bring reusable eating utensils to work", "put recyclable materials in the recycling bins/send to recycle centre" of which the average Likert scale ranged from 3.82 to 4.08 (which is skewed towards agree).

The one that received neutral responses are items related to taking part in environmentally friendly programs and making suggestions about environmentally friendly practices to managers and/or environmental committee.

Table 3

Group Statistics

	Gender	N	Mean	Std. Deviation
PEB	Male	42	3.9471	.46964
	Female	48	3.9884	.44929

Table 4
Independent Sample t-test on Gender and Pro-environmental Behaviour

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	
PEB	Equal variances assumed	.490	.486	-.426	88	.671	-.04134	
	Equal variances not assumed			-.425	85.262	.672	-.04134	

In order to examine whether there is difference in pro-environmental behaviour among male and female academic staff in this study, independent sample t-test was employed. Table 4 displays the Levene's test for equality of variances (F = 0.49, p = 0.486 > 0.05), this means that equal variances are assumed. Based on the t-test (t = -0.426, df = 88, p = 0.671 > 0.05), gender does not significantly affect pro-environmental behavior. Table 4 shows that means for pro-environmental behaivour of both groups are about the same (Mean$_{female}$ = 3.99, Mean$_{male}$ = 3.94).

Table 5
Descriptive Statistics: Mean for male and female and PEB items

		Mean (Male)	Mean (Female)
		n = 42	n = 48
1	I print double sided whenever possible.	4.55	4.67
2	I use recycled papers.	3.95	3.98
3	For recyclable material (e.g. cans, paper, bottles, batteries), I put them in the recycling bins/send to recycle centre.	3.71	3.85
4	I bring reusable eating utensils to work (e.g. travel coffee mug, water bottle, reusable containers, reusable cutlery).	3.62	4.00
5	I turn lights off when I leave a room or there is enough natural light.	4.10	4.06
6	I take part in environmentally friendly programs (e.g. ride bicycle/walk to work, car pool etc.).	3.10	3.13
7	I make suggestions about environmentally friendly practices to managers and/or environmental committees, in an effort to increase my organization's environmental performance.	3.17	3.00
8	I close the taps if the water is running.	4.64	4.63

Table 5 presents the mean for male and female in POB. In general, there is not much difference between the average value between male and female in POB. Among the 8 PEB items, the only item which show

greater difference is that female are found to be more likely to bring their own reusable eating utensils to work as compared to male.

Table 6
Pearson Correlation Analysis between Pro-environmental behaviour and environmental passion

		HarmoniousEnvironmental Passion
Pro-environmental behavior	r	0.522
	p-value	0.0001

Note. N = 90, r = Pearson correlation

Pearson correlations analysis result as presented in Table 5 showed that environmental passion is significantly correlated with PEB in positive direction (r = 0.522, p = 0.0001). Employees will more frequently engage in PEB if they have greater harmonious environment.

Discussion, Limitations and Conclusion

In this preliminary study, there is no significant difference between gender and overall PEB. Neither private nor public PEB were influenced by gender. In view of the mixed findings in the previous study, the results of the present result are not entirely surprising. However, the sample size used in this preliminary study is relatively small (n = 90), thus generalisation of the findings to the whole population will require a larger sample size for future research.

The significance correlation between harmonious environmental passion and PEB is consistent with the theory put forward by Vallerand et al. and further support the prior empirical findings by Robertson and Barling (2013). Since harmonious environment passion plays an important role in enhancing PEB, the management of the university can encourage more green work environment practices to nurture harmonious environmental passion.

Besides, the measurement for PEB can be further refined to cover different components of private PEB as well as public PEB more specifically. Current analysis just examined on two factors that might influence PEB, future research need to incorporate more variables in predicting PEB, such as organisational green climate and personality variables.

References

Agyeman, J., & Angus, B. (2003). The role of civic environmentalism in the pursuit of sustainable communities. *Journal of Environmental Planning and Management*, 46(3), 345-363.

Clark, C. F., Kotchen, M. J., & Moorea, M. R. (2003). Internal and external influences on pro-environmental behavior: Participation in a green electricity program. *Journal of Environmental Psychology*, 23, 237–246.

Dietz, T., Kalof, L., & Stern, P. C. (2002). Gender, values, and environmentalism. *Social Science Quarterly, 83*, 353-364.

Eagly, A. (1987). *Gender differences in social behavior: A social role interpretation.* Hillsdale, NJ: Lawrence Erlbaum.

Graves, L. M., Sarkis, J., & Zhu, Q. (2013). How transformational leadership and employee motivation combine to predict employee proenvironmental behaviors in China. *Journal of Environmental Psychology*, 35, 81-91.

Heyl, M., Díazy, E. M., & Cifuentes, L. (2000). Environmental attitudes and behaviors of college students: A case study at a Chilean University. *Revista Latinoamericana de Psicología*, 45(3), 489-502.

Hunter, L. M., Hatch, A., & Johnson, A. (2004). Cross-national gender variation in environmental behaviors. *Social Science Quarterly*, 85(3), 677-694.

81

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Kollmuss, A., & Agyeman, J. (2002). Mind the Gap: Why do people act environmentally and what are the barriers to proenvironmental behavior? *Environmental Education Research*, 8(3), 239-260.

Krajhanzl, J. (2010). Environmental and proenvironmental behavior. *School and Health*, 21, 251-274.

Liu, D., Chen, X.-P., & Yao, X. 2011. From autonomy to creativity: A multilevel investigation of the mediating role of harmonious passion. *Journal of Applied Psychology*, 96(2), 294-309.

Midden, C. J. H., Kaiser, F. G., & McCalley, T. (2007). Technology's four roles in understanding individuals' conservation of natural resources. *Journal of Social Issues*, 63(1), 155–174.

Philippe, F. L., Vallerand , R. J., Houlfort, N., Lavigne, G. L.,& Donahue, E. G. (2010). Passion for an activity and quality of interpersonal relationships: the mediating role of emotions. J*ournal of Personality and Social Psychology*, 98(6), 917- 932.

Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders' influence on employees' pro-environmental behaviors. *Journal of Organizational Behavior*, 34, 176-194.

Somma, M., & Tolleson-Rinehart, S. (1997). Tracking the elusive green women. *Political Research Quarterly*, 50, 153-169.

Tate, K., Stewart, A. J., & Daly, M. (2014). Influencing green behaviour through environmental goal priming: The mediating role of automatic evaluation. *Journal of Environmental Psychology*, 38, 225–232.

Thompson, A., Peteraf, M., Gamble, J., & Strickland III, A. J. (2014) *Crafting and executing strategy: The quest of competitive advantage: Concepts and cases* (19th ed.). McGraw-Hill Irwin: New York.

Vallerand, R. J., Blanchard, C., Mageau, G. A., Koestner, R., Ratelle, C. F., Le´onard, M., & Gagné, M. (2003). Les passions de l'aˆme: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, 85, 756–767.

Waugh, C. E., & Frederickson, B. L. (2006). Nice to know you: Positive emotions, self–other overlap, and complex understanding in the formation of a new relationship. *Journal of Positive Psychology*, 1(2), 93–106.

Xiao, C., & Dunlap, R. E. (2007). Validating a comprehensive model of environmental concern cross-nationally. *Social Science Quarterly, 88*, 471-493.

Zelezny, L. C., Chua, P.-P., & Aldrich, C. (2000). Elaborating on gender differences in environmentalism. *Journal of Social Issues, 56*, 443-457.

Vallerand, R. J., Howlfort, N. & Forest, J. (2014). Passion of work: Determinants and outcomes. In Gagné, M. (Eds.). *The Oxford handbook of work engagement, motivation, and self-determination theory* (pp. 85 – 108). Oxford: Oxford University Press.

82

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Which Personality Traits Make a Better Lawyer? One that is '*Deceptive, Ruthless and Aggressive*' or one that is '*Honest, Friendly, and Calm*?

Julian Teh[a], Shwu-Shing Ng[b], Yong-Hooi Lim[b], Yen-San Yip[d], Tun-Pin Chong[e]
Kee-Luen Wong[f]

[a]*UTAR, Malaysia, tehhl@utar.edu.my*
[c]*UTAR, Malaysia, nsshing@utar.edu.my*
[c]*UTAR, Malaysia, limyh@utar.edu.my*
[d]*UTAR, Malaysia, yipys@utar.edu.my*
[e]*UTAR, Malaysia, chongtp@utar.edu.my*
[f]*UTAR, Malaysia, wongkl@utar.edu.my*

Abstract

A common stereotype of a successful lawyer often portrayed in the minds of the public is that of an individual that is deceptive, ruthless, and aggressive, and will stop at nothing to crush the competition. This stereotype is often reinforced by both the mass media and non-academic literature. In contrast, organizational behavior literature proposes that individuals with personality facets such as Honesty, Friendliness, and Cooperativeness (high Agreeableness) and Calmness, Even-temperedness (low Neuroticism) perform better at their jobs. At first glance, although these previous studies appear to contradict the common stereotype, the majority of these studies were actually conducted on individuals not exclusively working in the legal profession (e.g. doctors, accountants, police, engineers, clerks). The core of a successful lawyer is the art of refined 'argument', and whether it is best done in an 'honest and diplomatic' way, or in a 'deceptive and ruthless' way remains to be tested, due to the scarcity of literature in this area. The current study therefore fills this gap, by examining the influence of personality traits on job performance in the legal profession in Malaysia. Personality traits of 219 lawyers were obtained, and their job performance evaluated by a credible source (e.g. peers, subordinates, clients.). Results indicate that lawyers high on Agreeableness (honest, friendly) were more successful, as they were perceived by the judges and jurors as being more credible, trustworthy and diplomatic in court. Lawyers low on Neuroticism were perceived as being more civil and professional. Is line with literature, highly Conscientious lawyers performed better than their lower Conscientious counterparts. Surprisingly, neither Extroverted nor Introverted lawyers performed better than the other, indicating the complex demands of the legal profession as needing both front-end and back-end requirements.

Keywords: Organizational Behavior, Personality, Performance, Legal profession, Stereotype.

Introduction

Accoring to Toothman (2013) the common stereotype of a successful lawyer often portrayed in the minds of the public is that of an individual that is deceptive, greedy, ruthless, and aggressive, and will stop at nothing to crush the competition. This stereotype is often reinforced by both the mass media and non-academic literature. In contrast, organizational behavior literature (Barrick & Mount, 1991) proposes that individuals with personality facets such as Honesty, Friendliness, and Cooperativeness (high Agreeableness) and Calmness, Even-temperedness (low Neuroticism) perform better at their jobs. At first glance, although these previous studies appear to contradict the common stereotype, the majority of these studies were actually conducted on individuals not exclusively working in the legal profession (e.g. doctors, accountants, police, engineers, clerks). The core of a successful lawyer is the art of refined 'argument', and whether it is best done in an 'honest and diplomatic' way, or in a 'deceptive and ruthless'

way remains to be tested, due to the scarcity of literature in this area (Alvey, 2007; Schneider, 2007). The current study therefore fills this important gap, by examining the influence of personality traits on job performance in the legal profession in Malaysia (Schneider, 2007).
.

Literature Review

Although human behaviour is sometimes dynamic and unpredictable, personality traits within an individual are relatively stable over time (Cartel, 1943; Costa & McCrae, 1995; Gelso & Fassinger, 1992). Thus, for those working in the legal profession, personality definitely influences how these lawyers interacts with the judge, jury, clients, and other important stakeholders (Alvey, 2007; Schneider, 2007). Generally, personality scholars utilize a five factor model of human personality, known as the *Big Five Model* (Costa & McCrae, 1995; Goldberg et. al., 2006). The Big Five is a good representation of the human personality as it has been validated numerous times across different researchers, and is generalizable across different cultures and countries. Furthermore, the Big Five is the result of statistical, rather than theoretical or experimental research. Due to the strong evidence in favor of the Big Five model, there is consensus among personality scholars that the Big Five adequately represents the major dimensions of human personality (Barrick & Mount, 1991; Costa & McCrae, 1995; Goldberg et al., 2006; Judge & Bono, 2000).

*Conscientiousness r*epresents the tendency of an individual to be hardworking, reliable, self-disciplined (Costa & McCrae, 1995), dutiful, achievement-oriented (Goldberg et al., 2006; Judge & Bono, 2000), and persevering in the face of challenges (Barrick & Mount, 1991). *Agreeableness* represents the tendency of an individual to be friendly, caring understanding (Costa & McCrae, 1995), kind, trustworthy, warm (Goldberg et al., 2006; Judge & Bono, 2000), courteous, good natured, and cooperative (Barrick & Mount, 1991). *Emotional stability* is the tendency of an individual to be calm, relaxed, contented, restrained, and emotionally steadfast. The opposite pole of Emotional Stability is Neuroticism, which is the tendency of an individual to experience negative emotions such as anxiety, depression, anger, irritability, embarrassment, worry, moodiness, and insecurity (Barrick & Mount, 1991; Costa & McCrae, 1995; Goldberg et al., 2006; Judge & Bono, 2000). *Extraversion* represents the tendency of an individual to be outgoing, confident (Judge & Bono, 2000), sociable, talkative, active (Goldberg et al., 2006) expressive, taking initiatives, (Barrick & Mount, 1991), optimistic, and having good interpersonal skills (Costa & McCrae, 1995). *Openness to experience* is associated with individuals who are creative, imaginative, (Goldberg et al., 2006; Judge & Bono, 2000), curious, broadminded, artistically sensitive (Barrick & Mount, 1991) and intelligent (Costa & McCrae, 1995).

Conscientious individuals perform better at work, regardless of the type of job performed (Judge et. al., 1999; Tett et. al., 1991). These findings have been validated numerous times in various studies (Barrick & Mount, 1991; Barrick, Mount & Strauss, 1993; Hurtz & Donovan, 2000; Vinchur et al., 1998) with the exception of studies conducted on the legal profession. Irrespective of job, conscientious individuals perform better as they are self-disciplined, dutiful, and always strive hard towards achievement. Conscientiousness individual's are also hardworking, reliable, self-disciplined (Costa & McCrae, 1995), dutiful (Goldberg et al., 2006; Judge & Bono, 2000), and persevere in the face of adversity (Barrick & Mount, 1991). Hence, it is proposed that:

Hypothesis 1: The 'Conscientious' personality trait is positively related to the 'performance' of lawyers in Malaysia.

For jobs that require a high degree of social interaction, agreeable individuals are more likely to display a pleasant disposition towards others. According to Hurley (1998), agreeableness was found to be a valid predictor of performance in jobs requiring a lot of social interaction. Pertaining to the current study, lawyers that are perceived as being trustworthy, warm, courteous, good natured, friendly, and patient when interacting with clients, judges, jurors, and the public would be beneficial (Barrick & Mount, 1991; Costa & McCrae, 1995; Goldberg et al., 2006; Judge & Bono, 2000). Hence, it is proposed that:

Hypothesis 2: 'Agreeableness' is positively related to the 'performance' of lawyers in Malaysia.

84

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Individuals having lower *emotional stability* (i.e. higher neuroticism) are more likely to get angry, be aggressive, violent, irritable, grouchy, and moody at work (Barrick & Mount, 1991; Costa & McCrae, 1995; Goldberg et al., 2006; Hurtz & Donovan, 2000; Judge & Bono, 2000). In the legal profession, this is deemed to be detrimental to work performance. In contrast, those with higher emotional stability (i.e. lower neuroticism) are deemed to perform better as they are calm and composed when facing important stakeholders such as the judges, jury, clients, and behave more professionally both in and out of the courtroom**.** Hence, it is proposed that:

Hypothesis 3: 'Emotional Stability' is positively related to the 'performance' of lawyers in Malaysia.

Extraverted individuals perform better at work that requires a high degree of social interaction (Barrick & Mount, 1991; Hurley, 1998; Vinchur et al., 1998). These findings were replicated in a longitudinal study by Judge et. al. (1999) that examined the behavior of extraverts in social settings. Extraverted individuals are more talkative in social settings (Judge & Bono, 2000), sociable (Goldberg et al., 2006) expressive, (Barrick & Mount, 1991), optimistic, and have good interpersonal skills when dealing with important stakeholders in the legal environment (Costa & McCrae, 1995). Hence, it is proposed that:

Hypothesis 4: 'Extraversion' is positively related to the 'performance' of lawyers in Malaysia.

Openness to experience was found to be a valid predictor of performance for jobs that required analytical thinking and learning (Barrick & Mount, 1991, Tett, et. al., (1991)*.* Additionally, there appears to be a general consensus among researchers that 'Openness to Experience' is a valid predictor of 'training receptivity', which is one of the sub-facets of 'job performance' (Barrick & Mount, 1991) In line with Schneider (2007) lawyers need to devise creative strategies and loopholes to win cases for their clients. Hence, it is proposed that:

Hypothesis 5: 'Openness to experience' is positively related to the 'performance' of lawyers in Malaysia.

As illustrated in Figure 1, the hypothesized relationship between personality and performance is as follows.
 Figure 1. Proposed Conceptual Framework.

Method

Participants
A total of 219 attorneys (137 males, 82 females) working in Selangor and Perak participated in this study.

Personality instrument
Personality was assessed using the *International Personality Item Pool* (IPIP; Goldberg et al., 2006). The IPIP measures each personality dimension with 10-items, using a 5-point scale (1 = *very inaccurate*, 5 = *very accurate*). The IPIP was selected due to its high internal reliability (Zyphur, Bradley, Landis, & Thoresen, 2008).

Work Performance instrument
Work performance was measured using the *Role Base Performance Scale* (RBPS) developed by Welbourne, Johnson, and Erez (1998). The RBPS measures work performance by how well certain roles are performed at work. The RBPS has a total of 20-items, each along a 5-point scale (1 = *needs much improvement*, 5 = *excellent*).

Data Analysis method
The current study examines the main effects of personality on performance, thus a regression analysis will be conducted using SPSS version 17.

85

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

Results

Descriptive statistics and correlation analysis

Table 1 shows the mean, standard deviation, and correlations among the variables in the study. Lawyer's performance appeared to be significantly and positively correlated with three of the five personality dimensions, namely Conscientiousness (r =.58), Emotional stability (r =.55), and Agreeableness (r =.21).

Table 1. Means, Standard Deviation, Correlations, and Cronbach's Alpha

Variables	M	S.D	Perf.	Cons.	Emo.	Open.	Agre.	Extro
Performance	2.71	1.04	(.85)	.58	.55	.04	.21	.09
Conscientiousness	2.45	1.92	.58	(.88)	.06	.41	.27	.19
Emo Stability	2.66	0.99	.55	.06	(.79)	.23	.34	.32
Openness to experience	2.91	0.70	.04	.41	.27	(.72)	.55	.24
Agreeableness	2.23	1.94	.21	.23	.34	.55	(.84)	.01
Extroversion	1.98	1.11	.09	.19	.32	.24	.01	(.77)

Note: N = 219. Values in (parentheses) represent coefficient alphas.

With reference to Table 2, personality accounted for more than *half* of the total variation of in performance among lawyers (R^2 = .547, p < 0.001).

Table 2. Regression Analysis of Personality on Performance

	Sales Performance		
	R^2	Adjusted R^2	Sig. of R^2
Personality traits:			
Conscientiousness			
Emotional Stability			
Openness to experience			
Agreeableness			
Extraversion	.547	.537	.000***

Note: N = 219. *; p < 0.05. ***; p < 0.001.

With reference to table 3, it is observed that three of the five personality dimensions (e.g. Conscientiousness, Emotional Stability, and Agreeableness) were valid predictors of performance of lawyers in Malaysia. As a result, hypothesis 1, 2 and 3 of the current study were supported, whereas hypothesis 4 and 5 were not.

Table 3. Coefficient table of Personality on Performance

	Unstandardized coefficients	Standardized coefficients	Sig.
(Intercept)	.327		.279
Conscientiousness	.491	.460	.000***
Emotional Stability	.566	.492	.000***
Openness to experience	.047	.042	.370
Agreeableness	.241	.183	.000***
Extraversion	.129	.084	.071

Dependent Variable: Performance
Note: N = 219. *; p < 0.05. **; p < 0.01.***; p < 0.001.

Discussion and Implications

Results indicate that lawyers high on Agreeableness (honest, friendly) were more successful, as they were perceived by the judges and jurors as being more credible, trustworthy and diplomatic in court. Lawyers high on Emotional Stability were also perceived as being more civil and professional. Is line with literature, highly Conscientious lawyers also performed better than their lower Conscientious counterparts. Surprisingly, neither Extroverted nor Introverted lawyers performed better than the other, indicating the complex demands of the legal profession as needing both front-end and back-end requirements. In other words, extroverted and introverted lawyers would be equally successful in the workplace, as they have

different strengths to fit front-end and back-end jobs of a lawyer. Personality as a whole also accounted for more than half of the total variation in performance among lawyers (R^2 = .547, p < 0.001), indicating the importance of personality the single largest predictor of human behavior.

This study therefore puts the contention of a lawyers personality at ease, whereby it refutes the common stereotype portrayed by the media that a successful lawyer is deceptive, ruthless, and greedy. As part of the contributions of this study, it is supported via empirical evidence that in a Malaysian context, personality is indeed a valid predictor of job performance albeit unlike the media stereotype. The findings of the current study would serve as a yardstick for academicians and practitioners alike for a more localized interpretation of the link between personality and job performance among successful lawyers in Malaysia.

The current study is not without its share of limitations. Firstly, the respondents surveyed were in Selangor and Perak only. Thus caution should be exercised prior to generalizing the result to other states in the country. It is therefore recommended for future researchers to conduct similar studies in other states in Malaysia to replicate the findings of the study.

Conclusion

In a nutshell, the current study breaks the common media stereotype that a successful lawyer shuld be deceptive, greedy and ruthless. Lawyers that were honest, friendly, patient and calm were perceived by the judges and jurors as being more credible, trustworthy, diplomatic and professional both in and out of the courtroom. Neither Extroverted nor Introverted lawyers performed better than the other, indicating the complex demands of the legal profession as needing both front-end and back-end tasks.

References

Alvey, J. (2007). *The Lawyer Personality*. Retrieved 20 April 2014 from http://leavinglaw.wordpress.com/2007/11/27/the-lawyer-personality/

Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, *44*, 1-26

Barrick, M. R., Mount, M. K., & Strauss, J. P. (1993). Conscientiousness and performance of sales representatives: Test of the mediating effects of goal setting. *Journal of Applied Psychology, 78,* 715–722.

Cattell, R. B. (1943). The description of personality: Basic traits resolved into clusters. *Journal of Abnormal and Social Psychology*, *38*, 476-506.

Costa, P. T. & McCrae, R. R (1995). Solid Ground in the Wetlands of Personality: A Reply to Block. *Journal of Personality and Social Psychology*, *117*, 216-220.

Garcia, M. M., & Annabi, H. (2002). Customer knowledge management. *Journal of the Operational Research Society*, *53*, 875–884.

Gelso, C. J. & Fassinger, R. E. (1992). Personality, Development, and Counseling Psychology: Depth, Ambivalence, and Actualization. *Journal of Counseling Psychology*, 39(3), 275-298.

Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. C. (2006). The International Personality Item Pool and the future of public- domain personality measures. *Journal of Research in Personality*, *40*, 84-96.

Hult, G. T., Cravens, D. W., & Sheth, J. (2001). Competitive advantage in the global marketplace: a focus on marketing strategy. *Journal of Business Research*, *51*, 1-3.

Hurley, R. F. (1998). Customer service behavior in retail settings: A study of the effect of service provider personality. *Academy of Marketing Science Journal*, *26*(2), 115-127.

Hurtz, G. M., Donovan, J. J. (2000). Personality and performance: The big five revisited. *Journal of Applied Psychology*, *85*(6), 869-879.

Judge, T. A. & Bono, J.E. (2000). Five-factor model of personality and transformational leadership. *Journal of Applied Psychology*, *85*(5), 751-765.

Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The big five personality traits, general mental ability, and career success across the life span. *Personnel Psychology*, *52*, 621-654.

Kaliappan, S. R., Alavi, R., Abdullah, K., & Zakaullah, M. A. (2008). Spillover effects of foreign hypermarkets on domestic suppliers in Malaysia. *International Journal of Retail and Distribution Management*, *37*(3), 226-249.

Piercy, N. F. (2006). The Strategic Sales Organization. *The Marketing Review*, *6*, 3-28.

Ramayah, T. & Yeap, J. A. L. (2003). *What drives relationship quality? A study of two retail clothing stores.* The Proceedings of the 5th Asian Academy of Management Conference, " Challenges of Globalized Business: The Asian Perspective ", 10-13 September 2003, Hyatt Hotel, Kuantan, Pahang, Malaysia.

Schneider, A. K. (2007). Cooperating or Caving in: Are Defense Attorneys Shrewd or Exploited in Plea Bargaining Negotiations? *Marquette Law Review,* 1-91.

Taylor, R. K. (2000). Marketing strategies: Gaining a competitive advantage through the use of emotion. *Competitiveness Review*, *10*(2), 146-152.

Tett, R. P., Jackson, D. N., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. *Personnel Psychology*, *44*, 703-744.

Toothman, J. W. (2013). *Typical Lawyer: Professor challenges "greedy lawyer" stereotype*. Retrieved 20 April 2014 from http://blog.civiliansguidetolawyers.com/2013/11/19/typical-lawyer-professor-challenges-greedy-lawyer-stereotype/

Vinchur, A. J., Schippmann, J. S., Switzer, F. S., & Roth, P. L. (1998). *Journal of Applied Psychology*, *83*(4), 586-597.

Welbourne, T. M,. Johnson, D.E., & Erez, A. (1998). The role-based performance scale: Validity analysis of a theory-based structure. *Academy of Management Journal*, *41*(5), 540-555.

Zyphur, M. J., Bradley, J. C., Landis, R. S., & Thoresen, C. J. (2008). The effects of cognitive ability and conscientiousness on performance over time: A censored latent growth model. *Human Performance*, *21*, 1-27.

89

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

Balancing Work and Family Life:
The Role of Intercultural Communication Competence

Hooi-Ching Khor[a], Azura Abdullah Effendi[b]

[a]*Universiti Tunku Abdul Rahman (UTAR), Universiti Sains Malaysia (USM), Malaysia,*
khorhc@utar.edu.my
[b]*Universiti Sains Malaysia (USM), Malaysia, azura_e@usm.my*

Abstract

Work and family are two major domains in one's life. Juggling multiple role responsibilities in work and family lives is challenging. *Segmentation* and *integration* of work and family lives are the strategies often used as ways to create balance of work and family lives. Although research on work-family interface has been attempted over the decades, however, very little empirical research has tackled the issue from the communication perspective. Despite both segmentation and integration are proven effective in achieving work-family balance, limited attention were given to how both strategies take place and how one can successfully implement both strategies in prior research. In addition, the lack of attention on communication perspective in work-family balance research is due to researchers' conceptualization of work-family balance that often refer to satisfaction, equality in both life domains, and less negative influence from a life domain to another life domain rather than within communication perspective that was conceptualized by Grzywacz and Carlson (2007). This conceptual paper is to bring the attention of employers, policy makers, immediate superiors, and job incumbents the importance of communication across borders and their communication competence in general and intercultural communication competence specifically as personal resource in creating the work-family balance. Future directions and implications of work-family research in respect of global issues are also included in the discussion.

Keywords: Communication competence, intercultural communication competence, problem solving, work-family balance

Introduction

The mobility of workforce due to international assignments have led to the change of composition of workforce which diverse workforce is formed with members from the nationals with distinctive values and priority in their work and family lives (Aryee, Fields, & Luk, 1999; Jeffrey Hill, Yang, Hawkins, & Ferris, 2004; Waxin, 2004). The international assignments and growing proportion of dual-earner family in global workforce have led to the challenges of expatriates in juggling their work and family lives (Grant-Vallone, & Ensher, 2001; Jeffrey Hill, Yang, Hawkins, & Ferris, 2004; Lazarova, Westman, & Shaffer, 2010). The challenges are also placed on multinational corporations' policy makers for designing work-family policy that fit to the employees from diverse culture and the implementer of work-family policy to grant the work-family benefits appropriately to subordinates who have different needs and preferences in diverse culture.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

90

Despite work-family policy exists in organizations, however, it may not necessarily be accepted as legitimate or reinforced as the written one (Kirby & Krone, 2002). One may face peer pressure, for instance, receive peer complain of picking up the slack for those who using the policy. Thus, one may choose to use or refuse to use the policy. To grant the use of the policy is also hinge on the superior discretionary. Managerial messages have a significant impact on the actual use of work-family programs (Kirby, 2000). The aforementioned obstacles from co-workers and superior as well as the communication ineffectiveness due to cultural differences especially in the multinational corporations with cultural diversity workforce may lead to one's work-family conflict remains unsolved as they choose not to utilize the benefits of the work-family policy despite the policy available to them.

The intercultural communication competence is viewed as important personal resource which is overlooked in work-family literature despite there are numbers of qualitative studies exhibit the importance of communication in work and family life boundary management. The role of intercultural communication competence is crucial in dealing with the following questions for achieving work-family balances. How could organizational supports warrant the employees' work-family balance in cultural differences context? How could multinational corporations better tracking the needs and retain the cultural diversity workforce? How could expatriates manage to utilize the work-family benefits available in the workplace and create work-family balance when they work in host country? Future directions and implications of work-family research in respect of global issues are also included in the discussion.

Literature Review

Work-Family Balance

Work-family balance has been defined distinctively by work-family scholars in either individual or social context. Work-family balance is initially viewed by Frone (2003) as a state in which individuals experience less conflict while enjoying greater facilitation in their work and family lives. Voydanoff (2005) conceptualizes work-family balance as effectiveness of one's domain of life resources meet the other domain of life demands for bidirectional work and family domains. According to Valcour (2007), the perception of balance is based on the one's self appraisal in respect of work-family lives' effectiveness and the satisfaction with their work and family lives. Greenhaus and Allen (in press) define work-family balance as "an overall appraisal of the extent to which individuals' effectiveness and satisfaction in work and family roles are consistent with their life values at a given point in time." (as cited in Maertz & Boyar, 2011). The aforementioned definitions are developed based on individual context and reflect the individual cognitive and affective state rather than consider those close related parties such as supervisor, coworkers and family members whom they deal with in their daily life and they are important sources for achieving work-family balance.

Grzywacz and Carlson (2007) define work-family balance as "accomplishment of role-related expectations that are negotiated and shared between an individual and his/her role-related partners in the work and family domains." The definition is derived from social context and is considered truly reflects the balance between work and family life which is embedded the complexity and dynamic of the daily work and family life experienced by individuals who should not be separated from the social context (Carlson, Grzywacz & Zivnuska, 2009) as individuals have identities formation as member of the society and play multiple roles in their life in social system (Hobfoll, Freedy, Lane, & Geller, 1990). The definition offered is firmly grounded as the concern of those working adults who have desire to engage in both the personal and professional lives is embedded in the definition. Effective management of work and family lives contribute to the attitudinal, work performance and well-being such as job satisfaction (Anderson, Coffey, & Byerly, 2002; Aryee, Srinivas, & Tan, 2005; Saltzsstein, Ting, & Saltstein, 2001), quality of life (Greenhaus, Collins, & Shaw, 2003), and organizational commitment (Aryee, Srinivas, & Tan, 2005). Failure to manage work-family balance will leads to deleterious effect such as turnover intentions (Anderson, Coffey, & Byerly, 2002), stress (Anderson, Coffey, & Byerly, 2002), absenteeism (Anderson, Coffey, & Byerly, 2002) and lack of proficiency in completing tasks as well as task avoidance (Shaffer, & Joplin, 2001) which affect the company performance.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

91

Researchers often view absence or lower work-family conflict is equivalent to better work-family balance in researches over decades. Prior intercultural studies indicated that work-family conflict has different effects on employees' well being and other outcome (Aryee, Fields, & Luk, 1999; Jeffrey Hill, Yang, Hawkins, & Ferris, 2004). Work-to-family conflict was found primarily influence the life satisfaction of Hong Kong employees while family-to-work conflict was primarily influence American employees' life satisfaction in Aryee, Fields and Luk's (1999). In Jeffrey Hill, Yang, Hawkins, & Ferris's (2004) cross-cultural model, family-work conflict has been found the weakest influence on to work-family conflict while the strongest for the influence of work-family conflict on family-work conflict for the East. Besides, the study also reported that the job workload has much stronger effect in the three Western groups than in the East in relation to work-family conflict.

Work and family studies' researchers have initiated attempts over the decades to help employees to be capable in meeting their work and family role responsibilities so that they can continue their tenure with the companies they attached with as it contributes to the company performance. Prior researches provide support the work-family policy as useful tool for alleviating work-family conflict and improve work-family balance. Work-family policy includes schedule flexibility in the sample of academic staffs within higher education institutions in U.K. (Kinman & Jones, 2008), family-friendly policy in the sample of respondents with diverse background in U.S. and managerial personnel in New Zealand (Frye & Breaugh, 2004; O' Driscoll, Poelmans, Spector, Kalliath, Allen, Cooper, & Sanchez, 2003), and flexible work arrangements such as flextime and telework in U.S. sample (Sukal, 2009) was found significantly reduce work-family conflict. Despite of the aforementioned findings support the influence of work-family policy on work-family conflict, the influence is inconclusive. The policy have found insignificant in studies conducted by Luk and Shaffer (2005) pertaining to the effect of family-friendly among Hong Kong employees, and Behson's (2005) study on the effect of schedule flexibility and work-family benefit availability on work-family conflict among working adults from various occupations in U.S. This shows that work-family policy may not be necessary beneficial to employees in dealing with the balancing of their work and family lives. Further study is needed to provide valuable insight upon the existence of work-family policy, how to make the policy in use and have positive effect required for work and family interface, and the importance of human competence to make the work-family policy feasible and effective, and the human competence helps to gain external resources are discussed in the following sections.

Intercultural Communication Competence

Intercultural communication competence (ICC) is generally referred as the "knowledge, motivation, and skills to interact effectively and appropriately with members of different cultures" (Wiseman, 2002). It was developed from the integration of interpersonal communication competence and intercultural competence (Penbek, Şahin, & Cerit, 2012; Spitzberg, 2000). One is perceived as competent communicator when he/she is motivated to interact competently with a particular other interactant who is from different culture, knowledgeable about the interactant cultural background (e.g., culture's history, traditions, values, and customs), and equipped with skills in interacting with this particular interactant is also more likely to communicate better and be viewed as competent by this interactant in a given encounter (Spitzberg, 2000). Chen and Starosta (1998) define ICC from behavioral competence as "the ability to effectively and appropriately execute communication behaviors that negotiate each other's cultural identity or identities in a culturally diverse environment". ICC constitutes intercultural sensitivity, intercultural awareness and intercultural adroitness that reflect the affective, cognitive and behavioral processes respectively within the competency of verbal and non verbal communication.

In addition, the competency reflects the people ability to act within a given context effectively in a appropriate manner and they tend to be ready and willing to suspend belief, for instance, suspend the disbelief and judgment towards the others' meanings, beliefs and behaviors, suspend the belief in one's own meanings and behaviors, and analyze the view points of other interactants' meanings, belief and behaviors during the communication process (Byram, 1997). The consensual skills embedded in ICC from communication competency and intercultural competency scholars comprise of knowledge of culture, empathy, ability to deal with psychological stress, language competence, adaptation (e.g., adjust and adapt to the lifestyle and customs of a culture), communication effectiveness (e.g., ability to interact successfully, resolve communication problems, empathize with members with different culture in host countries, and able to communicate respect), social integration (e.g., interpersonal relationships

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

92

establishment and maintenance with host culture members) and behavioral competencies of problem-solving and task completion in an intercultural setting (Gudykunst & Hammer, 1984; Gudykunst, Wiseman, & Hammer, 1977; Hammer, 1987; Ruben, 1976; 1977).

The existence of ICC among expatriates and managers was reported significant in multinational corporations from prior studies. People with ICCC who are adapted to different viewpoints, solving problem and suspend judgment as result of cultural differences and effective communication in diverse culture are able to handle stress and manage to drive down the amount of stress encountered (Redmond, 2000). People who are respect for different cultures are more likely to improve their competence in intercultural communication with their level of engagement in international interactions (Penbek, Şahin, & Cerit, 2012). Interculturally competent persons know how to reach their desired response and communication goal during their interactions with others by respecting and affirming the others' cultural conventions, identities, values, thought and worldview. Social orientation, willingness to communicate and openness capacity were found facilitate the interaction adjustment in the global sample in Waxin's (2004) study.

Intercultural Communication Competence and Work-Family Balance
Conservation of resource theory and border theory are the underlying theories that explain the relevancy of the influence of ICC on work-family balance. In conservation of resource (COR) theory, 'people will strive to maintain social support both to preserve particular resources and to protect and maintain their identity' (Hobfoll, 2002; Hobfoll, Freedy, Lane, Geller, 1990). Personal resources such as one's social competency, one of the resource categories in COR theory affects both creating and maintaining support system (Hobfoll, 2002; Hobfoll, Freedy, Lane, Geller, 1990). Individuals have to preserve and protect other resources as well (Hobfoll, Freedy, Lane, & Geller, 1990). People are largely proactive or enactive rather than reactive (Clark, 2000). They are border crosser between work and family lives. They negotiate and communicate with whom they engage to shape their desired work and family lives. In border theory, frequent communication between border-keepers such as supervisor and spouse, and crossers between work and family borders can help both to have better understanding and effectively negotiate the borders between work and family domains to alleviate role conflict and attain balance (Clark, 2000). The understanding of border crosser' other-domain responsibilities is needed to prevent from the unrealistic or poorly timed demands made by significant others from the other domain of life which enable the crossers to better juggle their work-family role responsibilities.
Adaption is an ability to function, adapt to the lifestyle and customs of a culture, and is one of the skills under ICC which related to expatriate adjustment. Interaction adjustment which involves socialization and daily interaction with host nationals is crucial for developing and maintaining relationships with host nationals. The adjustment was found significantly influence work-family conflict among expatriates in Shaffer and Joplin's (2001), and Waxin's (2004) studies. The expatriates were less likely to use up the extra time and energy on their jobs that would encroach on resources dedicated to family. In addition, Waxin's (2004) study on interaction adjustment among the French, German, Korean and Scandinavian expatriated managers in India indicated that the interaction adjustment will be difficult based on the expatriates' country of origin. The aforementioned findings imply the importance of expatriates to possess ICC for better adjustment to achieve their desired goal in their interaction with the host nationals' managers or subordinates with distinct culture in dealing with the work-family policy and work and family lives arrangement. Interpersonal communication skills constitute role behavior flexibility, interaction posture, display of respect, tolerance for ambiguity, and knowledge of the host culture (Ruben & Kealey, 1979). The skills are crucial for cross-cultural adaptation as they have been found effective in interaction with nationals that involve social adjustment, cross-cultural interaction, and participation as well as transfer one's knowledge, skills, and competencies to another so that the recipient is able to apply those competencies himself or herself. Lazarova, Westman and Shaffer (2010) proposed that the cultural adjustment influence the work and family role adjustment that relevance to expatriates and their partner. As international assignments have been viewed as disruptive and place demand on expatriate families, inability to adjust leads to the failure of international assignments.

ICC is crucial to expatriate and local national who are in managerial position for multinational corporations' work-family policy implementation to ensure their subordinates from different cultural background effectively deal with their work-family interface. According to Byram (1997), people with ICC

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

93

tend to suspend their prior belief in one's meaning and behaviors and suspend disbelief and judgment with respect to others' meanings in the first place. They analyze them from the others' viewpoint with whom they are engaging. Most of ICC scholars found that those with ICC are motivated to communicate with others and able to empathize to listen well during the interaction with others and have capacity to be flexible. According to Arasaratnam (2006), people with the aforementioned characteristics have positive attitude toward people of other cultures. As ICC reinforces the interaction between supervisors and subordinates, supervisors have better knowledge of cultural value and priority subordinates place on work and family lives. The value and priority have been found influence the work-family balance (Clark, 2000; Greenhaus & Allen, in press; Lobel, 1991). Consequently, supervisors will provide necessary emotional and instrumental supports and more flexible to grant the necessary work-family benefits that fit to the needs of users of work-family policy so that they are successfully manage their work-family lives without negative career consequences. Besides, as those people in managerial position better understand the cultural difference through their interaction with subordinates in host countries with distinctive culture, they are viewed as importance source and catalyst to drive the change of work-family policy if fitness of the policy in host countries is not avail by giving feedback to the home country's human resource department in headquarter for the necessary change.

Work-family balance derives from ongoing, flexible role-related negotiations instead of prioritizing roles or role performance. (Carlson, Grzywacz, & Zivnuska, 2009). Meeting the expected work-family boundary requires negotiation for boundary construction and maintenance in communication process (Kreiner, Hollensbe & Sheep, 2009). Lower level of communication competence which reflected by lower levels of self-disclosure and assertiveness keep others at a distance and obtain less support satisfaction respectively as others may feel less willing or committed to offer genuine and satisfying support which impede individual from gaining external resources for balancing work and family lives (Anders & Tucker, 2000). Interculturally competent persons know how to reach the desired response and communication goals by respecting and affirming the others' (e.g., social members, ethnic groups, and countries) cultural conventions and identities, values, thought and worldview. Intercultural communication competent tends to be highly tolerates with various cultural differences, and keen to learn to deal with the cultural differences through the mutual coordination (Shen & Huang, 2014). Communication competent foresees potential obstacles to their plans for accomplishing goals and does necessarily adjustment or adaptation to the goals and plans accordingly to the situational, relational and cultural circumstances (Chelune, 1981; Wilson & Sabee, 2003).

By possessing ICC, it also helps people to gain other resources like 'negotiating reality' to strengthen their resource pool to maintain their work-family balance. According to Friedman and Antal (2005), 'negotiating reality', an intercultural competence that encompasses the ability to recognize their complexity of own culture and other's culture and use the cultural differences as a resource for learning and for designing the effective action in specific contexts which reflects the openness to differences of the way of thinking and acting. The competency enables people to recognize the differences of reality view and people are more likely to create common understandings and generate collaborative action which may enable interculturally communication competent to gain the support from coworkers and family to fulfill their work and family responsibilities such as coworkers and family pick up the slack when one is moving away from their work for family matters or from family for work matters. Furthermore, ICC foster expatriate to learn and adapt to the host countries' ways in dealing with work and family lives.

Rosenzweig, Malsch, Brennan, Huffstutter, Stewart and Lieberman's (2011) study showed that those parents and human resource staff grew in communication competence from prior experiences, negotiation regarding possible family supports in the workplace progressed to the desired outcomes. Thus, ICC is predicted to have positive impact on work-family balance, a desired goal in the communication process between co-workers, supervisor and subordinate that may entail negotiating process in high work demand context. In Zimmerman, Haddock, Current and Ziemba's (2003) interview, dual-earner families were found successfully balance their work and family life through creating opportunities for re-evaluating and renegotiating the division of work when their prior arrangement is not effective or inefficient and heavy housework experienced by one partner. Most couples communicate their relationship expectations, for instance, the expectation of time for each partner to involve in their personal hobbies or activities, to spend time with friends, and to spend time to be alone. Both re-evaluation and

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

94

renegotiation are required for necessary change of goals, plans and action during conversation signals the importance to be communication competent in balancing work and family life successfully.

Discussion and Future Direction

ICC, one of the personal resources which provide better valuable insight of work-family balance for multinational corporations is proven to be effective to manage workforce with diverse culture and it can be developed and improved through training. Recruiting interculturally communication competent expatriates will help the company to minimize the negative consequences such as withdrawal, absenteeism, task avoidance, lower productivity that affect the performance of multinational corporations due to the failure of adjusting the work and family responsibilities when they are given international assignments. Interculturally communication competent are more adaptable to the cultural differences, effective in communication with others and motivated to involve in social adjustment as well as interaction adjustment to build a common understanding to gain collaborative actions from their coworkers and family as well as supervisors to enable them to fulfill their work and family responsibilities as well as to learn and adapt to the host countries' cultural difference in dealing with work and family lives.

Supervisors' or managers' ICC needs to be exercised for the understanding and their awareness of the needs differences of subordinates from different cultural background in helping the work-family policy design and implementation in multinational corporations. Forming work-family policy needs to be flexible to cater the needs differences to help subordinates to get through the difficulties in meeting their work and family expectations although there is core value for the organization in order to retain talented expatriate and host nationals to continue serve the company, and to improve expatriate performance and organization overall performance with the absence or less work-family conflict.

Future research is suggested to focus on comprehensive study in respect of the impact of ICC on work-family balance and how the competency buffers the effect of deleterious condition of work-family conflict on the performance and well-being of expatriates to provide better understanding its influence and how it works in cultural differences to improve performance. Researchers are also suggested to determine if ICC has buffering effect on stressors to mitigate the work-family conflicts experienced and consequently balance their work and family lives.

References

Anderson, S. E., Coffey, B. S., & Byerly, R. T. (2002). Formal organizational initiatives and informal workplace practices: Links to work-family conflict and job-related outcomes. *Journal of Management, 28*(6), 787-810.

Arasaratnam, L. A. (2006). Further testing of a new model of intercultural communication competence. *Communication Research Reports*, *23*(2), 93-99.

Aryee, S., Fields, D., & Luk, V. (1999). A cross-cultural test of a model of the work-family interface. *Journal of management*, *25*(4), 491-511.

Aryee, S., Srinivas, E. S., & Tan, H. H. (2005). Rhythms of life: antecedents and outcomes of work-family balance in employed parents. *Journal of applied psychology*, *90*(1), 132.

Behson, S. J. (2005). The relative contribution of formal and informal organizational work-family support. *Journal of Vocational Behavior, 66*(3), 487-500.

Byram, M. (1997). *Teaching and assessing intercultural communicative competence*. Multilingual Matters.

Carlson, D. S., Grzywacz, J. G., & Zivnuska, S. (2009). Is work-family balance more than conflict and enrichment? *Human Relations, 62*(10), 1459-1486.

Chelune, G. J. (1981). Self-disclosure flexibility, neuroticism, and effective interpersonal communication. *Western Journal of Speech Communication, 45*(4), 27-37.

Chen, G. M. (1990). Intercultural communication competence: Some perspectives of research. *Howard Journal of Communications*, *2*(3), 243-261.

Chen, G.M., and Starosta, W.J. (1998). *Foundations of intercultural communication*. Boston: Allyn

Clark, S. C. (2000). Work-family border theory: A new theory of work-family balance. *Human Relations, 53*(6), 747-770.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

95

Dinges, N. G., & Lieberman, D. A. (1989). Intercultural communication competence: Coping with stressful work situations. *International Journal of Intercultural Relations*, *13*(3), 371-385.

Friedman, V. J., & Antal, A. B. (2005). Negotiating Reality A Theory of Action Approach to Intercultural Competence. *Management Learning*, *36*(1), 69-86.

Frone, M. R. (2003). Work–family balance. In: Quck, JC.; Tetrick, LE., editors. *Handbook of occupational health psychology* (pp. 13-162). Washington, DC: American Psychological Association.

Frye, N. K., & Breaugh, J. A. (2004). Family-friendly policies, supervisor support, work-family conflict, family-work conflict, and satisfaction: A test of a conceptual model. *Journal of Business and Psychology, 19*(2), 197-220.

Grant-Vallone, E. J., & Ensher, E. A. (2001). An examination of work and personal life conflict, organizational support, and employee health among international expatriates. *International Journal of Intercultural Relations*, *25*(3), 261-278.

Greenhaus, J. H., & Allen, T. D. (in press). Work–family balance: A review and extension of the literature. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (2nd ed.) (pp. 165-183). Washington, DC: American.

Greenhaus, J. H., Collins, K. M., & Shaw, J. D. (2003). The relation between work–family balance and quality of life. *Journal of Vocational Behavior*, *63*(3), 510-531.

Gudykunst, W. B., & Hammer, M. R. (1984). Dimensions of intercultural effectiveness: Culture specific or culture general? *International Journal of Intercultural Relations, 8*, 1-10.

Gudykunst, W. B., Wiseman, R. L., & Hammer, M. R. (1977). Determinants of a sojourner's attitudinal satisfaction: A path model. In B. Ruben (Ed.), *Communication Yearbook I* (pp. 415-425). New Brunswick, N.J: Transaction Books.

Hammer, M. R. (1987). Behavioral dimensions of intercultural effectiveness: A replication and extension. *International Journal of Intercultural Relations, 11*, 65-88.

Hobfoll, S. E. (2002). Social and psychological resources and adaption. *Review of General Psychology, 6*(4), 307-324.

Hobfoll, S. E., Freedy, J., Lane, C., & Geller, P. (1990). Conservation of social resources: Social support resource theory. *Journal of Social and Personal Relationships*, 7(4), 465-478.

Jeffrey Hill, E., Yang, C., Hawkins, A. J., & Ferris, M. (2004). A cross cultural test of the work family interface in 48 countries. *Journal of Marriage and Family*, *66*(5), 1300-1316.

Kinman, G., & Jones, F. (2008). A life beyond work? Job demands, work-life balance, and wellbeing in UK academics. *Journal of Human Behavior in the Social Environment, 17*(1), 41-60.

Kirby, E. L., & Krone, K. J. (2002). The Policy exists but you can't really use it: Communication and the structuration of work-family policies. *Journal of Applied Communication Research, 30*(1), 50-77.

Kreiner, G . E., Hollensbe, E. C., Sheep, M. L. (2009). Balancing borders and bridges: Negotiating the work-home interface via boundary work tactics. *Academy of Management Journal, 52*(4), 704-730.

Lazarova, M., Westman, M., & Shaffer, M. A. (2010). Elucidating the positive side of the work-family interface on international assignments: A model of expatriate work and family performance. *Academy of Management Review, 35*(1), 93-117.

Lobel, S. A. (1991). Allocation of investment in work and family roles: Alternative theories and implications for research. *Academy of Management Review, 16*(3), 507-521.

Luk, D. M., & Shaffer, M. A. (2005). Work and family domain stressors and support: Within- and cross-domain influences on work-family conflict. *Journal of Occupational and Organizational Psychology, 78*(4), 489-508.

Maertz, C. P., & Boyar, S. L. (2011). Work-family conflict, enrichment, and balance under "levels" and "episodes" approaches. *Journal of Management, 37*(1), 68-98.

O' Driscoll, M. P., Poelmans, S., Spector, P. E., Kalliath, T., Allen, T. D., Cooper, C. L., & Sanchez, J. I. (2003). Family-responsive interventions, perceived organizational and supervisor support, work-family conflict, and psychological strain. *International Journal of Stress Management*, *10*(4), 326-344.

Penbek, Ş., Şahin, D. Y., & Cerit, A. G. (2012). Intercultural communication competence: A study about the intercultural sensitivity of university students based on their education and international experiences. *International Journal of Logistics Systems and Management*, *11*(2), 232-252.

Redmond, M. V. (2000). Cultural distance as a mediating factor between stress and intercultural communication competence. *International Journal of Intercultural Relations*, *24*(1), 151-159.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

96

Rosenzweig, J. M., Malsch, A. M., Brennan, E. M., Huffstutter, K. J., Stewart, L. M., & Lieberman, L. A. (2011). Managing communication at the work-life boundary: Parents of children and youth with mental health disorders and human resource professionals. *Best Practices in Mental Health: An International Journal*, *7*(1), 67-93.

Ruben, B. D. (1976). Assessing communication competency for intercultural adaptation. *Group and Organization Studies, 1*(3), 334-354.

Ruben, B. D. (1977). Human communication and cross-cultural effectiveness. *International Journal of Intercultural Relations, 4,* 95-105*.*

Ruben, B. D., & Kealey, D. J. (1979). Behavioral assessment of communication competency and the prediction of cross-cultural adaptation. *International Journal of Intercultural Relations*, *3*(1), 15-47.

Saltzstein, A. L., Ting, Y., & Saltzstein, G. H. (2001). Work family balance and job satisfaction: The impact of family friendly policies on attitudes of federal government employees. *Public administration review*, *61*(4), 452-467.

Shen, J., & Huang, H. (2014, May). Fostering intercultural communication competence of University Foreign Affairs Administrators. In *International Conference on Education, Language, Art and Intercultural Communication (ICELAIC-14)*. Atlantis Press.

Spitzberg, B. H. (2000). A model of intercultural communication competence. *Intercultural communication: A reader*, *9*, 375-387.

Sukal, M. F. (2009). *Alternative work arrangements and their relationship to work and nonwork outcomes: A research synthesis*. Alliant International University, Los Angeles.

Voydanoff, P. (2004). The effects of work demands and resources on work-to-family conflict and facilitation. *Journal of Marriage and Family, 66*(2), 398-412.

Waxin, M. F. (2004). Expatriates' interaction adjustment: The direct and moderator effects of culture of origin. *International Journal of Intercultural Relations*, *28*(1), 61-79.

Wilson, S. R. & Sabee, C. M. (2003). Explicating communicative competence as a theoretical term. In J. O. Greene & B. R. Burleson, *Handbook of communication and social interaction skills* (pp. 3-50). Mahwah, NJ: Lawrence Erlbaum.

Zimmerman, T. S., Haddock, S. A., Current, L. R., & Ziemba, S. (2003). Intimate partnership: Foundation to the successful balance of family and work. *America Journal of Family Therapy, 31*(2), 107-124.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

97

Technology changes the M-government service in Malaysia? Key attributes and acceptance: Conceptual Framework

Annie Ng Cheng San [a], Choy Johnn Yee [b], Krishna Moorthy Manicka Nadar [c]

[a]Universiti Tunku Abdul Rahman, Malaysia, anniencsan@gmail.com

[b] Universiti Tunku Abdul Rahman, Malaysia, choyjy@utar.edu.my

[c]Universiti Tunku Abdul Rahman, Malaysia, krishnam@utar.edu.my

Abstract

In year 2014, there are 27.3 millions of mobile phone users in Malaysia. With the high mobile penetration, the mobile government (M-government) services are expected to incessantly expand. However, the usage of M-government services in Malaysia is limited. Hence, understanding the factors that influence the acceptance of M-government service is critical to create a successful M-government service. Past studies showed that most of the M-government studies focused the Technology Acceptance Model and Unified Theory of Acceptance and Use of Technology II (UTAUT II) models. Yet, these models are not specifically design for M-government context. Thus, this study adapted the model proposed by Venkatesh, Chan and Thong (2012) to test the citizens' acceptance of M-government service with five main variables: security provision, technical support provision, usability, resource requirement, and personal innovativeness. This model based on the Grönroos (1987) and Diffusion of Innovative (DOI) concept, which believed that the successful of M-government service is based on the 'perceived quality of the service' and citizens with high innovative will tend to accept the M-government. The findings are expected to fill up the literature gap by widening the theoretical grounding to understand the citizens' preferences in M-government and improving the generalizability of proposed model to develop a better significant conceptual M-government service model that applicable to Malaysia. It also aims to provide a practical guideline and crucial evaluation indicator for local authority to implement a successful M-government services.

Keywords: mobile government services, usability, computer resource requirement, technical support provision, security provision

Introduction

With the emergence of Internet, the electronic government (e-government) is created to mobilizing the government capital into simple, moral, accountable, responsive and transparent (SMART) governance via the information and communication technologies (ICTs) (Monga, 2008). However, e-government has failed to live up to the expectation. According to the World Bank (2012), there are only 65 Internet users out of 100 citizens in Malaysia. Yet, there are still 35% of the citizens are not Internet user. The Internet connectivity issue caused the e-government services not able to deliver at anywhere and at anytime to all the citizens in Malaysia. Hence, to overcome the limitation of e-government service, the mobile government (M-government) service is introduced in year 2007 named mySMS. Continually, the government launched multiple M-government services such as myAPP, myPay, and myMMS.

M-government services

M-government deliver services to Malaysia citizen via mobile wireless communication infrastructure such as mobile phone (Al-Thunibat, Mat Zin, & Sahari, 2011). In year 2014, there are 27.3

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

98

millions of mobile users in Malaysia which represent 143% of mobile penetration rate (Mobile Users, 2014). With the power of high mobile penetration in Malaysia, it is a good opportunity to extend and improve the government service. Hence, M-government is introduced as an extension of e-government service to a mobile platform, which consists of two unique characteristics: mobility and wireless. The unique characteristics of M-government service cause the better option as compared to e-government services as it provides real time information on demand and deliver services to reach all Malaysia citizens in a more effective and efficient manner (Al-Hujran, 2012). Despite that over the past few years, many developing and developed countries are launching M-government services to improve the government and public interactions, the Malaysia's M-government services are underutilized (Abdullah, Mansor, & Hamzah, 2013).

Problem Statement

In the view of mobile and wireless infrastructure are expected to play a central role in all publics live, the mission to promote and implement M-government services has increase tremendously. Yet, as per today, out of the total 27.3 millions of mobile users, only 329,586 citizens registered for M-government services (myGov Mobile, 2014). The M-government services acceptance and usage is low and limited (Abdullah, Mansor, & Hamzah, 2013). In spite of the myriad of service provided online or via mobile devices, most of the citizens still prefer to conduct the related government operation in the traditional way. This is supported by Venkatesh, Chan, and Thong (2012) who urged that the higher acceptance of mobile technology in daily activities might not guarantee the M-government service acceptance. In the latest United Nations E-Government Survey (2014), Malaysia ranked 52ⁿᵈ among the countries, has dropped eighteen places as compared to the ranking in year 2010. Among the Asian countries such as Singapore, South Korean and Japan, Malaysia's e-government and M-government services is still lagging behind. This indicated that more study is needed to be done to further analyze the factors influencing the acceptance of M-government services among Malaysia's citizens.

Deficiency of Past Studies

In the past literatures, several theoretical models such as Technology Acceptance Model (TAM), Diffusion of Innovations Theory (DOI) and Unified Theory of Acceptance and Use of Technology (UTAUT) model have been applied in M-government and e-government studies. Yet, several literature gaps have been notified. First, majority of these TAM and UTAUT models are not specifically designed for M-government services. Merely based on the single theory or concept, it is incomplete (Shafinah, Sahari, Sulaiman, Mohd Yusoff, & Mohd Ikram, 2013). Venkatesh, Chan and Thong (2012) urged that the "government services are different from commercial services" (p. 161). M-government service includes complex transaction, exposure of confidential information and involves self-service in the public context.

Indeed, to implement a successful M-government, a wider theoretical grounding to understand the user's preferences is needed. Yet, the past studies have ignored this gap. This study, thus combining the service quality and DOI theory which adapted from the proposed model of Venkatesh, Chan, and Thong (2012) which suggested to include the service quality and personal innovativeness into the IS literatures. It also highlighted that victorious of M-government services focuses on its service quality based on the public perceptions. Grönroos (1984, 1987, 1998, and 2000) conceptualization also highlighted that success of the service quality focus on the expected and perceived service, as users will compare their expectations with the perceived service. Thus, the outcome of evaluation process will be the perceived quality of service. To overcome the gaps, there are five proposed attributes namely, security provision, technical support provision, usability, resource equipment, and personal innovativeness that influence the citizens' intention to use the M-government services in Malaysia.

Research objective

To keep pace with the fast moving world of mobile technology, Malaysia government need to enhance the citizens' confidence to accept and use the M-government services by providing a quality M-government. The core of this study is to gauge the key attributes that influence the citizens' intention to use M-government service.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

99

Significant of Study

This study would specifically help in both theoretical and managerial aspect. The findings aim to determine the key attributes of M-government service in Malaysia and propose a significant model specifically design for M-government service. The proposed model for this study enables the researchers to cover a wider angle in viewing the dimension of service quality and enhance its generalizability in various studies. It highlights that the importance of service attributes as a key driver of the successful of M-government service decision and implementation. From practical standpoint, the findings of the study provide a useful and practical guidance to policy maker in designing and implementing a successful M-government service, which able to satisfy the citizen's needs.

Literature review

Service quality

According to Grönroos (1984), the quality of service mainly focuses on expected service and perceived service. User will compare the expected service with the perceived services. Service quality is a key driver for all kind of services including the e-commerce (Soriano & Ponce, 2002); e-government (Venkatesh, Chan, & Thong, 2012) as well as the M-government services. For example, when the public intent to use the mySMS and he/she expect the information will deliver within five minutes (expected services). This citizen will perceived the quality of M-government service to be good if the SMS information manage to deliver not later than five minutes (perceived service) and vice-versa. In order to implement a successful M-government service, it is critical to minimize the gap between the expected and perceived M-government services.

Diffusion of Innovations Theory (DOI)

DOI is one of the earliest technology adoption theory proposed by Roger (1962). The author defined the diffusion as "process in which an innovation is communicated through certain channels over time among the members of a social system" (Roger, 2003, p.5). Innovation is essential key driver in every decision making process. DOI theory has been widely applied in various studies on M-commerce or technology service. However, less study adopted this DOI theory in M-government service. The authors urged that, innovative lead individual to enhance the willingness to try or accept the new technology.

According to Venkatesh, Chan, and Thong (2012) M-government is kind of technology innovation. It needs innovativeness to boost up the acceptance among the citizens. With combining the two main theories: service quality and DOI, this research therefore, proposed five key services attributes namely, security provision, technological support provision, usability, resource requirement and personal innovativeness that influence the citizens' intention to use the M-government services in Malaysia.

Behavioral Intention

Behavioral intention has been widely adopted as to measure the acceptance in mobile technology such as m-services (Shafinah et al., 2013), m-commerce (Shih & Chen, 2013) and M-government services (Al-Thunibat, Mat Zin, & Sahari, 2011). It is defined as extent of individual's strength of willingness to adopt the said technology. In this study, behavioral intention has used to measure the acceptance of M-government services in Malaysia. According to Maarop and Win (2012), it is the best predictor of one's intention to perform the said behaviour. Yi, Jackson, Park, and Probst (2006) and Ng and Choy (2013) highlighted that the use of behavioral intention to represent the actual usage avoid the retrospective analysis and reduce down the response bias.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

100

Key attributes:
Security provision

In the recent study of Al-Thunibat, Mat Zin, and Sahari (2011) highlighted that the major limitation of M-government service in Malaysia is lack of security. Security provision defined as the degree of users' confidence on the safeguards and trust on open channel of mobile technology that information will not be shared or intercepted by other media (Shareef, Archer, Sharan, & Kumar, 2010). It is to make sure the technical safety and to avoid the fraudulent access (Surjadjaja, Ghosh, & Antony, 2003). M-government services often subject to threats due to the mobile size, location service, physical sensor and processing of high privacy and security sensitive information. It resulted that the users will resist his or her intention to use M-government service unless they feel secure and safe towards the technology. The study of Venkatest, Thong, and Xu (2012) empirically supported that the security provision is one of the most important constructs for government service. This is in line with the findings of Shareef, Archer, and Dwivedi (2012), which suggests the local authority should address the mobile security provision as dominant focus in order to capture the full potential demand of M-government services. As result, this study intents to include the security provision to test its influence towards the behavioral intention of M-government services. The hypothesis is proposed as follow:

H1.   Security Provision significantly influences the Behavioral Intention to use M-government services.

Technical Support Provision

Venkatesh, Chan, and Thong (2012) defined the technical support provision as real-time assistance from the knowledgeable government services representative. It focuses on the willingness and promptness to help the citizens' in solving their problem and to ensure the users are satisfied with their needs. In the study conducted by Shareef, Acher, and Dwivedi (2012), technical support is essential driver for a successful M-government. For instance, when citizen apply M-government services, they need the customer services, which are prompt, sympathetic, careful, assisting, and cooperative. With the friendly customer services, sufficient technical support, education and real time assistance, it encourage the users to have better knowledge about the M-government services' function and usage, thus it boost up the citizens' confidence and acceptance to use the M-government service. Thus, this study proposed the following hypothesis:

H2.   Technical Support Provision significantly influences the Behavioral Intention to use M-government services.

Usability

Usability is one of the important key attribute to the acceptance of technology. It is one's perception of the degree of ease associated with the use of technology (Venkatesh, Chan, & Thong, 2013). It is a combination constructs from ease of use in Innovative Diffusion Theory, perceived ease of use in Technology Acceptance Model and complexity in Model of PC Utilization. Due to the government services requires a large number to complicated procedures and the public always perceived the government service as being complex and less usability. The poor usability may cause the public to have lower intention to use the M-government service, as they may perceive that the service is not easy to control, operate and understand. In Chau and Hu (2002) study however, found an inconsistent finding. The perceived usability does not bring any significant influence on behavioral intention. This might due to the study mainly targeted the professional practitioners, which have high learning capability. With the inconsistent result, the following hypothesis is retest in the M-government context:

H3.   Usability is significantly influences the Behavioral Intention to use M-government services.

Resource Requirement

In Venkatesh, Chan, and Thong's study (2012), the authors proposed one of the important key driver namely computer resource requirement to test its influences towards the citizen intention to use the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

101

e-government services. For every government service no matter e-government or M-government services, it needs hardware and software. Due to the different context with the Venkatesh, Chan, and Thong (2012), this study modifies the computer resource requirement into resource requirement and tests its influence towards the citizens' intention to use the M-government services. It focuses on the extent to which users need to expend any effort to adopt the necessary resource such as the network connection, transaction cost and access speed. For instance, for every mySMS services adopted by citizen require a charge of RM 0.15 to RM 0.20 each. These cost may cause the citizen might not intent to use the M-government services. The findings of Al-Thunibat, Mat Zin, and Sahari (2011) also supported that the transaction speed and cost of M-government services should be improve in order to motive the citizens' acceptance to use m-government services. Thus, the following hypothesis is proposed as follows:

H4.   Resource Requirement is significantly influences the Behavioral Intention to use M-government services.

Personal Innovativeness

Roger (2003) defined the personal innovativeness, as the degree of individual was relatively earlier in accepting and adopting new ideas or novel products and services as compared to others. Agarwal and Prasad (1997) urged that user with higher personal innovativeness will tend to accept and adopt the new technology or services. Shafinah et al. (2013) study also supported that personal innovativeness as essential key attributes for behavioural intention of mobile technology or M-government services. Thus, the proposed hypothesis is as follows:

H5.   Personal Innovativeness is significantly influences the Behavioral Intention to use M-government services.

Proposed Conceptual Framework

With the past literature reviews, this study focuses on five main services driver that influence the citizens' acceptance for M-government services in Malaysia. Hence, the proposed conceptual framework for this study is as follows:

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

102
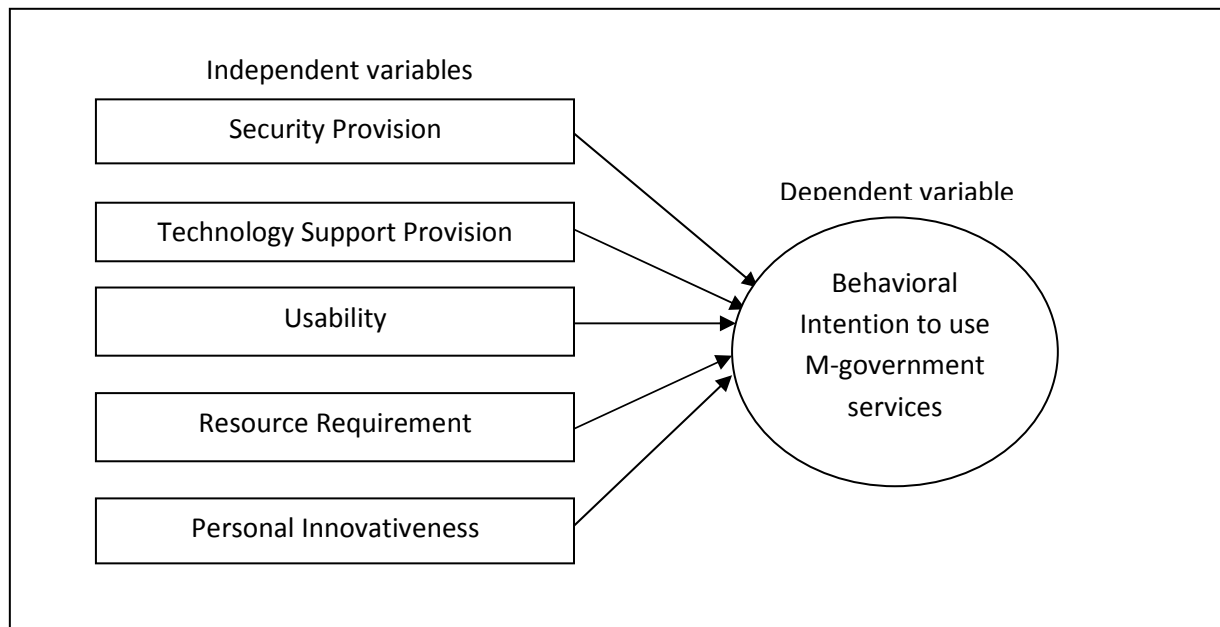
Conclusion and Implications

Conclusion

The mission of Malaysia government to achieve at least 30% of registered users to fully utilize the M-government services in year 2015, yet as per today the acceptance of M-government services is still in the slow moving growth. The acceptance and usage of M-government services are limited. The reluctance of citizen to trust, use and acceptance the innovativeness of M-government services is an issue that needs to be addressed tremendously. A successful M-government services mainly determine by the fulfillment of the citizen's expectation and preference. Understand the citizens' preferences towards the M-government services lead to enrich and improve the technology design to boost up the citizens' acceptance.

Theoretical Implications

Even though many studies were conducted in M-government services, the majority of the studies have focused on one single theory such as TAM, DOI or UTAUT. Yet, the parsimonious nature of the original models has not been design for M-government service. It might not be complete capture all the citizens' preference towards the M-government services. Theoretically, this study examine the applicability of service quality with DOI theory to examine the security provision, technical support provision, usability, resource requirement and personal innovativeness to determine the significant citizens' preferences to accept the M-government services. It, therefore yield insights to the future research to apply wider theoretical grounding to capture and understand the citizens' preference and improve the acceptance of M-government services.

Practical Implications

The findings of this study expected to assist the authority who involved in the designing and implementing the M-government service to better understand the citizens' preferences and apply it to improve the M-government acceptance. It helps the stakeholders to realize the benefit of M-government services and narrow the expectation gaps to fulfill the citizens' needs. The proposed conceptual framework in this study will also provide a practice roadmap for the Malaysia government for future initiatives' evaluation. Improving the acceptance of M-government is crucial to lead Malaysia to the successful implementation of future initiatives.

References

Abdullah, N. R. W., Mansor, N. B., & Hamzah, A. (2013). Keeping ahead of the game: Innovations and challenges in e-government in Malaysia. *The Economic and Labour Relations, 24*(4), 549-56.

Al-Hujran, O. (2012). Toward the utilization of M-government services in developing countries: A qualitative investigation. *International Journal of Business and Social Science, 3*(5), 155-160.

Al-Thunibat , A., Mat, Z. N., & Ashaari, N. S. (2011). Identifying user requirements of Mobile government services in Malaysia using focus group method. *Journal of e-government studies and best practices. (2011),* 1-14.

Chau, Y.K.P., & J.P. Hu. (2002). Examining a model of information technology acceptance by individual professionals: An exploratory study *Journal of Management Information Systems, 18*(4), 191-229.

Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing, 18*(4), 36–44.

Grönroos, C. (1987). *Developing the service offering: a source of competitive advantage.In: Suprenant, C. (Ed.), Add Value to Your Service, 8.* American Marketing Association, Chicago, 1–85.

Grönroos, C. (1988). Service marketing theory—back to basics. Swedish School of Economics and Business Administration. Helsingfors, Finland.

Grönroos, C. (2000). Service Management and Marketing: A Customer Relationship Management Approach. Wiley, Chichester, New York.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

103

Maarop, N., & Win, K. T. (2012). The interplay of environmental factors in the acceptance of teleconsultation technology: A mixed methods study. *Open International Journal of Informatics, 1*(2012), 46-58.

Mobile Users. (2014). Retrieved from http://www.forest-interactive.com/mobile-users-2014/

Monga, A. (2008). E-government in India: opportunities and challenges. *JOAAG, 3*(2), 52-61.

myGov Mobile. (2014). *The Malaysian Government's Official Portal For Mobile Services*. Retrieved from http://www.mygovmobile.malaysia.gov.my/web/

Ng, A. C. S., & Choy, J. Y. (2013). The modified Technology Acceptance Model for private clinical physicians: A case study in Malaysia, Penang. *International Journal of Academic Research in Business and Social Sciences, 3*(2), 380-403.

Rogers, E. M. (1962). *Diffusion of Innovations,* New York, USA: Free Press of Glencoe, A Division of Simon and Schuster.

Rogers, E. M. (2013). *Diffusion of Innovations,* New York, USA: Free Press, A Division of Simon and Schuster.

Shafinah, K., Sahari, N., Sulaiman, R., Mohd Yusoff, M. S., & Mohd Ikram, M. (2013). Determinants of user behavior intention on mobile services: A preliminary view. *Procedia Technology, 11*(2013), 127-133.

Shareef, M. A., Archer, N., Sharan, V., & Kumar, V. (2010). Critical factors for adoption of e-government: Validity of adoption model in Indian context. *In edited book Comparative E-Government by Chris Reddick*. Chapter 19.

Shareef, M. A., Archer, N., Sharan, V., *&* Kumar, V. (*2010*). Critical factors for adoption of E-government: validity of adoption model in Indian context. *Comparative E-Government Integrated Series in Information Systems, 25*(2010), 371-389.

Shareef, M. M., Archer, N., and Dwivedi, Y. K. (2012). Examining adoption behaviour of mobile government. *Journal of Computer Information Systems, 53*(2), 39- 49.

Shih, Y. Y., & Chen, C.Y. (2013). The study of behavioral intention for mobile commerce: via integrated model of TAM and TTF. *Quality & Quantity, 47*(2), 1009-1020.

Soriano, M., & Ponce, D. (2002). A security and usability proposal for mobile electronic commerce. *IEEE Communications Magazine, 40*(8), 62-67.

Surjadjaja, H., Ghosh, S.,& Antony, J. (2003). Determining and assessing the determinants of e-service operations. *Managing Service Quality, 13*(1), 39-53.

The world bank. (2012). *Internet users (per 100 people) | Data | Table*. Retrieved from http://data.worldbank.org/indicator/IT.NET.USER.P2

United Nations E-Government Survey. (2014).Retrieved from http://unpan3.un.org/egovkb/Portals/egovkb/Documents/un/2014-Survey/E-Gov_Complete_Survey-2014.pdf

Venkatesh, V., Chan, F. K. Y., & Thong, J. Y. L. (2012). Designing e-government services: Key service attributes and citizens' preference structures. *Journal of Operations Management, 30*(1-2), 116-133.

Yi, M. Y., Jackson, J. D., Park, J. S., & Probst, J. C. (2006). Understanding information technology acceptance by individual professionals: toward an integrative view. *Information & Management, 43*(3), 350-363.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

104

What Factors Support M-Learning Adoption among Google Generation? Literature Review and Proposed Model

YEW King-Tak[a] , Ho Siew Wei[b], Chan Jing Ru[c], Chaw Kah Yee[d],

Lee Jiun Sin[e], Lee Tzee Min[f].

[a] *Universiti Tunku Abdul Rahman, Malaysia, fredyew@gmail.com*

[b,c,d,e,f] *Universiti Tunku Abdul Rahman, Malaysia*

Abstract

The principal objective of this paper is to develop a conceptual model to examine the relationship between the Google generation's attitude and intention to adopt M-learning from the viewpoint of Google generation. To build the conceptual model, the background of Unified Theory of Acceptance and Use of Technology (UTAUT). and technology adoption theories serve as a good starting point. The existing research study is based on the comprehensive assessment of existing literatures, the four adoption factors namely, performance expectancy, effort expectancy, social influence, and facilitating condition and their influence on the Google generation's intention towards M-Learning adoption.

Keywords: M-Learning, Google Generation, UTAUT model, Mobile device, adoption

Introduction

The implementation of Electronic Learning (E-Learning) in education is growing continuously; however, the wired electronic devices and networks happened to be a limitation for learners accessing learning materials at some location. Therefore, teenagers are widely preferred in carrying out learning activities through mobile devices due to its convenience (Ch'ng & Samsudin, 2013).

Students in this current generation are surrounded with rich media and living in an information-centric environment (Mang, 2006). Google Generation refers to the people who born in 1994 onwards, growing up in a world dominated by the internet and mobile devices (Nicholas, Rowlands, Clark & Williams, 2010).

Mobile Learning (M-Learning) defined as the learning environment that supports the mobility among technology, learners and learning, that enable learners to conduct learning activities (El-Hussein & Cronje, 2010). El-Hussein and Cronje (2010) also define M-Learning as one of the learning environment that allows learners to conduct learning through mobile devices at any places that receiving unbroken transmission signals. In the education sector, M-Learning plays an important role because it develops higher level thinking skills, social interaction skills, responsibility for each other and even promotes higher achievement (Pocatilu, Doinea & Ciurea, 2010) because M-Learning also creates an enriching learning environment and offers greater learning flexibility to learners (Chao & Chen, 2009). Through the use of mobile devices, it provides instructional materials and interaction that allows learners to use M-Learning whenever and wherever learners are on the move (Jacob & Isaac, 2008).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

105

Mobile devices, such as Chromebook, Tablets, Phablets, Smartphone, and etc., must be small and powered by batteries, and are easier to carry from one place to another (Noguera & Torres, 2013). The trend on mobile devices usage has been increasing recently in Malaysia. The Malaysian Communications and Multimedia Commission (MCMC) (2012) has carried out a Hand Phone Users Survey 2012, reported the hand phone usage of different age group. Results of the Hand Phone Users Survey 2012, shows an increasing number of mobile devices users in Malaysia (MCMC, 2012). Therefore, this study is to find out whether the M-Learning adoption is corresponding with the results of the hand phone users survey, which could be implemented on the students.

This study is to investigate the factors support Google Generation's attitude and intention to adopt M-Learning from the viewpoint of Google Generation. The data collection is conducted and intends to address the research questions as follow: (1) Investigate the relationship between behavioral intention and use behavior to use M-Learning among Google Generation (2) Examine the relationship between facilitating condition and use behavior to use M-Learning among Google Generation. (3) Investigate the relationship between the various extents factors and the behavioral intention to use M-Learning among Google Generation

It is important for educationists understand Google Generation's learning concept in Malaysia's private university. Through this study will provide the educators to have a better decision making while implementing M-Learning in tertiary education, and contribute to future researchers or educationalists on the behavior of Google Generation's response, use, and adapt to M-Learning environment provided by the Malaysian private universities. Lastly, it also could benefit researchers in future research in another specific generation group to implement M-Learning in tertiary education.

This study is structured as follow with review literature and proposed research model that is relevant to the factors affecting M-Learning. These lead to the development of the survey research and distributing survey questionnaire.

Review of Literature

Theory of Reasoned Action (TRA)

TRA indicates that user's behavior is a reflection of user's intention and future usage of particular system is determine by user's behavioral intention (BI) (Jackson, Chow and Leitch, 1997).

Unified Theory of Acceptance and Use of Technology (UTAUT)

UTAUT model is suitable to predict BI and UB of student in higher education towards use of education systems as the research has successful result that UTAUT is able to explain the acceptance of education systems. (Van Schaik, 2009)

One of the most established research areas is to explain the user's acceptance for new technology to improve its productivity in the contemporary information systems literature (Venkatesh et al., 2003). User acceptance is meant by determining the value of information technology and understanding the value of the factors contributing to educational organizations (Taylor & Todd, 1995).

Venkatesh et al. (2003) developed the UTAUT model to describe user acceptance and subsequent usage behavior towards a new information system, which is also called as the technology acceptance behavior. UTAUT model was developed based on eight prior adoption models, which are TRA, the Technology Acceptance Model (TAM), the Motivational Model (MM), the TPB; the combined TAM and TPB (c-TAM-TPB); the Model of PC Utilization (MPCU); the Innovation Diffusion Theory (IDT) and the Social Cognitive Theory (SCT); In UTAUT, there are four core determinants which are performance expectancy (PE),effort expectancy (EE), social influence (SI) and facilitating condition (FC) (Venkatesh, Thong, et al., 2012).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

106

UTAUT is able to explain the technology acceptance behavior which are directly influence BI to use a new information system and subsequent usage behavior. Those determinants are PE, EE, SI and FC. The effect of four determinants toward UB will be moderated by BI except FC has direct effect on UB (Venkatesh et al., 2003).

PE is the level that an individual trusts that his or her performance will improve by using particular IT systems (Venkatesh et al., 2003). It has been studied several times and those studies have the same result in their conclusion which PE has positive effect towards the BI to use M-Learning (Gunawardana & Ekanayaka, 2003). EE is the simplicity degree associated with the use of a particular system (Sharma, Ganpati, Kumar, 2013). In the study of Venkatesh et al. (2003), SI is the level that an individual's behavior to use a new system should be guided by the significant others, believing that he or she should use the system (Liu, 2011). FC is an objective environmental factor that observers have the same opinion will cause an act easy to accomplish (Vanketesh, 2003).

Nassuora (2012) adopted the UTAUT model with the four core determinants, PE, EE, SC and FC, to investigate on the tertiary education students' acceptance level to employ M-Learning within Saudi Arabia. Results showed students of tertiary education in Saudi Arabia have good perception towards the adoption of M-Learning, and EE and FC are both significant factors affecting the acceptance level of M-Learning.

Furthermore according to Nassuora (2012), UTAUT is generally used in information and communication technology acceptance studies because UTAUT is able to explain the BI and use of behavior while users are using a new information system. Thus, this study adopts UTAUT model and all four core determinant as the key factors affecting the M-Learning adoption among Google Generation in a Malaysian private university.

Google Generation

Google Generation is a young generation who born in year 1994 onwards, dominated by internet and technologies (Rowlands, Nicholas, Williams, et. al, 2008). According to Rennie and Patterson (2008), Google generation also defines as a generation which prefers using the internet as their first choice to look up for information, therefore they labeling themselves as a digital native which is rich of technology knowledge (Spring, 2010). Google Generation lives in a global web culture dominated by a handful of unifying brands. Consequently, they will have higher expectations on information and communication technologies (ICTs) (Rowlands et al., 2008).

Conceptual Model and Propositions Development

Use Behavior (UB)

The theory of planned behavior (TPB) (Ajzen,1985) defined intention (and its other theoretical constructs) as trying to perform a given behavior instead of direct relation to actual performance. Therefore, UB of an individual depends on the strength of intention to perform a behavior (Ajzen, 1991).

According to Trifonova and Ronchetti (2005), UB can be described as browsing styles (e.g. consecutive, random, interest driven, etc) and preferred education media's type such as prefers video to combination of text and pictures. Hence, in this research, the students' UB of M-learning will be measured to identify the characterization of user behavior from M-learning.

Venkatesh et al. (2003) stated that, UB refers to an individual's feelings towards using a newly developed system which affects the behavior performance. Carlsson, Carlsson, Hyvonen, et al. (2006) analyzed that UB will be influenced positively by BI; where there was a negative influence between FC and UB.

However, in the research of AlAwadhi and Morris (2008), BI and FC are both significantly positive factors to influence UB towards a newly developed system. Thus, this study will adopt the BI as well as the FC to determine the UB of M-Learning among Google Generation in a Malaysian private university.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

107

Behavioral Intention (BI)

TRA has defined BI as an individual's intention to carry out a behavior. BI is an individual's subjective choice, thus different outcome will be presented by individual with different intention. Motivational factors such as PE, EE, SI and FC may influence an individual behavior. (Ajzen, 1991)

Besides, successfulness of an information system project is determined by the user BI, where the user's BI refers to the willingness of the user to use the particular information technology. (Dillon & Morris, 1996) Walker and Pearson (2012) also defines BI as a way to measure the willingness of user to use a technology or system with the actual usage, thus BI of user can predict the user acceptance. UTAUT model is able to predict BI of user (Venkatesh, 2003). Therefore this study uses UTAUT model to measure BI to adopt M-learning. Hence, propose as:

P_1 : There is a relationship between BI and UB to adopt M-Learning

Performance Expectancy (PE)

PE is the level which an individual trusts that they will have better performance while using the information technology (IT) systems (Venkatesh et al., 2003). Gunawardana and Ekanayaka (2009) examined the factors would affect intention when use M-Learning among medical representatives. In this research, 205 questionnaires were distributed. The simple linear regression showed the intention to use M- Learning has been affected positively by PE.

Wang et al. (2009) studied the determinants of M-Learning acceptance and found out that acceptance levels of M-Learning will be different based on age and gender differences. The researchers used non-random sampling technique, and conducted survey by distributing 300 questionnaires to M-Learning users in Taiwan. Squared multiple correlations showed PE and BI to use M-learning has significant positive relationship.

According to Liu (2011), the Chinese student learning in a stressful environment, therefore the PE is their main concern for the adoption of M-Learning. This study also concludes that the PE has positive impact towards adoption of M-Learning and the m-learning has improved students' learning performance.

Nassuora (2012) used convenience sampling, and distributed 100 survey questionnaires to student of Al-Faisal University. Squared multiple correlations test showed that PE has direct effect to BI to use M-learning; there are no direct effect to users' attitude towards behavior for higher education students in Saudi Arabia. Besides, the authors suggested the future researcher may use their study for further research or develop technology in future. However Nassuora (2012) only focuses on the users in higher education in Saudi Arabia. Thus, this study may test the impact of PE in adoption of M-Learning in Malaysia.

Abu-Al-Aish, Love (2013) investigated the intention of higher education students in accepting M-Learning. The researcher used convenience sample technique and 183 questionnaires have been distributed to students of Brunel University. The result from squared multiple correlations test showed that PE has significant effect to BI of university student to adopt M-Learning.

These researches conducted in different countries show that PE has significant impact in adopting M-Learning, thus this study adopt PE as the research variable in order to test its impact on M-Learning adoption among Google Generation, and propose as:

P_2 : There is a relationship between PE and BI to adopt M-Learning

Effort Expectancy (EE)

Sharman, Ganpati and Kumar (2013) defined EE as the simplicity level of IT system associated with the use of a particular system. Sharma et al. (2013) indicated that the factors and moderators of UTAUT are sufficient to explain user's intentions to adopt a system. The research distributed 200

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

108

questionnaires have been distributed to students of colleges at India. The correlation analysis and regression analysis result showed that EE is significant towards the BI to use a system.

Furthermore, the research conducted by Strong, Irby and Dooley (2013) has found that the EE has significant effect on user's BI to use M-Learning. This research has used random sample technique and 303 surveys have been distributed to students of Texas A&M University in United State. Data of the research has been analyzed by using descriptive statistics; correlation coefficients; and multiple regression analysis.

In the research of Strong et al. (2013), it studied about the EE in regards to M- Learning among undergraduates. The research used stratified random sample with 687 students in Texas A&M University in United State. Research method used was survey and descriptive statistics to analyze the constructs of the independent variables in the form of Mean Weighted Discrepancy Scales (MWDS). The research results turned out to be positive; where users of M-Learning found it user-friendly, in terms of ease of use and ease to learn to operate, and M-Learning would be understandable.

The research result of Thomas, Singh & Gaffar (2013) also shows the EE has direct impact toward BI to adopt M-learning as 322 questionnaires have been distributed to student at University of Guyana and the hypotheses is being analyzed by using Chi-square statistic.

Several researches conducted and targeted the teachers and students in foreign countries showing that EE is an significant factor in affecting the M-Learning adoption, thus this study adopt EE in the research variable, and propose:

P$_3$: There is a relationship between EE and BI to adopt M-Learning

Social Influence

Venkatesh defined SI as the level of an individual perceives his or her intention to use a new system will be influenced by the significant others (as cited in Liu, 2011). Abu-Al-Aish, Love (2013) investigated the intention of higher education students in accepting M-Learning. The researcher used convenience sample technique and 183 questionnaires have been distributed to students of Brunel University. By using squared multiple correlations test the researcher found that SI has significant effect to BI of university student to adopt M-Learning.

Wang et al. (2009) examined the determinants of M-Learning acceptance and found out that there are different acceptance levels of M-Learning based on age and gender differences. The research used non-random sampling technique, and conducted survey by distributing 300 questionnaires to M-Learning users in Taiwan. Data used AMOS 4.0 to analyze, and square multiple regression assessed SI was only significant to male group's determinants of BI to use M-Learning.

In the research of Gunawardana and Ekanayaka (2009) examined the factors would affect intention when use M-Learning among medical representatives. Research carried out survey, and 205 out of 210 are usable questionnaires. The simple linear regression test and one-way ANOVA test showed SI significantly affects the intention to use, and the SI has only moderate impact on BI to use M-Learning for career development among medical representatives.

According to Nassuora (2012) conducted by targeting only on higher education student of Al-Faisal University in Saudi Arabia. The research used convenience sampling, and distributed 100 survey questionnaires to students of Al-Faisal University. Researcher used squared multiple correlations test indicated that the SI has a positive impact towards the acceptance of M-Learning adoption.

Jong and Wang (2009) has collected 606 valid surveys and result from stepwise regression analyses found out that the SI has significant influence on the BI to accept E-Learning system in Taiwan university students by targeting on the population of postsecondary students who take E-Learning classes. However, further understanding is needed on the acceptance of M-Learning on cultural differences. This is because students' behaviors could be influenced in different education environments.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

109

As the researches conduct in recent year showed SI has significant impact in M-Learning adoption among university students in several countries. This study adopts SI in the research variable to examine M-Learning adoption among Google Generation in Malaysia. Hence, this study propose:

P_4 : There is a relationship between SI and BI to adopt M-Learning

Facilitating Condition

FC is an objective environmental factor which observers have the same opinion will cause an easy to accomplish act (Venkatesh et al., 2003). FC is one of the factors that could influence users' behavior use mobile devices or services, and that could indirectly influence on M-Learning. Carlsson et al (2006) investigated the acceptance use the mobile devices or services with testing on the UTAUT at Finland. They use random sampling to choose sample among the population, and using questionnaire to collect the data. It showed that FC and mobile services did not have any relationship, in which they examined the relationship between FC and BI toward use mobile devices or services, and it had showed no significant relations.

As in Im, Hong, and Kang (2011) compared the cultures between Korea and U.S. acceptance technology affected by UTAUT model. 660 questionnaires were distributed to students and employees in Korea and United States respectively. The covariance Structural Equation Modeling analysis showed that FC has significant effect influencing users' behavior.

Iqbal and Qureshi (2012) studied the M-Learning adoption towards the students' perception. Convenient sampling was used to select which universities in Pakistan as sample, and 300 questionnaires were distributed to university students. Cronbach's Alpha and ordinary least square regression (OLS) were used to test the reliability and FC positively significant to the intention to adopt M-Learning.

Venkatesh, Thong and Xu (2012) tested the acceptance of extension UTAUT on consumers use on mobile internet technology in Hong Kong. Online survey was used and collected 4,127 self-selected consumers at the first stage, and final stage survey was distributed to 1,512 consumers. Cohen's F-square showed out the FC on BI effect which moderate with age and gender had shown a significant influence, yet moderate with experience was shown no significant. Results also showed that old women are important as well.

However, in the research of Thomas, Singh and Gaffar (2013), 322 questionnaires have been distributed to student at University of Guyana and the hypotheses is being analyzed by using Chi-square statistic and the results showed no significant relationship between FC and BI on adoption of M-Learning.

Thus, in order to investigate further on this particular factor, this study adopts FC as one of the research variable to examine its impact towards M-Learning adoption among Google Generation in a Malaysian private university. As such, propose as follow:

P_5 : There is a relationship between FC and UB to adopt M-Learning

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

110

Proposed Research Model
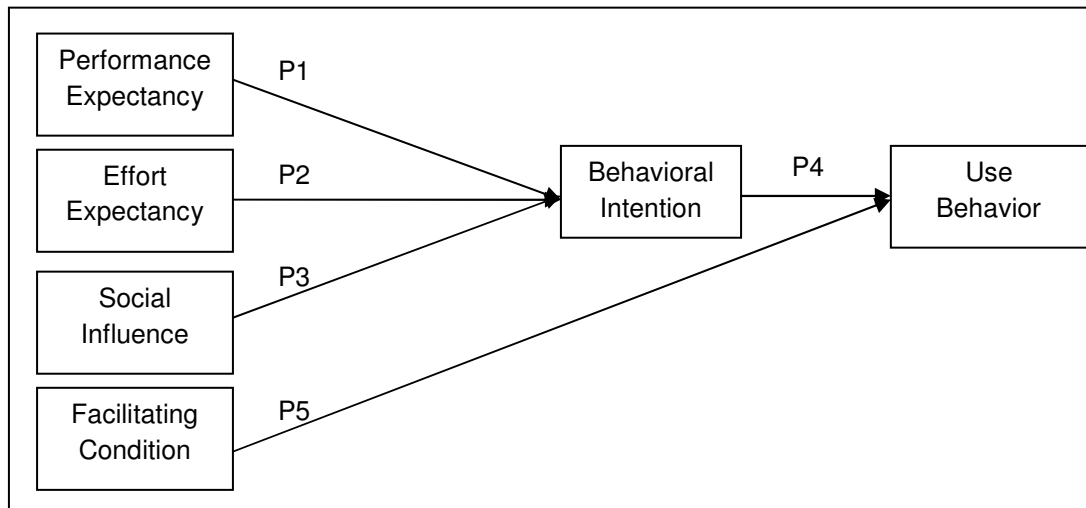
Figure 1. Adopted from: Venkatesh, V., Moris, M. G., Davis, F. D., & Davis, G. B. "User Acceptance of Information Technology: Toward a Unified View," *MIS Quarterly*, 27, 2003, 425-478

Conclusion

This study's propose framework is

The purpose of this research paper is to seek out the factors that affecting the intention to adopt M-Learning from the viewpoint of Google generation through the proposed adopted research model. To have a deeper understanding of the behavioral intention and improvement in the proposed model, further survey and research should be conducted. The self administrated questionnaire is distributed for data collection. The results of the survey will be posted in the future paper.

References

Abu-Al-Aish, A. & Love, S. (2013). Factors influencing students' acceptance of m-learning: an investigation in higher education. *The International Review of Research in Open and Distance Learning, 14*(5).

Ajzen, I. (1991). The theory of planned behavior.*Organizational Behavior and Human Decision Processes 50*, 179-211.

AlAwadhi, S. & Morris, A. (2008). The use of the UTAUT model in the adoption of e-government services in Kuwait. *Proceedings of the 41st Hawaii International Conference on System Sciences.*

Carlsson, C., Carlsson, J., Hyvonen, K., Puhakainen, J. & Walden, P. (2006).Adoption of Mobile Devices/Services – Searching for Answers with the UTAUT.

Chao, P. Y. & Chen, G. D. (2009). Augmenting Paper-Based Learning with Mobile Phones. *Interacting With Computers, 21*(3), 173-185. Retrieved July 27, 2013, from: http://iwc.oxfordjournals.org/content/21/3/173.abstract

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

111

Cheng, Y. S., Yu, T. F., Huang, C. F., Yu, C. & Yu, C. C. (2011). The comparison of three major occupations for user acceptance of information technology: applying the UTAUT model. *iBusiness, 3*(2), 147-158.

Crescente, M. L. & Lee, D. (2011). Critical issues of M-learning: design models, adoption processes, and future trends. *Journal of the Chinese Institute of Industrial Engineers, 28*(2), 111-123. Retrieved July 27, 2013 from: http://www.tandfonline.com/doi/abs/10.1080/10170669.2010.548856#.UyJyaPmSySp

Ch'ng, L. K. & Samsudin, Z. (2013).Integration of mobile devices into ubiquitous learning by the 21st century teenagers. *Education, 3*(6), 362-374.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of test. *Psychometrika*, *16*(3), 297-334.

DeCarlo, L. T. (1997). On the meaning and use of kurtosis.*Psychological Methods*, *2*(3), 292-307.

Dillon, A. & Morris, M. G. (1996).User acceptance of new information technology- theories and models. In: M. Williams (ed.) Annual Review of Information Science and Technology, Vol. 31, Medford NJ: Information Today, 3-32.

El-Hussein, M. O. M., & Cronje, J. C. (2010).Defining mobile learning in the higher education landscape. *Educational Technology & Society, 13*(3), 12-21.

Gunawardana, K. D. &Ekanayaka, S. (2009). An empirical study of the factors that impact medical representatives' Attitude toward the intention to use M-Learning for career development.*Sasin Journal of Management, 15*(1), 26.

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires.*Organizational Research Methods* 1998 1: 104-121.

Hair, J. F., Black, W. C. &Babin, B. J. (2010).*Multivariate data analysis: A global perspective.* Upper Saddle River, New Jersey: Pearson Education, Inc. Retrieved July 27, 2013, from: http://digitalcommons.kennesaw.edu/facpubs/2925/

Im, I., Hong, S., & Kang, M. S. (2011). An international comparison of technology adoption Testing the UTAUT model. *Information & Management, 48*, 1-8.

Iqbal, S. &Qureshi, I. A. (2012). M-Learning Adoption: A perspective from a developing country. *The International Review of Research in Open and Distance Learning, 13*(3), 147-164.

Jacob, S. M. &Issac, B. (2008, March). *The mobile devices and its mobile learning usage analysis.*Paper presented at Proceedings of the International MultiConference of Engineers and Computer Scientists, Hong Kong.

Jackson, C. M., Chow, S. & Leitch, R. A. (1997).Toward an understanding of the behavioral intention to use an information system.*Decision Sciences, 28*(2), 357-389.

Jairak, K., Praneetpolgrang, P. &Mekhabunchakij, K., (2009, December).*An acceptance of mobile learning for higher education students in Thailand.*Paper presented at The Sixth International Conference on eLearning for Knowledge-Based Society, Thailand.

Jong, D. & Wang, T. S. (2009). *Student Acceptance of Web-based Learning System.* Paper presented at The 2009 International Symposium on Web Information Systems and Applications, Nanchang, China.

Lee, P. (2006), Understanding and critiquing quantitative research papers. Nursing Times; 102: 28, 28–30.

Liu, Y. (2011). An adoption model for mobile learning. Research paper in, ÅboAkademi University.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

112

Malaysian Communications and Multimedia Commission. (2012). *Hand Phone Users Survey 2012.*Retrieved August 11, 2013, from http://www.skmm.gov.my/skmmgovmy/media/General/pdf/130717_HPUS2012.pdf

Mang, M. (2006).*iPod, uPod? An Emerging Mobile Learning Tool in Nursing Education and Students' Satisfaction.* Paper presented at Proceedings of the 23rd annual asclite conference: Who's learning? Whose technology?, Australia.

Marrs, K. (2013). An Investigation of the Factors that Influence Faculty and Student Acceptance of Mobile Learning in Online Higher Education.Ph. D. thesis, Nova Southeastern University.Retrieved March 12, 2014 from http://www.editlib.org/p/125453.

McColl, et al. (2001). Design and use of questionnaires: a review of best practice applicable to surveys of health service staff and patients. *Health Technology Assessment, 5*(31).

Nassuora, A. B. (2012). Students' acceptance of mobile learning for higher education in Saudi Arabia. *American Academic & Scholarly Research Journal, 4*(2), 24-30.

Nicholas, D., Rowlands, I., Clark. D. & Williams, P. (2010). Google Generation II: web behavior experiments with the BBC. *Aslib Proceedings: New Information Perspectives, 63*(1), 28-45.

Noguera, J. M. & Torres, J. C. (2013).Interaction and visualization of 3D virtual environments on mobile devices.*PersUbiquitComput*, 17: 1485-1486.

Pocatilu, P., Doinea, M. &Ciurea, C. (2010, December).*Development of Distributed Mobile Learning Systems*. Paper presented at Proceedings of the 9th WSEAS International Conference on Circuits, Systems, Electronics, Control & Signal Processing (CSECS '10), Vouliagmeni, Athens, Greece.

Rennie, J. & Patterson, A. (2008). Reading and identity: the google generation. *Literacy Learning: the Middle Years, 16*(2), 53-58.

Rowlands, I., Nicholas, D., Williams, P., Huntington, P. & Fieldhouse, M., Gunter, B., Withey, R., Jamali, H. R.., Dobrowolski, T. &Tenopir, C. (2008). The Google generation: the information behaviour of the researcher of the future. *Aslib Proceedings: New Information Perspectives, 60*(4), 290-310.

Saunders, M., Lewis, P., &Thornhill, A. (2009).*Research methods for business students* (5th ed.). England: Pearson Education Limited.

Sharman, A. K., Ganpati, A., & Kumar, D. (2013). Effect of Moderators on Determinants: A Case Study of Technology Acceptance Models. *International Journal of Research in Computer and Communication Technology*, *2*(5), 254-260.

Spring, H. (2010). Health professionals of the future: teaching information skills to the google generation. *Health Information & Libraries Journal.27*(2).158-162.

Strong, R., Irby, T. L. & Dooley, L. M. (2013). Factors influencing agricultural leadership students' behavioral intentions: examining the potential use of mobile technology in courses. *Journal of Agricultural Education, 54*(4), 149-161.

Taylor, S. & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research, 6*(2), 144-176.

Teo, T. (2011). Factors influencing teachers' intention to use technology: Model development and test. *Computers & Education, 57*(4), 2432-2440.

Thomas, T. D., Singh, L. & Gaffar, K. (2013).The utility of the UTAUT model in explaining mobile learning adoption in higher education in Guyana.*International Journal of Education and Development using Information and Communication Technology, 9*(3), 71-85.

Trifonova, A. &Ronchetti, M. (2005).Hoarding content in m-learning context. In: Proceedings of the 3rd IEEE conference on pervasive computing and communications workshops, Kauai Island, 8-12 March 2005.

Van Schaik, P. (2009) Unified theory of acceptance and use for websites used by students in higher education. *Journal of Educational Computing Research, 40*(2), 229-257.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). "User Acceptance of Information Technology: Toward a Unified View,".*MIS Quarterly, 27* (3).425-478.

Venkatesh, V., Thong, J.Y.L., &Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS quarterly, 36*(1), 157-178

Walker, S. C. & Pearson, J. (2012). Intent to use technology: facilitation effect of group presence. *International Journal of Business Information and Technology ISSN 1929-0985, 15*(1), 1-15.

Wang, Y. S., Wu, M. C. & Wang, H. Y. (2009).Investigating the determinants and age and gender differences in the acceptance of mobile learning.*British Journal of Educational Technology, 40*(1), 92-118.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

114

The Influence of Stakeholders on Malaysian SME's CSR Practices: Moderating Effect of Personal Values of SME's Owners-managers

Sok-Yee Teoh[a], Lip-Sam Thi[b] , Yik-Koon Teh[c]

[a]*Faculty of Business &Finance,UniversitiTunku Abdul Rahman, Malaysia,*
email: teohsy@utar.edu.my
[b]*College of Business, Universiti Utara Malaysia, Malaysia,*
email: thi@uum.edu.my
[c]*Faculty of Defence Studies and Management, Malaysia,*
email: teh@upnm.edu.my

Abstract

The field of corporate social responsibility (CSR) has been widely investigated on large corporations that have dominated the CSR agenda. Small and medium-sized enterprises (SMEs) are often overlooked because their involvement in CSR activities is often based on less formalized business strategies and ethical rationale of SMEs' owner-managers' consideration. As a result, there is a tendency for SMEs to under-report their CSR activities. However, recent trends show that there is growth in SMEs engagement in CSR activities towards their stakeholders. Previous studies have examined the relationship between SMEs owner-managers personal values and CSR practices in isolation from the direct relationship between CSR drivers and CSR activities among SMEs. There is a lack of studies which examine the role of SME owners-managers personal values in engaging stakeholder relationship that in turn affecting CSR implementation. The direct relationship between CSR drivers and CSR activities may be ambiguous without investigating the socio-psychological values of SME's owner-managers in CSR related decision making. This paper proposes a conceptual framework on how personal values of SME's owners-managers could be used as a moderator to explore the relationship between CSR drivers and CSR activities among Malaysian SMEs.

Keywords: Personal values of owner-managers, CSR drivers, SME-CSR implementations.

Introduction

Background of the study

The field of corporate social responsibility (CSR) has been widely investigated and has attracted worldwide interest among businesses, government and academia. CSR has been developed over decades and there is no universally agreed definition of CSR. A well known CSR definition had been suggested by Carroll (1979) who defined CSR as the social responsibility that comprises of economic, legal, ethical and discretionary responsibilities. European Commission (2001) defined CSR as a concept where "the companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis."

CSR has traditionally been the domain of large corporation due to the word "corporate", especially large multinational corporations (MNCs) which are expected to play a more significant role in the social domain, and have indeed dominated the CSR agenda (Jenkins, 2004). Similarly, CSR is also associated with large corporations such as Government-linked companies (GLCs) and Public listed companies (PLCs) in Malaysia. The studies of CSR have attracted the interest among researchers in Malaysia. Many local

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

115

studies have examined CSR disclosures in public listed and government linked companies (Teoh and Thong, 1984; Wan Abdul Rahman et al., 2001; Devi, 2003; Nik Ahmad et al., 2003; Ramasamy and Ting, 2004; Zulkifli and Amran, 2006; Amran and Susela, 2008).

Problem Statement

Although CSR have been developed over a few decades, the focus of CSR tends to be on large corporations. Small and medium-sized enterprises (SMEs) are often overlooked (Fuller, 2006; Jenkins, 2006) and have received only limited attention in the CSE literature (Baden et al., 2011; Fassin et al., 2011; Lynch-Wood et al., 2009; Perrini et al., 2007; Murillo and Lozano, 2006). The importance of SMEs has been highlighted by statistics which indicated that more than 90% of the world's companies are small firms, generating almost 65% of employment worldwide (Jamali et al., 2009; Perrini et al., 2007) and accounting for 60% employment in developing countries (Luetkenhorst, 2004).

Recent trends show that there is some growth in the engagement of SME in CSR activities. It is argued that all firms, regardless of their size, will have impact on society and environment through their operations, products, services and their interaction with key stakeholders. These key stakeholders include employees, community, trading partners and customers in the supply chain that vary from firm to firm (Jenkins, 2006; Worthington et al., 2006; Perrini et al., 2007; Hammann et al., 2009; Russo and Perrini, 2010; Santos, 2011). As SMEs are usually managed by individuals who are owners or managers of their companies, the personal characteristics of the 'owner-manager' will have strong influence on the company's structure, strategies, social behaviour and CSR approach (Jenkin, 2006, 2009). It is argued that stakeholders' relationship may be based on the personal values of SME owner-managers.

CSR related studies mainly focused on the relationship between SME's owner-managers personal values and CSR practices in isolation from the direct relationship between CSR drivers and CSR activities among SMEs (Longenecker et al., 1989; Vives, 2006; Jenkins, 2004, 2006; Madden et al., 2006; Murillo and Lozano, 2006; Spence and Lozano, 2000; Madden et al., 2006; Preuss and Perschke, 2010; Russo and Perrini, 2010). However, there is a lack of studies that examine the role of personal values of SME's owner-manager in engaging with their stakeholders and CSR activities. The direct relationship between stakeholders' driver and CSR activities may be ambiguous without investigating the psychological consideration among SME's owners-managers in CSR practices. This paper proposes a conceptual framework to investigate stakeholders' drivers and CSR activities among Malaysian SMEs through the exploration of personal values among SME's owners-managers.

Research Questions

The aims of this research are to provide answers to the following research questions:

(a) What are the types of CSR activities undertaken by SMEs in Malaysia?
(b) Which are the factors that influence the implementation of CSR among SMEs in Malaysia?
(c) Do SMEs' owners-managers personal values moderate the relationship between CSR drivers and CSR practices among SMEs in Malaysia?

Significance of study

The study may be of interest to Malaysian policy makers such as SME Corporation for future CSR planning. By understanding the patterns of CSR practices among SMEs, factors associated with the CSR practices and the behaviour of SME owner-manager, appropriate guidelines and initiatives can be drafted to encourage CSR participation among SMEs in Malaysia. In addition, the findings of this study will help to contribute knowledge related to CSR in Malaysia.

Literature Review

Large corporations and Small and Medium Sized Enterprise (SME)

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

116

The characteristics of a company tend to influence the CSR practices. Many researchers compared and contrast large companies and SMEs at different dimensions. As SMEs are mainly owned and managed by the owner, the personal characteristics of the 'owner-manager' will have strong influence on the company's structure, strategies, social behaviour and CSR approach (Jenkin, 2006, 2009; Spence, 2007). According to Jenkins (2006), the nature of stakeholder management relationship for SMEs is not much different compared with multinational corporations (MNCs). However, the management of their relationship tends to be different due to the nature of doing business. SMEs largely emphasized on interpersonal and personal relationship. Hence, stakeholder relationships for SMEs may be based on a more informal style. SMEs owners also emphasize more on personal judgment, personal motivation, intuition and trust, while corporate managers are emphasized on strategies, procedures and results.

When comparing SMEs and MNCs in terms of their organizational structure and management style, SME's owner-manager has greater degree of autonomy in decisions making (Jenkins, 2006). They tend to have small management teams that are strongly influenced by their values policies and daily practices (Murrillo and Lozano, 2006). The values of manager and owner of SMEs, such as ethics and religion are some of the reasons behind promoting CSR practices among SMEs (Vives, 2006).

Nature of CSR in SME
There is a tendency for SMEs to under-report their CSR activities. This can be due to SMEs use of informal approaches to conduct their CSR activities to the public (Russo and Tencati, 2009). Furthermore, SMEs are less likely to be aware they actually engaged in CSR activities (Business in Community, 2002). A majority of the SMEs have carried out a range of activities that can be perceived in CSR context. These activities have an unrecognized character because they do not adopt the official terminology, including the term CSR itself (Spence, 2007).

Many researchers have identified and categorized CSR activities in SMEs into four main categories, namely customer-oriented activities, workforce-oriented activities, customer-oriented activities, community-oriented activities and environmental-oriented activities (Jenkins, 2006; Dzansi and Pretorius, 2009; Moore, 2001; Kechiche and Soparnot, 2012). Customers have been recognized as one of the most important stakeholders for SMEs. They have been viewed as the primary focus of social responsibility by SMEs (Preuss and Perschke, 2010). To remain competitive, firm must satisfy the needs of their customers because they will determine the growth of business. Previous studies by Hess (2001), Dzansi and Pretorius, (2009) and Hammann et al. (2009) have identified that customer oriented CSR activities are important to SMEs, such as providing quality and safe products, providing accurate information, customer complaints handling and customer care.

According to Hammann et al. (2009), employees are the most important internal stakeholder to firms; hence, workforce-oriented CSR activities refer to the activities that seek to improve the working conditions of the workers. This can be done by providing work-life balance, supporting employee involvement with community causes, committing to the health and safety of employees, encouraging employees to develop skills and long term career prospect and ensuring adequate steps are taken against all forms of discrimination (Hess, 2001; Jenkins, 2006; Madden et al., 2006). According to Vives (2006), it includes employee-oriented activities such as health and well-being of workers, training and participation in business, equality of opportunities, work-family relationship and corporate governance practices.

In the context of CSR, SMEs are more likely to contribute to their local communities compared with large companies (Murillo and Lozano, 2006; Moore and Spence, 2006; Andrés et al., 2012). Community-related CSR activities are related to the activities that are aimed to improve the welfare of the local communities in which a firm operates. Socially responsible businesses engage themselves in CSR initiatives by providing support for local events such as donations to charity, working with local schools projects and, sponsorships of community events (Worthington et al., 2006; Jenkins, 2006; Dzansi and Pretorius, 2009; Hess, 2001). Local community involvement can help to improve SMEs' corporate reputation and stakeholder relationship, image in the local community and greater employee loyalty and morale (Worthington et al., 2006).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

117

Environmental management has also received considerable attention in CSR strategies. Researchers have identified various approaches SMEs can undertake to minimize the negative impact arising from their business activities (Hess, 2001; Jenkins, 2006; Vives, 2006; Murillo and Lozano, 2006). This environment-oriented activities involve measures that SMEs implement to control the negative impact on environment such as reduction of energy consumption, reduction of waste, environmental reporting, green packaging, and reduction in atmospheric emissions (Hess, 2001; Vives, 2006; Jenkins, 2006; Murillo and Lozano, 2006; Madden et al., 2006).

In addition, the strong owner-manager relationship with their suppliers also might motivate SMEs to engage in CSR (Jenkins, 2006). This findings enhanced by Perrini et al. (2007) who found a positive attitude among SMEs in managing CSR strategies along the supply chain in Italy. As SMEs have strong owner–manager relationships with their suppliers, they concluded that these relationships seem to drive the integration of firm's strategy and CSR strategies.

Personal values of SME Owners-Managers

The role of owner-managers is considered enormously important in the context of CSR (Swanson, 2008). According to Godos-Díez et al. (2011), perception of owner-manager is important when a company is designing CSR activities. Without socially responsible managers, there could not be socially responsible firms. Owner-manager's personal values are one of the factors that influence CSR activities (Hemingway and Maclagan, 2004).

The influence of personal values on CSR decision making has been studied by many authors. For example, Hemingway and Maclagan (2004) studied the effects of a manager's personal values on their attitude and behaviour in CSR commitment. Shafer et al. (2007) suggests that collective values corresponding with stakeholder views will improve the welfare of people and employee morality in a company.

A number of empirical studies confirmed that personal values of the owner-manager can be a decisive motivator when planning for a social or environmental sustainability strategies. (Longenecker et al.,1989; Vives, 2006; Jenkins, 2006; Murillo and Lozano, 2006). In addition, past studies have identified ethical values and religious values as the important explanatory reason for the involvement of SMEs in social responsibility practices. Fuller and Tian (2006) found a close link between personal motives and ethics and the responsible behaviour in small businesses. Such ethical issues are openness and trust, religious-based references to ethics, selected relationships with suppliers, and honest dealings with employees (Russo and Perrini, 2010).

Theoretically, the concept of values has its root in moral philosophy and social psychology, which provided various definition and measurement for values (Sitaoja, 2006). A well-explored theoretical classification of values was presented by Spranger (1928). He postulated six classification of values namely, theoretical, economic, aesthetic, social, political and religious. Based on Spranger's six dimensions of values, Allport, Vernon and Lindzey (1960) further developed a profile of values across six categories. According to Allport et al. (1960), the *theoretical* person is primarily interested in the discovery of truth and systematized knowledge. His interests are rational, order, empirical and critical. The *economic* person is primarily oriented toward what is useful. This person is interested in practical affairs of the business world, in the use of economic resources; and in the accumulation of tangible wealth. The *aesthetic* person finds his chief interest in the artistic aspect of life, although he need not be a creative artist. He views experience in terms of grace, symmetry or harmony. The essential values of *social* person are love of people, which refer to the altruistic or *philanthropic* aspect of love. He values people as ends, and tends to be kind, sympathetic and unselfish. The *political* person is concern with personal power, not necessarily in politic, but in whatever area he functions. Most leaders have a high power orientation. The *religious* person is one whose mental structure is permanently directed to the creation of the highest and absolutely satisfying value experience. His dominant value is unity and, he seeks to relate himself to the universe in the meaningful way and has a mystical orientation.

Another popular theory of values is Rokeach's theory of values (1973) which focuses on personal values that influence an individual's behaviour in day-to-day life. Rokeach Value Survey (RVS) contains a set of eighteen instrumental values (comfortable life, an exciting life, sense of accomplishment, world at peace,

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

118

world of beauty, equality, family security, freedom, happiness, inner harmony, mature love, national security, salvation, self-respect, social recognition, true friendship and wisdom) and eighteen terminal values (ambitious, broadminded, capable, cheerful, clean, courageous, forgiving, helpful, honest, imaginative, independent, intellectual, logical, loving, obedient, polite, responsible and self controlled. Rokeach related instrumental values to modes of conduct and categorized the instrumental values as being moral or competence values. In contrast, terminal values were associated with end-states of existence and was categorized as personal or social values.

Schwartz (1992) incorporated Rokeach's theory of values into his definition of values. He defined values as a concept of beliefs, pertaining to desirable and end states or behaviours, and transcending specific situations. Values guide selection or evaluation of behaviour and events and, are ordered by relative importance. Based on Rokeach's (1973) lists of terminal and instrumental values, Schwartz and Bilsky (1987, 1990) positioned values as motivation for the fulfilment of basic human needs and identified fifty-six values that cluster that cluster into ten motivationally distinct values types. The ten basic values types are Self Direction, Stimulation, Hedonism, Achievement, Power, Security, Conformity, Tradition, Benevolence and Universalism.

People whose basic value is *self–direction* will have independent thought and action-choosing, creating and exploring, hence the representing values are creativity, freedom, independence, curiosity. The motivation goal of *stimulation* is to create excitement, novelty, and challenge in life, and the values under this category are daringness, a varied life, an exciting life. *Hedonism* refers to creating pleasure and sensuous gratification for oneself, and human will appreciate the values of pleasure and enjoyment in life. The motivation goal under *achievement* refers to personal success through demonstrating competence according to social standards, and the values under this category are successful, capable, ambitious, influential. Human who concerns for *power* is oriented toward social status and prestige, control or dominance over people and resources, hence, their values are on social power, authority, and wealth. The motivation goal of *security* is to create safety, harmony, and stability of society, of relationship, and of self. Hence they will value family security, national security, social order, cleanliness, reciprocation of favors. *Conformity* is the basic value in which its main motivation goal is restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms, hence, the values appeared under this category are politeness, obedience, self-discipline, honor parents and elders. The basic value of *tradition* refers to respect, commitment, and acceptance of the customs and ideals that traditional culture or religion imposes of the self. Values in this category are humble, acceptance of my portion in life, devotion, moderate and respect for tradition. The motivation goal for benevolence is preserving and enhancing the welfare of people with whom one is in frequent personal contact, hence they value helpfulness, honesty, forgiveness, loyalty and responsibility. People who value *universalism* will understand, appreciate, tolerate, and protect for the welfare of all people and nature. They tend to be broadminded and promoting wisdom, social justice, equality, a world at peace, unity with nature, and protecting the environment.

Among these four specific theories of values, the values structure formulated by Allport, Vernon and Lindzey (AVL) is proposed because their dimensions of values fulfil the special characteristic of SMEs owner-manager. To date, limited research has used the Allport-Vernon Lindzey concept of values (AVL) to examine personal values of owner-managers in adopting CSR practices. It seems logical that the values from AVL would be highly pertinent to understand psychological characteristics and values structure of SMEs owner-manager.

Proposed Conceptual Framework

Based on the discussion presented in the literature review, this paper proposes a conceptual framework to examine the relationship between stakeholders' drivers and CSR practices among Malaysian SMEs, which is moderated by SMEs owner's personal values.

Stakeholder's drivers comprise of employees, customers, local community and suppliers, whereas, CSR activities consist of four dimensions, namely customer-oriented activities, workforce-oriented activities, community-oriented activities and environmental-oriented activities. Personal values of SMEs are measured by Allport-Vernon Lindzey concept of values (AVL) categorized in six categories namely:

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

119

theoretical person, economic person, aesthetic person, social person, political person and religious person.

From the review on past literature, stakeholder's drivers like employees, customers, local community and suppliers are expected to affect SMEs to participate in CSR practices, and these effects are expected to be moderated by personal values of SMEs owners-managers. Figure 1 indicates the proposed conceptual framework for this research.
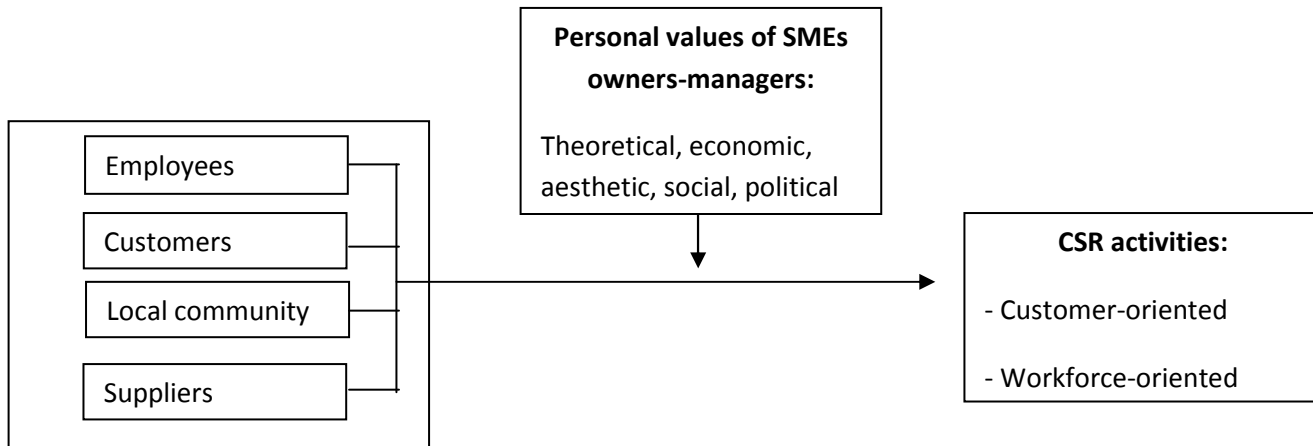
Figure 1

Proposed Conceptual Framework of the Present Paper

Methodology Implementation

This is a quantitative research using survey approach. The population comprises of SMEs in Malaysia. The sampling frame shall be obtained from Federation of Malaysian Manufacturers (FMM). Questionnaires will be distributed by mail to respondents who are SME owners that are randomly selected from the SMEs population.

Conclusion

Past studies on CSR in Malaysia have mainly focused on large companies and only limited research and empirical investigation are being conducted on SMEs involvement in social responsibility initiatives. Thus, there is a limited knowledge and information on SME-CSR involvement in the Malaysian context. This paper reviews the existing relationship between stakeholders and CSR activities among Malaysian SMEs. However, the direct relationship between stakeholder and CSR activities may be indefinite without investigating the personal values of SMEs owners-managers. By having a clearer understanding on personal values of SMEs owners-managers, it will allow future researchers to further explore on how to enhance Malaysian SMEs to participate in CSR activities.

References

Allport, G. W., Vernon, P. E. & Lindzey, G. (1960).. *Study of values. manual and test booklet* (3rd edition). Boston: Houghton Mifflin.

Amran, A. & Susela, S. (2008). The impact of government and foreign affiliate influence on corporate social reporting: The case of Malaysia, *Managerial Auditing Journal, 23*(4), 386-404.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

120

Andrés, F., Pérez, L., Polo, M. & Carrasco, V. (2012). Company image and corporate social responsibility: Reflecting with SMEs' managers. *Marketing Intelligence & Planning*, *30*, 266-280

Baden, D., Harwood, I. & Woodward, D. (2011) The effects of procurement policies on downstream CSR activity: content analytic insights into the views and actions of SME owner-manager. *International Small Business Journal, 29*(3), 259-277

Business in the Community (2002). Engaging SMEs in community and social issues. London: Business in the Community.

Carroll, A.B. (1979) A Three-Dimensional Conceptual Model of Corporate Social Performance, *Academy of Management Review, 4*, 497 – 505.

Dzansi, D.Y., Pretorius, M. (2009) Addressing and measuring small business social responsibility in the African context: a stakeholder framework. *Social Responsibility Journal. 5*(2), 245-256.

Devi, S. (2003) Corporate governance as an evolutionary process: a Malaysian perspective. *In United Nations Conference on Trade and Development.* United Nations: New York, 53-59.

Godos-Diez, J.L., Fernandez-Gago, R. & Martinez-Czmpollo, A. (2011) How Important Are CEOs to CSR Practices? An Analysis of the Mediating Effect of the Perceived Role of Ethics and Social Responsibility, *Journal of Business Ethics*, *98*(4), 531-548.

European Commission, (2001) *Promoting a European Framework for Corporate Social Responsibility: Green Paper* (Office for Official Publications of the European Communities, Luxembourg).

Fassin, Y., Van Rossem, A., & Buelens, M. (2011) Small-Business Owner-Managers' Perceptions of Business Ethics and CSR-Related Concepts. *Journal of Business Ethics*, *98*(3): 425-453.

Fuller, T. & Tian, Y. (2006) Social and Symbolic Capital and Responsible Entrepreneurship: An Empirical Investigation of SME Narrative, *Journal of Business Ethics*, 67, 287-304.

Hammann, E-M., Habisch, A. & Pechlaner, H. (2009) Values that create value: Socially responsible practices in SMEs-empirical evidence from German companies. *Business Ethics: A European Review 18* (1): 37-51.

Hemingway, C. A. & Maclagan, P. W. (2004) Managers' Personal Values as Drivers of Corporate Social Responsibility, *Journal of Business Ethics 50 (*1), 33-44.

Fassin, Y., Van Rossem, A. & Buelens, M. (2011) Small-business owner-managers' perceptions of business ethics and CSR-related concepts. *Business Ethics 98*, 425-453.

Hess, D. (2001) Regulating corporate social performance: a new look at social accounting, auditing and reporting, *Business Ethics Quarterly 11*(2), 307–330.

Jamali, D., Zanhour, M., & Kejishian, T. (2009) Peculiar Strengths and Relational Attributes of SMEs in the context of CSR. *Business Ethics 87*, 355-377.

Jenkins, H. (2004) A Critique of Conventional CSR Theory: An SME Perspective. *Journal of General Management 29*(4), 55-75.

Jenkin, H. (2006) Small business champion for corporate social responsibility. *Journal of Business Ethics*, *67(*3), 241- 256.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

121

Jenkin, H. (2009) A 'business opportunity' model for corporate social responsibility for small and medium-sized enterprise. *Business Ethics: A European Review, 1*, 1, 21-36

Kechiche, A. & Soparnot, R. (2012) CSR Within SMEs: Literature Review. International Business Research.

Lynch-Wood, G., Williamson, D. & Jenkins, W. (2009) The over-reliance on self regulation in CSR policy. *Business Ethics: A European Review 18* (1): 52 – 65.

Longenecker, J.G., Mckinney, J.A. & MooreE, C.W. (1989) Ethics in Small Business, *Journal of Small Business Management*, *27*(1), 27-31.

Luetkenhorst, W. (2004). Corporate Social Responsibility and the Development Agenda. *Inter Economics, 39*(3), 157 -168.

Madden K. Scaife W. & Crissman, K. (2006) How and why small to medium size enterprise (SMEs) engage with their communities: an Australia study, *International Journal of Nonprofit and Voluntary Sector Marketing*, *11*, 49 -60

Moore, G. (2001) Corporate social and financial performance: an investigation in UK supermarket industry, *Journal of Business Ethics 34*, 299-315.

Moore, G. and Spence, L. (2006). Editorial: Responsibility and Small Business. *Journal of Business Ethics, 67*(3), 219-226.

Murrillo, D. & Lozano, J. M. (2006). SMEs and CSR: An Approach to CSR in their Own words. *Journal of Business Ethics*, *67*(3), 227-240

Nik Ahmad, N., Sulaiman, M. & Siswantoro, D. (2003). Social Responsibility Disclosure in Malaysia: An Analysis of Annual Reports of KLSE Listed Companies. *IIUM Journal of Economics and Management*, *11(*1), 51-86.

Perrini, F, Russo, A. & Tencati, A. (2007) CSR strategies of SMEs and large firms: Evidence from Italy, *Journal of Business Ethics 74*, 285-300.

Preuss, L., & Perschke, J. (2010) Slipstreaming the Larger Boats: Social Responsibility inMedium-Sized Businesses. *Journal of Business Ethics*, *92*(4): 531-551.

Ramasamy, B. & Ting, H. W. (2004) A Comparative Analysis of Corporate Social Responsibility Awareness: Malaysia and Singaporean Firms. *Journal of Corporate Citizenship*, 109-123.

Rokeach, M.J. (1973) *The nature of Human Values*. The Free Press, New York.

Russo, A. & Perrini, F. (2010) Investigating stakeholder theory and social capital: CSR in Large Firms and SMEs, *Journal of Business Ethics*, *91*, 207-221.

Russo, A. & Tencati, A. (2009). Formal vs. informal CSR strategies: evidence from Italian micro, small, medium-sized and large firms. *Journal of Business Ethics, 85*, 339-353.

Santos, M. (2011). CSR in SMEs: Strategies, practices, motivations and obstacles. *Social Responsibility Journal*, 7(3), 490-508.

Schwartz, S.H. & Bilsky, W. (1987), Toward a Universal Psychological Structure of Human Values. *Journal of Personality and Social Psychology, 53*, 550-562.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

122

Schwartz, S.H. & Bilsky, W. (1990), Toward a Theory of the Universal Content and Structure of Values: Extensions and Cross-Cultural Replications. *Journal of Personality and Social Psychology*, 58, 878-891.

Schwartz, Shalom H. (1992) Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries," In M. Zanna, ed. *Advances in experimental social psychology,* 25, 1-65. New York: Academic Press.

Shafer, W.E., Lee, G.M. & Fukukawa, K. (2007). Values and the perceived importance of ethics and Social Responsibility: The U.S. versus China. *Journal of Business Ethics*, *70*(3), 265-284.

Siltaoja, M. E. (2006) Value priorities as combining core factors between CSR and reputation – A qualitative study, *Journal of Business Ethics, 68*(1), 91-111.

Spranger, E. (1928) Types of Men: The psychology and ethics of personality (P. J. W. Pigors, Trans.). Halle Germany: Max Niemeyer Verlag.

Spence, L. J. (2007) CSR and small business in a European policy context: The five 'C's of CSR and small business research agenda, *Business and Society Review*, *112,* 533-552.

Spence, L.J. & Lozano, J. F. (2000) Communicating about ethics with small firms: experiences from the UK and Spain. *Journal of Business Ethics, 27*(1), 43-53.

Swanson, D.L. (2008). *Top managers as drivers for corporate social responsibility.* In A. Crane et al. (eds.), The Oxford handbook of corporate social responsibility, 227-248. Oxford University Press, NY.

Teoh, H. Y. & Thong, G. (1984) Another Look at Corporate Social Responsibility and Reporting: An Empirical Study in a Developing Country. *Accounting, Organizations and Society.* *9*(2), 189-206.

Vives, A. (2006). Social and Environmental Responsibility in Small and Medium Enterprises in Latin America. *The Journal of Corporate Citizenship, 21*, 39-50.

Wan Abd Rahman, N., Mohamed Zain, M. and Yaakop Yahaya Al-Haj, N. (2011) CSR disclosure and it determinants: evidence from Malaysian government link companies. *Social Responsibility Journal*, *7*(2), 181-201.

Worthington et al. (2006) Exploring Corporate Social Responsibility in the U.K. Asian Small Business Community, *Journal of Business Ethics*, *67*,201-217.

Zulkifri, N. & Amran, A. (2006) Realising Corporate Social Responsibility in Malaysia: A View from the Accounting Profession, *The Journal of Corporate Citizenship, 24*, 101-114.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

123

The Acceptance of ICT applications by Tourists

Kuek Thiam Yong[a], Ng Yin Kuan[b], Fong Chee Yang[c], Lai Ka Fei[d],

Choong Yuen Onn[e]

[a]*Universiti Tunku Abdul Rahman, Malaysia, kuekty@utar.edu.my*
[b]*Universiti Tunku Abdul Rahman, Malaysia, ngyk@utar.edu.my*
[c]*Universiti Tunku Abdul Rahman, Malaysia, fongcy@utar.edu.my*
[d]*Universiti Tunku Abdul Rahman, Malaysia, laikf@utar.edu.my*
[e]*Universiti Tunku Abdul Rahman, Malaysia, choongyo@utar.edu.my*

Abstract

The rapid advancement of Internet towards information and communication technology (ICT) poses opportunities to tourism operators to capitalise on technology to improve their business processes and attract more customers. Towards this end, managers involve in tourism and hospitality industry need to identify the level of acceptance and factors affecting tourists' acceptance of e-tourism so as to create effective strategies in implementing e-tourism initiatives appropriately. This theoretical paper aims to establish a research model to investigate the acceptance level and factors affecting attitude and behaviour of tourists in (ICT) applications in supporting tourism and hospitality industry in Malaysia. It is in line with the objectives of Visit Malaysia Year to attract more foreign tourists to visit our country and increase revenue contribution from tourism sector. A research model is adapted from Revised Unified Theory of Acceptance and Use of Technology (UTAUT) through extensive literature review and reference to relevant research models such as Theory of Planned Behavior and UTAUT. Five factors have been identified to influence the attitude and behaviour of tourists in consideration of adopting e-tourism initiatives of tourism and hospitality operators. These factors are performance expectancy, effort expectancy, social influence, facilitating conditions and trust. The authors also highlighted the managerial and theoretical implications as well as the conclusion for this paper. Recommendations for future studies are put forth so that further tests can be done to validate this framework and provide managers a better understanding on the acceptance of ICT applications among tourists.

Keywords: ICT, tourist, e-tourism, Malaysia

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

124

Factors Influencing the Purchase Intention of Hybrid Cars among Malaysians (A Case of Honda Malaysia)

Padmashantini, P.[a] Gengeswari, K.,[b] Sofiah, K. K.[c] Yap, W. C.[d]

[a]*University Tunku Abdul Rahman, Department of Marketing, Faculty of Business and Finance, Perak Campus, Jalan Universiti, Bandar Barat, 31900 Kampar, Perak, Malaysia. Phone No: +605-5688888. E-mail: padmasp@utar.edu.my*

[b]*University Tunku Abdul Rahman, Department of Marketing, Faculty of Business and Finance, Perak Campus, Jalan Universiti, Bandar Barat, 31900 Kampar, Perak, Malaysia. Phone No: +605-5688888. E-mail: gengeswarik@utar.edu.my*

[c]*University Tunku Abdul Rahman, Department of Management, Faculty of Business and Finance, Perak Campus, Jalan Universiti, Bandar Barat, 31900 Kampar, Perak, Malaysia. Phone No: +605-5688888. E-mail: sofiah@utar.edu.my*

[d]*University Tunku Abdul Rahman, Department of Marketing, Faculty of Business and Finance, Perak Campus, Jalan Universiti, Bandar Barat, 31900 Kampar, Perak, Malaysia. Phone No: +605-5688888.* E-mail: VickyChyi77@1utar.my

Abstract

Purchase intention is measured as the customer's intention to purchase when the customer has the propensity to act on a product or service. A hybrid vehicle uses two different energy sources namely battery and petrol or diesel. This study has carried out an extensive research in the automobile industry both internationally and locally but very few have concentrated on the hybrid cars in Malaysia and none have concentrated on Honda hybrid cars. Thus, this study investigates factors which affect customer intention and its measures on hybrid cars in Klang Valley, Penang and Johor. 400 questionnaires were collected using self administered method from the three states where multiple regression analysis was utilized to explore the customer's purchase intention of hybrid cars in Malaysia. Findings indicate that social influence, price, perceived product quality, attitude and social value significantly influence customer's purchase intention of hybrid cars. Accordingly, several recommendations and implications were provided for future researches in line with the key findings of the study.

Keywords: Purchase intention, hybrid cars and Honda.

Introduction

Proton Saga was introduced in 1985 due to a joint venture between Mitsubishi Corporation (MC) and Heavy Industry Corporation of Malaysia (HICOM) (Henriksson, 2012) and subsequently, the second national car manufacturers Perodua (Perusahaan Otomobil Kedua Sdn. Bhd) opened its doors in 1994 (Mahidin & Kanageswary, 2004). Both the national car manufacturers have played an important part in increasing the demand for cars in the automobile industry by producing affordable cars for the local Malaysian market (MIDA, 2012). As a consequence, for the past 12 years, the Malaysian Automotive industry has been experiencing an average steady growth rate of 5.16% every year (Augustine, 2013). Accordingly, the Malaysian Government gives preference and importance to the automobile industry because of its economic contribution to the nation (MIDA, 2012).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

125

A hybrid vehicle is defined as a vehicle that uses two different energy sources, such as diesel/petrol and battery (Yong, Khan & Abdullah, 2013; Wong et al. 2013). The competitive nature of the automobile industry combined with the sensitivity of customers towards the environment has led to the development and introduction of hybrid cars to the world market. However, hybrid cars are not very popular and widely accepted by the Malaysian consumers. Proof of the low acceptance rate of hybrid cars as compared to non-hybrid cars can be seen in Table 1.

Table1: Sales of Hybrid Cars by Brands in Malaysia

Name of companies	Units of hybrid car sales (units)
Toyota	5,653
Lexus	979
Honda	8,712
Porsche	11

Source: The Star Online, 2013.

In Malaysia, the popularity of hybrid cars is due to the Government's subsidies and any other incentives. However, in the western countries, the popularity of hybrid cars is mainly related to the eco-friendliness of the customer itself (The Star Online, 2013). The sales of hybrid cars in Malaysia showed a positive growth in sales volume during the implementation of feed-in tariff which completely eliminated the import duty (The Star Online, 2013). Furthermore, the Malaysian government also reduced tax up to 50% for hybrid and electric cars below 2,000cc from 2011 till the end of 2013 (The Star Online, 2013). As a consequence, the sales of hybrid cars in Malaysia almost doubled from 8,403 units sold in 2011 to 15,355 units in year 2012 (The Star Online, 2013). The sales of hybrid cars versus the sales volume of non-hybrid cars in Malaysia from 2010 to 2013 are listed in Table 2. In addition, the sales of hybrid cars in Malaysia as of 2012 by a few popular manufacturers are listed in Table 3.

Table 2: Sales of Hybrid Cars vs Non-Hybrid Cars in Malaysia

Year	Total number of hybrid car sold (units)	Total number of Non-hybrid car sold (units)
2010	322	603,156
2011	8,403	600,123
2012	15,355	627,753
2013	18,967	655,793

Sources: Malaysia Automotive Association, 2014; Tan, 2014.

Table 3: Sales of Hybrid Cars By Manufacturers in 2012

Name of companies	Units of hybrid car sales (units)
Toyota	5,653
Lexus	979
Honda	8,712
Porsche	11

Source: The Star Online, 2013.

Although the sales volume of hybrid cars have increased from 2010, but it is relatively very low as compared to the sales volume of non-hybrid vehicles as stated in Table 2. Hence, only a very small number of customers have purchased hybrid cars in Malaysia. In addition, past researchers have carried out extensive research in the automobile industry both internationally and locally but very few have concentrated on the hybrid cars in Malaysia and none have concentrated on Honda hybrid cars. Thus, this study investigates factors which affect customer intentions to purchase hybrid cars in Klang Valley, Penang and Johor.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

126

Research Variables

Purchase Intention (PI)

Purchase intention is measured from the intention to buy when a customer has the propensity to act on an object (Kim & Kim, 2004). In most circumstances, intentions can be less reliable due to numerous factors influencing the actual behavior; however intention is still a good measurement for the current behavior (Jansson, Nordlund, & Marell, 2007). In another study by Madahi and Sukati (2012), purchase intention is defined as customer's preference to buy a product or service due to attitude, perception or needs towards the products or services. Meanwhile, Hou, Du, and Li, (2008) studies defined purchase intention as the existence of the possibility of customers to buy products and services. A final decision to accept or reject during the selection process depends on the customer's inherent intentions (Madahi & Sukati, 2012).

In addition, purchase intention represents a customer's cognitive behavior to purchase (Blackwell, Miniard, & Engel, 2001) and is a component of the customer's cognitive behavior (Hosein, 2012). Interest is one of the factors to be considered, where it is denoted as a personal feeling towards products and brands (Hosein, 2012). Since purchase intention is made up of feelings, thoughts, experiences and external factors (Asim, Tanvir & Shahid, 2012), thus, customer form specific interests on products and brands before purchasing them (Eze, Kwan, & Wamala, 2012).

Thus, for the purpose of this study, purchase intention is defined as the intention to buy (Madahi & Sukati, 2012; Kim & Kim, 2004) and cognitive behavior that one forms (Asim, Tanvir & Shahid, 2012; Eze et al., 2012; Hosein, 2012).

Social Influence (SI)

Social influence is a stimulant for customer to change their lifestyles and this affects the manner a customer reacts towards products and services (Mohd Noor, Sreenivasan, & Ismail, 2013). Social influence is defined as a social dynamic where a customer associates themselves with another person who has similar characteristics to them (Ryan, 2001). Sinnappan and Rahman (2011) also defined social influence as the sharing of common beliefs, thoughts and values with a person you are interacting with.

Normative belief comprises of perceptions and motivations to comply with the expectations of an individual's reference group such as family members and social circles (Ozaki & Sevastyanova, 2010). These customers are known as conformists as they would most likely follow the wishes and directions of the reference groups (Chua, Lee, & Sadeque, 2010). Hence, customers would most likely be influenced to drive the same car to be accepted, seen as compatible and equal with the other group members (Kressmann et al., 2006).

Furthermore, image is seen as a proxy to the social influence process as stated by Venkatesh and Davis (2000) and external environment is often used to validate a person's image (Homburg, Wieseke, & Kuehnl, 2010). Cars are able to give consumers a desirable status and in a professional setting social influence affects customer's purchase intention of hybrid cars (Chua, Lee, & Sadeque, 2010). In Chua, Lee, and Sadeque (2010), hybrid car buyers valued social-image more than the car's appeal and quality.

Thus, for the purpose of this study, social influence is defined as an individual's motivation to comply with his or her reference groups (Ozaki & Sevastyanova, 2010) in order to gain social approval (Karjaluoto & Leppäniemi, 2013; Hung et al., 2011) or form a social-image (Chua, Lee, & Sadeque, 2010).

Price

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

127

Customer usually will identify and evaluate prices of products and services because it helps them to simplify their purchase decisions (Watchravesringkan, 2005). According to Broekhuizen and Alsem, (2001), customers are willing to pay higher prices for customized products and services (Moon, Chadee, & Tikoo, 2008). Besides, price conscious customers are not willing to pay higher prices because they are more cost conscious (Pual, Gary, & Chieh, 2011). This is in line with the findings of Wind and Rangaswamy (2001) which claimed that search cost is considered as one of the components that affect the pricing of hybrid cars and customer's intention to purchase hybrid cars.

In the United States of America (USA), the local government implemented several incentives such as tax deductions up to $2000 and rebates to induce customers to purchase hybrid cars (Gallagher & Myuhlegger, 2008). According to Yong, Khan, and Abdullah (2013), tax incentives have a positive effect towards the adoption of hybrid vehicles among customers. In Malaysia, hybrid cars enjoyed tremendous sales growth due to the exemption of import and excise duties by the government until the end of 2013 (Star Online, 2013). Besides, prices of gasoline are positively related to the demand for fuel-efficient vehicles (Riggieri, 2011). Hybrid cars are fuel efficient and safer for the environment. The hike in fuel prices has significantly increased the demand for environmentally friendly vehicles in the USA as well as in Korea (Riggieri, 2011).

In conclusion, for the purpose of this study, price can be measured by government incentives (Gallagher & Myuhlegger, 2008) and gasoline price (Riggieri, 2011) which will affect customer's intention to purchase hybrid cars.

Perceived Product Quality

In general, product quality plays an important role towards a firm's profitability and enables firms to gain competitive advantage. According to Parasuraman, Zeithamal, and Berry (1998), perceived quality is viewed as the discrepancy between consumers' perception and expectations. By providing superior product quality, firms are able to satisfy customers (Chin, Khoo, Liew, & Shim, 2011). Besides that, perceived quality is a critical element considered by customers before purchase decisions are made (Jin & Suh, 2005).

Price-quality relationship is also one of the major factors that relate to perceived product quality (Armstrong & Chen, 2012). Customer will have doubts and perceive lower price products to be inferior in quality (Leavitt, 1954). Similarly, Verma & Gupta (2004) have accertained that customers show readiness to purchase products when it is priced higher in a particular product category.

Furthermore, a product's quality has a direct impact on its performance. The dimensions of product quality consist of packaging design, product features, and warranties and so on (Abdul-Muhmin, 2002). Higher product quality enhances customer's purchase decision and satisfaction (Kotler, Armstrong, Saunders, & Wong, 2005).

Thus, for purpose of this study, perceived product quality is defined as price-quality relationship (Armstrong & Chen, 2012) and actual quality of the product (Das, 2014).

Attitudes

Attitude is one of the main factors which influence consumers' willingness to purchase a product (Yong et al., 2013). Relative advantage is an element which is used to measure a customer's attitude towards a product or services (Yong et al., 2013; Jansson et al., 2007). Relative advantage can be defined as the adoption of brands new products by its customers (Hafizah & Kamil, 2009).

Yong et al., (2013) stated that compatibility is one of the attitudinal factors that influences a consumers' attitude in terms of purchase intentions towards eco-innovations. Nevertheless, Oliver & Lee (2010) stated that, customer's actively seek out green information which influences their attitudes before purchasing hybrid cars in Korea and U.S. On the other hand, compatibility can be defined as the degree of a product's fitness in regards to the customer's lifestylse and values (Armstrong & Kotler, 2012). The

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

128

study of Wu, Trappey and Feinberg (2010) proved a positive relationship between compatibility and consumers' attitudes. In addtion, Ozaki and Sevastyanova (2011) mentioned that, the degree of compatibility with the green values influences the attitudes of consumers greatly and are able to affect the purchase intention of hybrid cars.

Thus, in this study attitude will be defined as relative advantage (Tan & Teo, 2000), compatibility (Armstrong & Kotler, 2012) and pro-green values(Yong et al., 2013).

Social Value

Social value can be categorized as a judgement that is made according to the values such as ethics and moral values of the society (Clark & Weale, 2012).

Oliver and Lee (2010) stated that, the impact of social value can differ according to cultures such as individualism and collectivism. According to Wanto and Suryasaputra (2012), cultures are able to influence and control the behavior and understanding of an individual's purchase intentions.

Biron, Rumbold, and Faden (2012) mentioned that, moral values are deemed as the key ingredient of social values of a societies. Lee (2008) defined moral values as a standard or guideline which guides the behavior of customers in obtaining a product or service.

On the other hand, ethical values are the judgements that aid customers to evaluate their social values (Biron, Rumbold, & Faden, 2012). As referred to Neale and Fullerton (2010), ethical values are considered as the manner in which a customer acts according to the moral principles such as fairness, trust or justice. Ethics plays a significant role in the decision making process of customers (Ong, Arrifin, Bulathsinhalage, & Seneviratne, 2013).

Thus, in this study social values will be defined as cultural beliefs (Oliver & Lee, 2010), moral values (Lee, 2008) and ethical values (Biron, Rumbold, & Faden, 2012).

Methodology

This study has employed the quantitative approach where questionnaires were distributed using the person and self-administered method. The target population of this study was working adults from the age of 20 to 50 years old as they are financially stable and fall into the age category of working age population in Malaysia (World Bank, 2011). Klang Valley, Penang and Johor have been chosen to facilitate the study. Klang Valley consists of 10 areas inclusive of Kuala Lumpur and Selangor (Ministry of Federal Territorie, 2014). These three locations were picked because Kuala Lumpur has the greatest number of vehicle registration, followed by Johor, Selangor and Penang (Motor Trader Editorial Team, 2011).

According to Roscoe (1975); Choy, Ng and Ch'ng (2011) a minimum number of 30 and maximum number of 500 respondent are considered to be representative and suitable for most of the studies. Moreover, for research that consists of three to six independent variables, Cattell (1978) suggested that a minimum number of 250 sampling size is appropriate. Therefore, in this study, a total number of 400 sample size will be used in order to ensure the reliability and the accuracy of the statistical results.

The respondents were selected through the judgmental sampling technique, where researchers strictly only considered respondents who indicated that they intended to purchase hybrid cars. After the questionnaire was constructed, a pilot test was conducted by distributing 10 questionnaires each at Honda's service centers in Klang Valley, Perak and Johor totaling up to 30. The pilot study showed a good internal consistency with a Cronbach's alpha value of above 0.7636. Hence, the pilot study indicated that the questionnaire has facial validity and some minor amendments were made to the questionnaire based on the feedback from the respondents.

Data Analysis and Discussion

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

129

In this study, Cronbach's Alpha method was used to measure the reliability of each independent variables and dependent variable. According to Brown (2002), when Cronbach's Alpha is equal to .90, it indicates that the variables used in the test are 90% reliable.

Table 4: Reliability Statistics of Dependent and Independent Variables

Dependent Variable	Cronbach's Alpha	No. of item
Purchase Intention	0.909	3
Independent Variables	**Cronbach's Alpha**	**No. of item**
Social influence	0.905	3
Price	0.920	3
Perceived product quality	0.909	3
Attitude	0.905	3
Social value	0.909	3

Source: Developed for the research

Table 4 shows the result of the Cronbach's Alpha reliability test. The reliability for the dependent variable which is purchase intention has an alpha value of 0.909. Besides that, the independent variables which are social influence, price, perceived product quality, attitude, and social value possess an alpha value of more than 0.90. Hence, the variables used in this research are found to be reliable.

Multiple regression analysis (Table 5) was conducted to examine the impact of social influence, price, perceived product quality, attitude and social value towards the purchase intention of hybrid cars. On the whole, F=95.3 and p=<0.0001 show that the examined impact is significant where about 61.19% of variance in purchase intention of hybrid cars is explained by social influence, price, perceived product quality, attitude and social value.

The standardized estimate value shows the contribution of individual influencing factors towards the purchase intention of Honda's hybrid cars. Perceived product quality is the top key contributor (0.23776), followed by attitude (0.19862), price (0.19214), social influence (0.15575) and finally social value (0.13269). All these determinants are also significantly influencing the purchase intention of hybrid cars.

This is caused by customers who are quality conscious. The strong affect brought by perceived product quality is due to customers who mainly focus on the quality of the hybrid cars as compared to the other factors. The quality of Honda's hybrid cars represents the worthiness of the overall purchase decision. Therefore, perceived product quality has the strongest effect towards customer's purchase intention of Honda's hybrid cars.

Table 5: Multiple Regression Analysis

Benefits	ANOVA		Adjusted R²	Parameter Estimate	Std Estimate	t	P value
	F	P*					
(Constant)				0.68484	0	4.64	< .0001
Social Influence				0.14425	0.15575	2.49	0.0134
Price				0.17460	0.19214	3.88	0.0001
Perceived Product Quality	95.30	<0.0001	0.6119	0.23205	0.23776	4.10	< .0001
Attitude				0.17990	0.19862	3.14	0.0019
Social Value				0.10975	0.13269	2.20	0.0289

Conclusion and Implications

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

130

To brief, this study has probed the factors that influences the purchase intention of Honda's hybrid cars in Malaysia, particularly in Klang Valley, Johor and Penang. 400 questionnaires were collected to analyze data via multiple regression analysis and findings indicated that all determinants have significant influence on the purchase intention of hybrid cars.

This study has contributed a new research framework to further explore the purchase intention of hybrid cars among consumers in Malaysia and has enriched the existing literatures. This is due to; perceived product quality has been identified as the main variable with the most significant individual influence towards the purchase intention of hybrid cars in Penang, Johor and Klang Valley. Future researchers should probe further into the factors that have contributed towards the insignificance of social influence, price, attitude and social value towards the purchase intention of hybrid cars. As such, Honda should intensify the usage of social media to attract the consumer's attention since consumers rely on word-of-mouth communication messages posted of social media sites frequently. In addition, price should directly be associated and reflect the superior quality of Honda's hybrid cars to change the perception of consumers. Positive attitudes of consumers such as willingness to accept hybrid cars can be enhanced by educating customers on the long-term saving that can be obtained and also the positive impact that hybrid cars have on the environment cannot be undermined.

Besides, hybrid car manufacturers especially Honda, should emphasize on getting customers' involved during the manufacturing process of the hybrid cars. Customer's inputs should be taken seriously to improve the cars' design and other features which would fulfill the customers' needs and create positive attitudes that may increase the customer intention to purchase a hybrid car. Customers will judge the product quality by it's packaging design, product feature and warranties. Hence manufacturer should improve the design and other features in order to differentiate the hybrid car from their competitors and improve the hybrid car features to further increase the purchase intention of consumers.

Social influence plays an important role in influencing consumers' intention to purchase a hybrid car since consumers generally tend to seek approval for their actions from reference groups (Kramer, 2012; Hogg & Vaughan, 2002). Hence, marketers developing strategies or advertisements have to appeal to the social needs of consumers and this can be done via advertising using celebrity endorsers Rai (2013) and advertising through social networks as it is viewed as unbiased Lee (2013).

References

Abdul-Muhmin, A. (2002). Effect of suppliers' marketing program variables on industrial buyers' relationship statisfaction and commitment. *Journal of business & Industrial Marketing*, 637-649.

Armstrong, M., & Kotler, P., G. (2012). Consumer Purchase Intention. 204-213.

Asim, Tanvir & Shahid, M. (2012). Impact of Sports Sponsorship on Brand Image and Purchase Intention. *Interdisciplinary Journal of Contemporary Research in Business, 4(2),* 659 – 667.

Augustin, D. (2013, April). Overview of the Malaysian Automotive Industry - 2013 and Beyond. Shares Investment. Retrieved from http://www.sharesinv.com/articles/2013/04/24/overview-of-the-malaysianautomotive-industry%E2%80%932013-and-beyond

Blackwell, R. D., Miniard, P. W., & Engel, J. F. (2001)*. Consumer behavior 9th.* Mason, OH, South-Western.

Biron, L., Rumbold, B., Faden, R. (2012). Social value judgements in health care. *Journal of Health Organization and Management, 26(3),* 317-327.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

131

Broekhuizen, T. L., & Alsem, K. J. (2001). Success factor for mas customization: A conceptual model. *Journal of Market-Focued Management 5(4)*, 309.

Chin, Y. H., Khoo, K. J., Liew, Z. Y., & Shim, C. W. (2011). Modelling purchase intention of toyota automobile using sem teachnique.

Clark, s., & Weale, A. (2012). Social Values in Health Priority Setting: *A Conceptual framework 5* . 294-298.

Chua, W.Y., Lee, A., & Sadeque, S. (2010). Why Do People Buy Hybrid Car?. In Proceedings of Social Marketing Forum , University of Western Australia, Perth, Western Australia, Edith Cowan University, Churchlands, W.A., pp.1-13

Das, G. (2014). Linkages of retailer personality,perceived quality and purchase intention with retailer loyalty: A study of indian non-food retailing. *Journal of Retailing and Consumer Services*, 407-414.

Eze, U. C., Kwan, P, Y., & Wamala, F. (2012). Analyzing the Intention to Purchase Proton Automobiles: Preliminary Findings. *Contemporary Management Research, 8(4),* 267 – 274.

Henriksson, J. M. (2012). The Malaysian Automotive Sector. Istituto nazionale per il Commercio Estero. Retrieved from: http://www.docstoc.com/docs/149156347/The-Malaysian-Automotive-Sector1---Ice.

Gallagher, K. S., & Myuhlegger, E. (2008). Givin green to get green: Incentive and consumer adoption of hybrid vechile technology. *Faculty Research Working Papers Series.*

Hafizah, M. H., & Kamil, M. I. (2009). E-learning adoption. *The Role of Relative Advantages, Trialability and Academic Specialization* , 59-61.

Homburg, C., Wieseke, J. & Kuehnl, C. (2010). Social influence on salespeople's adoption of sales technology: a multilevel analysis. *Journal of the Academy Marketing Science, 38,* 159-68.

Hosein, N. Z., (2012). Measuring the Purchase Intention of Visitors to the Auto Show. *Journal of Management & Marketing Research, 9(1),* 1- 17.

Hou, J., Du, L., & Li, J. (2008). Cause's attributes influencing consumer's purchasing intention: Empirical evidence from China. *Asia Pacific Journal of Marketing and Logistics*, *20(4)*, 363-380.

Jansson, J., Nordlund, A., & Marell, A. (2007). International market break-through for flexible fuel vehicles: A comparison of Swedish and Spanish data on ecological worldview and purchase intentions. Paper presented at Academy for Global Business Advancement (AGBA) Fourth Annual World Congress, Universiti Sains Malaysia (USM), Penang, Malaysia.

Jin, B., & Suh, Y. G. (2005). Integrating effect of consumer perception factor in predicting private brand purchase in Korean discount store context. *Journal of Consumer Marketing 22(2/3)*, 62.

Karjaluoto, H., & Leppäniemi, K. (2013). Social Identity for Teenagers: Understanding Behavioral Intention to Participate in Virtual World Environment. *Journal of Theoretical and Applied Electronic Commerce Research, 8(1),* 1-16.

Kim, E. Y., & Kim, Y. K. (2004). Predicting online purchase intentions for clothing products. *European Journal of Marketing, 38*(7), 883-897.

Kotler, P., G. Armstrong, 2012. Principles of marketing, (14th ed). London Pearson.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

132

Kramer, M. (2012), The unravelling of apparel: online shopping behavior, *Reinvention: a Journal of Undergraduate Research*, 5(1). Retrieved August 10, 2014 from: http://www2.warwick.ac.uk/fac/cross_fac/iatl/reinvention/issues/volume5issue1/kramer/

Kressmann. F., Sirgy. M. J., Herrmann. A., Huber. J., Huber, S., & Lee, D. J. (2006). Direct and indirect effects of self-image congruence on brand loyalty. *Journal of Business Research*, *59,* 955–964.

Lee, S. (2008). Influence of Moral View and Other Variables on Purchase Intention Concerning Counterfeits. 11-13.

Malaysian Investment Development Authority. (2012). Business Opportunities – Malaysia's Automotive Industry. Transport Industry Division. Retrieved from: http://www.mida.gov.my/env3/uploads/publications_pdf/BO_Malaysia Automotive/Automotive2012.pdf

Madahi, A., & Sukati, I. (2012). The Effect of External Factors on Purchase Intention amongst Young Generation in Malaysia. *International Business Research*, *5(8),* 153 – 159.

Mahidin, M.U., & Kanageswary, R. (2004). The Development of the Automobile Industry and the Road Ahead*.* Department of Statistics Malaysia. Retrieved from: http://www.statistics.gov.my/portal/images/stories/files/journal/V204_AUTOMOBILE.pdf

Ministry of Federal Territorie. (2014). *Official Website of Greater Kuala Lumpur/Klang Valley*. Retrieved May 7, 2014 from http://app.kwpkb.gov.my/greaterklkv/

Mohd Noor, M. N., Sreenivasan, J., & Ismail, H. (2013). Malaysian Consumers Attitude towards Mobile Advertising, the Role of Permission and Its Impact on Purchase Intention: A Structural Equation Modeling Approach. *Asian Social Science*, *9(5),* 135 – 153.

Motor Trader Editorial Team. (2011, February 26). *21.25 million vehicles on Malaysian roads*. Retrieved May 7, 2014, from http://www.motortrader.com.my/news/21-25-million-vehicles-on-malaysianroads/

Moon, J. Y., Chadee, D., & Tikoo, S. (2008). Culture,product type,and price influence on consumer purchase intention to buy personalized product online. *Journal of Business Rearch 61(1)*, 31-39.

Oliver, J. D., & Lee, S.-H. (2010). Hybrid car purchase intentions: a cross-cultural analysis. *Journal of consumer marketing 27(20)* 96-100.

Ong, D. L., Arrifin, A. K., Bulathsinhalage, C. N., & Seneviratne, L. A. (2013). The Influence of Materialistic and Ethical Values on the Purchase Intention of Counterfeit Luxury Goods: The Case of Malaysian Undergraduates. *Journal of Marketing Research &Case Studies, 20(13),* 3-4.

Ozaki, R., & Sevastyanova, K. (2010). Going hybrid: An analysis of consumer purchase motivations. *Energy Policy*, *39*, 2217–2227

Ozaki, R., & Sevastyanova, K. (2011). Going hybrid: An analysis of consumer purchase motivations. Energy Policy, 39: 2217-2227.

Parasuraman, A., Zeithamal, V. A., & Berry, L. L. (1998). Reassessment of expections as a comparison standard in measuring service quality: Implication for further research.

Pual, C., Gary, Y.-Y. Y., & Chieh, R. H. (2011). The effect of store image and service quality on brand image and purchase intention for private label brands. *Australasian Markting Journal*, 30-39.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

133

Ryan, A. M. (2001). The peer group as a context for development of young adolescent motivation and achievement. *Child Development*, *72(4),* 1135 – 1150.

Riggieri, A. (2011). The impact of hybrid electri vehicles incentives on demand and the determinants of hybrid-vihicle adoption. *A Dissertation Presented to The Academic Faculty*.

Sinnappan, P., & Rahman, A, A. (2011). Antecedents of Green Purchase Behavior among Malaysian Consumers. *International Business Management*, *5(3),* 129-139.

Tan, M., & H.S. Teoh, 2000. Factors influencing the adoption of internet banking. Journal of Association for Information Systems, 1(1): 1-42.

The Star Online. (2013). Drive on hybrid car may falter. Retrieved from http://www.thestar.com.my/News/Nation/2013/12/29/Drive-on-hybridcars-   may-falter-Industry-players-want-tax-exemption-extended/

Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science, 46(2),* 186 – 204.

Verma, D. P., & Gupta, S. S. (2004). Does Higher price signal better quality. *The Journal for Decision Makers 19(2).*

Wanto, H. S., & Suryasaputra, R. (2012). The Effect of organizational Cultures and Organizational Learning Towards the Competitive Strategy and Company Performance. *Information Management and Business Review, 4(9),* 470.

Watchravesringkan, K. (2005). A hierarchical model of value,price perception,ongoing search and shooping behavior: A cross-cultural comparison. *School Of Family and Consumer Sciences*, 20-360.

Wind, J., & Rangaswamy, A. R. (2001). Customerization:The next revolution in mass customerization. *Journal of Interactive Marketing 15(1).*

Wong, L. S., Wong, T. S., Wong, K. L., & Lim, J. M. (2013). Hybrid vehicle adoption- A conceptual study. *Journal of Education and Vocational Research, 4 (6)*, 165-168.

World Bank. (2011). *Ge dependency ratio (% of workingage population) in Malaysia.* Retrieved May 7, 2014, from: http://www.tradingeconomics.com/malaysia/age-dependency-ratio-percent-ofworking-age-population-wb-data.html

Wu, Y.H., V.C. Trappey, A.R. Feinberg, 2010. The diffusion of innovation and perceived risk for the adoption of alternative energy vehicles. *International Journal of Innovation and Learning, 8(3)*, 296-314.

Yong, H. H., Khan, N., & Abdullah, M. M. (2013). The Determinants of Hybrid Vehicle Adoption: Malaysia Perspective. *Australian Journal of Basic and Applied Sciences 7(8),* 448-450.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

134

The Factors Impact on Employee Retention in Semiconductor Industry

Peter Sin-Howe Tan[a], Cea-Dy Tan[b], Sin-Ling Chia[c], Yee-Von Lee[d], Geok-Sim Ooi[e], Siew-Poh Tan[f]

Department of Business, Faculty of Business and Finance,

Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia.

[a]shtan@utar.edu.my, [b]sheirytan@1utar.my, [c]chiasl6@1utar.my, [d]leeyeevon@1utar.my,

[e]yixin92@1utar.my, [f]tansp20@1utar.my

Abstract

Employee retention is a critical issue for companies to maintain existed and capable of competitive in market. The past literatures have evidenced that there are numbers of common researches being conducted in industry such as hotel industry and fast food industry but less specify in semiconductor industry. Based on the latest industry report, there are tendency of employee shortage in semiconductor industry in Malaysia. In view of the lack of research study in semiconductor industry, this research is being conducted to investigate the factors that influence the retention of semiconductor's employees. This research is vital because the circumstance of semiconductor industry in Malaysia is optimistic and well-developed as revenue generator for Malaysia's economy growth. This research involved semiconductor companies located in the state of Penang and Selangor. There are total of 384 questionnaires being distributed by using the method of paper survey and online survey. All the usable survey data were analysed using Pearson's correlation and multiple regression analysis. Theoretical and practical implications were discussed based on the study findings and recommendations for future research were presented in this paper.

Keywords: Employee retention, semiconductor industry, manufacturing, Malaysia
_____

Introduction

According to Department statistic of Malaysia (2014), semiconductor industry is the main sub-industry from manufacturing industry. Semiconductor industry becomes our target industry research due to its tendency as economy trigger in Malaysia, which contribute the sales value of RM 5,562.1 million out from total sales value of manufacturing industry, which is RM 56.1 billion. Semiconductor industry grow broaden all the way due to its relationship with our daily life, which now we are more rely on high technology equipment such as tablet, smart phone, high definition LCD television, and smart clothing washing machine. Manufacturing industry had 24% rate of turnover, conglomerates at 14%, business process outsourcing at 19%, and lastly financial services at 13.3%. Towers Watson's 2012 Global Workforce Study exposed that 51% of Malaysian employee to change to another company is that they want to advance in their career and achieve higher job level. Besides that, 83% of employees are willing to do this. According to Dr. John Sullivan, an HR advisor Fortune 500 and Silicon Valley firms, new job opportunity is getting a lot and it is more convenience to apply for the job through online only.

If the employees keep move out from companies, companies have to spend money and time to re-hire and re-train the new coming employees again and again, which it brings negative effects to

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

135

companies in long term period. (Coetzee & Pauw, 2013). If a business shortfall of talented employees such as the employee skills, experience and "corporate memory" will losses at the same time. The effect of these losses is an important management problem which influences productivity, profitability, and product and service quality. The main objective of this research is to identify the factors that impact on employee retention in semiconductor industry. By understanding the impact of these factors on employee retention, the organization can make some improvements on it in order to increase the probability of attracting talented employee and reduce organization turnover rate as well. This research, it enables the government to pay more attention on those factors that need support from government.

Literature Review

Employee Retention

Retention begins at the top. It is the responsibility of employee in sourcing, hiring and retaining motivated employee. Retention is an important management outcome in order to obtain and keep good employee demands focused. According to Lockwood (2006), retention is more common method to talent management which is regard as critical element of organizations as it is the execution of amalgamated tactics or systems created to improve work productivity through processes to entice, developing, and maintaining and leverage employee with the required skills and capacity to fulfill current and future business need. In order to understand the balance of people maintain with the firm is determined through the comparison the "deal" offered by own company they work for and by other companies such the pay, career growth and development, leadership people, the company itself and the interest, creative work which are categorized as total rewards. (Steel et al., 2002) Blanket retention policy is a drawback to company if they apply to all employees in spites of their level of performance.

Compensation, Benefits Management & Reward System

According to Wills (2000), compensation is regard as a more vital factor to attract and retain the talent. According to Parker and Wright (2001) proposed that impartial salary is the key factor of the implicit and predetermined ties between employers and employees. The core assumption that financial incentives can change behaviour and hence company always propose high wage packages such as stock options, specific pay, retention pay, gain share pay, performance based pay, bonuses and so on. According to Beardwell and Holden (1997), benefits like company cars for work matters and special clothes are compulsory for workers in doing their routine work. Reward is very essential as it has eternal notion on employees and advocates the sensitivity of employee that they are appreciated (Silbert, 2005).

Company which practice compensation strategies always have a competitive advantage by improving their capabilities to entice and keep employees. Complex of compensation system in term of scope and administrative is continuously improved and the employee attention in benefit cost constraint. (Bergmann & Grhn, 1994 as cited in Fatima, 2011). According to Lawrer (1990), company who provide high compensation packages than the other company would attract many of applicants to applied for the job and have lower turnover rates. Besides that, culture of excellence could be created as a result the high compensation packages. Compensation, benefits management and reward system are known to entice employee to remain with the organization with many studies to support it. (Tangthong, Trimetsoontorn, & Rojnirutikul, 2014; Wills, 2000).

Training & Development

According to Tangthong, Trimetsoontorn and Rojniruntikul (2014), training and development refer to the expanding of knowledge, skills and attitudes which are needed by employees to carry out equally on a task or job systematically. Outstanding knowledge, skills, abilities, and behaviour of employees can be led by using training and development, thus enhancing superb performance either financial or non-financial of the particular company. According to Gomez et al, (1995), the deficiencies of employee performance can be rectify through training as training provides particular technique and skills to employee, whereas development provide skills and abilities to employee for their future use in the company. Ratna and Chawla (2012) point out that the importance of training is due to it gives employee the knowledge about the plans, which they have to sell, and it also assist them in connecting to their company.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

136

Besides that, the proof would like to ensure that the relationship between retention and training is very strong for those highly skilled workers (Kaiser & Hawk, 2001; Pare et al, 2000 as cited in Ghansah 2011). In fact, training able to aided to lower down the turnover rate and assumed as significant factor in employee retention (Wetland, 2003). It has been recommended that training and development are considered to be the primary tools for "retention" due to the training and development is so essential to the operation of a business.

Organizational Culture

Schein (1999) recommends that organizational culture is more important in nowadays. It becomes more important because it can maximize the employee's value as intellectual assets. Organizational culture also helps to support of teamwork and various workforce developments and to promote their knowledgeable involvement and facilitates individual and organizational learning culture, creation of knowledge and the willingness of individuals to share ideas and knowledge among each other. Values considered as the basis of organizational culture. It could affect an organization and provide employees direction in their daily life and the behaviour (Deal & Kennedy, 1982). Organizational culture indicates that individuals who is more likely to stay in the organization if they perceived organizational culture is a good fit and can be adapt with the employee's interests, orientation ,attitudes and behaviour (DiPietro & Milman, 2004).

Researchers have also reported that there is a relationship between organizational culture and employee retention in different settings. According to Lok and Crawford (2004) there is a positive effect of organizational culture on employee retention. Zhao, Wayne, Glibkowski and Bravo (2007) suggest that culture in the organization rather than compensation and reward, will also attracting employee and keeping them comfortable and thus they will decide to remain with the organization depends on how they adapt in the organization, how the organization treats them and how employee relate themselves to one another in the work.

Leadership Style

According to Gonos and Gallo (2013), management is kind of decision making, planning, controlling, organizing, coordinating and offering jobs to people that capable, or driven them to act better at work. These functions of management cannot be performed well, if the manager insufficient of the ability to lead people and cannot understand which human factors affect the achievement of the wanted results. Leadership also involved in management which may useful in raising the efficiency of organizational. Leadership also define as weapon: tools to meet and an objectives, and even attitude (Limsila & Ogunlana, 2007).

Chew (2004) determines and shows that leadership behavior has influence on organizational commitment and turnover intention. Muindi (2011) said that leadership style, specifically lack of involvement in decision making and wrong communication skill can cause dissatisfaction happen. Therefore literature proven that leadership style is crucial in staff retention.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

137

Conceptual Research Framework
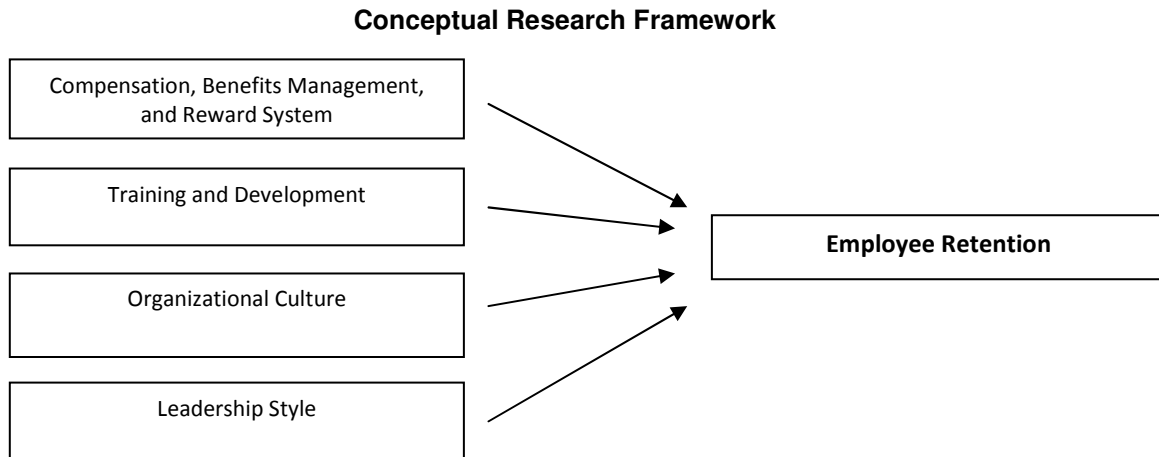
Figure 1. A Conceptual Research Framework

Based on the literature review stated above, a conceptual framework is established to study the factors impacts on employee retention. This is shown in figure 1.

Methodology

This research used descriptive research, quantitative research, primary data and secondary data to analyse collected data. In this research, any employees in semiconductor industry will be researchers target respondents to investigate their intention to stay in their current companies. In this research, any employees in semiconductor industry will be our target respondents to investigate their intention to stay in their current companies. In our range, there is average of 88,754 of semiconductor employee in Malaysia. There are 384 questionnaires being distributed in Penang and Selangor and the sample size is 384.

Researchers used questionnaires to know factors that impact on employee retention. In this research, any employees in semiconductor industry will be researchers target respondents to investigate their intention to stay in their current companies. We target the semiconductor companies in Penang and Selangor as researchers sampling location. It is because Penang is the symbolic area of semiconductor industry in Malaysia, and there are a lot of semiconductor companies due to the industrial free tax zone, thus it will make us easier to collect efficient data.

This research apply have used probability sampling technique as our research. Through this method, we are trying to obtain the respondent that is voluntary to fill in our questionnaires.

Results

From the 384 respondents, 225 of them are female and 159 of them are male. The highest age frequency is come from the respondents between 21 to 30 years old with 212 respondents or 55.2 % whereas the second highest frequency age group of respondents are between 31 to 40 years old with 68 respondents or 17.7 %. Most of the single respondents have the highest marital status frequency with 263 respondents or 68.5% followed by married respondents with 120 respondents or 31.2 %. The greatest number of respondents is Chinese with 229 respondents or 59.6 %, while Malay respondents are the second highest with 116 respondents or 30.2%. For the highest education levels of respondents come under Bachelor Degree with 204 respondents or 53.1 %.The other educational levels such as SPM gain the second highest respondents with 112 respondents or 29.9 %. Most of the income levels of the respondents come from the range RM2, 001 to RM3,000 with 124 respondents or 32.3%.It has been followed by income level in the range of RM 1,001 to RM2,000 with 83 respondents or 21.6 %.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

138

Table 1. Reliability Test

Dimensions	Cronbach's Alpha	Number of Items
Compensation, Benefits Management, and Reward System	0.941	5
Training and Development	0.792	5
Organizational Culture	0.875	5
Leadership Style	0.750	5
Employee Retention	0.704	7

Among 5 constructs, compensation, benefits management and reward system has the highest score of Cronbach's Alpha of 0.941, follow by training and development which is 0.792, organizational culture 0.875, leadership style 0.750, and lastly employee retention Cronbach's alpha with 0.704. From Internal Reliability Test, it portrays that all the variables are stability and reliability as the coefficient alpha values of the variables fall between 0.70 and 0.94. Hence, all the constructs show a Cronbach's Alpha value more than 0.6 means that all the variables imply consistencies and stabilities of the measurement in this research.

Table 2. Pearson Correlation Analysis

		Employee Retention
Compensation, Benefits Management, and Reward System	Pearson Correlation =	.602**
	Sig. (2-tailed) =	<.0001
	N =	384
Training and Development	Pearson Correlation =	.182**
	Sig. (2-tailed) =	<.0001
	N =	384
Organizational Culture	Pearson Correlation =	631**
	Sig. (2-tailed) =	<.0001
	N	384
Leadership Style	Pearson Correlation =	415**
	Sig. (2-tailed) =	<.0001
	N =	384

The result showed that the four independent variables are found to have positive significant relationship with employee retention. From the result, the highest correlation coefficient is the relationship between employee retention and organizational culture which is 0.631, whereas the second highest correlation coefficient is the relationship between employee retention and compensation, benefits management and reward system which is 0.602. The correlation coefficient of the relationship between employee retention towards training and development as well as the leadership style was found to be 0.182 and 0.415 respectively at P value < 0.05.

Table 3. Model Summary of R-Squuare

Root MSE	0.37182	R-Square	0.4816
Dependent Mean	3.34933	Adjusted R-Square	0.4762
Coefficient Variance	11.10129		

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

139

Table 4. Parameter Estimate

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > [t]
Intercept	1	1.18065	0.18946	6.23	<.0001
CBR	1	0.18602	0.04034	4.61	<.0001
TD	1	0.13106	0.03093	4.24	<.0001
OC	1	0.44042	0.05731	7.68	<.0001
LS	1	-0.19013	0.05600	-3.40	0.0008

The result we obtain showing that the highest regression coefficient is (β =1.18065) for employee retention followed by the second highest variable which is organizational culture (β = 0.44042), compensation benefits management and reward system (β =0.18602), training and development (β=0.13106), and the lowest was leadership style (β = -0.19013). Besides that, the R-square with the value of 0.482 which mean 48.20% indicated that the independent variables (Compensation benefits management and reward system, training and development organizational culture and leadership style) have been significantly impact on the employee retention.

Implications

Theoretical

These researches are constructed with a model which integrates the variables that will impact on employee retention in the semiconductor industry. This research shown that compensation, benefits management and reward system is the independent variable which contribute the most to employee retention in contrast to others. There is not much researcher discussed in this area, the research framework is significant for nowadays scenario and serve as guidance to organization in semiconductor industry improve its employee retention.

Managerial

Through the finding, this research will provide useful information for organization or management to understand more on the strategies to improve their employee retention strategy. This research discovers on how employees in the organization perceive the importance of compensation, benefits management and reward system, training and development, leadership style and organizational culture factors when they choose to remained and work longer with the company. These determinants can be considered as strategy that can be utilized by the organization nowadays to retain their employees in the organization.

Discussion and Conclusion

During the research process, there are a few limitations of the study being identified. The researcher suggest that respondents from large geographical locations such as all the states in Peninsular Malaysia, Sabah and Sarawak will generates more reliability result. Future research also can emphasize on non-manufacturing sectors that deals with the same problems of low employee retention. Others independent variables or push or pull factors also can be included in the future research purpose to forecast and identify the actual factors of employee retention in semiconductor industry add on more variables such person job fit, effective communication from management to employee and a clear vision and mission may have impact on employee retention.

In nutshell, that the companies in semiconductor industry an applying the proposed dimensions to improve employee retention. Firstly, the company must certain that that they offer competitive compensation which can reduce the cost of hiring new employees and especially the resignation of employees, company also should offer attract benefits packages to secure employee will not leave the firm in the future and given rewards to those employees who had perform outstanding. Secondly, the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

140

company should engage employee in personal developments to increase their retention. Thirdly, company should have a good organizational culture to make employee felt they are being cherished and thought their contributions are significant. Lastly, company should practice good leadership styles to increase the motivation of employee which indirectly will improve employee retention.

Reference

Chew, J. C. L. (2004). *The influence of human resource management practices on the retention of core employees of Australian organisations: An empirical study* (Doctoral dissertation, Murdoch University).

Coetzee, M. & Pauw, D. (2013). Staff Perception of Leader Emotional Competency as a Predictor of Satisfaction with Retention Factors. *Journal of Psychology in Africa, 23(2)*, 177-186.

Deal, T., & Kennedy, A. (1982). A Corporate Culture. Reading, M. A. Addison Wesley.

DiPietro, R. B., & Milman, A. (2004). Hourly employee retention factors in the quick service restaurant industry. *International journal of hospitality & tourism administration*, *5*(4), 31-51.

Ghansah, E. (2011). The Role of Employee Retention on Job Performance: A Case Study of Accra Brewery Company Limited, Accra. Master Thesis, Kwame Nkrumah University of Science and Technology.

Gomez-Mejia, L. R., Balkin, D. B., & Cardy, R. L. (1995). Managing human resources. Prentice Hall.

Gonos, J. & Gallo, P. (2013). Model for Leadership Style Evaluation. *Journal of Contemporary Management Issues, 18(2)*, 157-168.

Limsila, K., & Ogunlana, S. O. (2008). Performance and leadership outcome correlates of leadership styles and subordinate commitment. *Engineering, construction and architectural management*, *15*(2), 164-184.

Lok, P., & Crawford, J. (2004). The effect of organisational culture and leadership style on job satisfaction and organisational commitment: A cross-national comparison. *Journal of Management Development*, *23*(4), 321-338.

Muindi, F. K. (2011). The Relationship between Participation in Decision Making and Job Satisfaction among Academic Staff in the School of Business, University of Nairobi. *Journal of Human Resource Management Research*.

Parker, O., & Wright, L. (2001). PAY AND EMPLOYEE COMMITMENT: THE MISSING LINK-The company that enhances compensation conditions and practices will likely see an improvement in employee commitment. *Ivey Business Journal*, *65*(3), 70-73.

Schein, E. H. (1999). The corporate culture survival guide.

Silbert, L. (2005). The Effect of Tangible Rewards on Perceived Organizational Support.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

141

Tangthong, S., Trimetsoontorn, J., & Rojniruntikul, N. (2014). HRM Practices and Employee Retention in Thailand – A Literature Review. *International Journal of Trade, Economics and Finance, 5(2)*, 162-166.

Wentland, D. (2003). The strategic training of employees model: balancing organizational constraints and training content. SAM Advanced Management Journal, 68(1), 56-64.

Zhao, H. A. O., Wayne, S. J., Glibkowski, B. C., & Bravo, J. (2007). The impact of psychological contract breach on work-related outcomes: a meta-analysis.*Personnel Psychology*, *60*(3), 647-680.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

142

Why they leave?
A Study on Non-monetary factors in Malaysia's Private Higher Education Institutions

Kim Yeng-Wong[a], Onn-Jian-Chia[b], Hwai Jun-Ong[c], Pui Man-Siaw[d], Kok Pong-Yau[e], Chee Wee-Tee[f]

Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Malaysia

Massive_91@hotmail.com, coj_onnj@hotmail.com, hwaijun_ong@hotmail.com, puiman025@hotmail.co.uk, kokpong_yau@hotmail.com.my, teecw@utar.edu.my

Abstract

In line with the government's 10ᵗʰ Malaysia plan, the higher education institutions play an important role to cultivate and develop our future human capital. However, the high job hopping and the turnover rate gradually become a concerned in private institutions. The report from Department Statistics Malaysia showed that Gen Ys was the highest cohort who reported to leave from their current organization. Therefore, in order to create a high quality and sustainable environment for students, private higher education institutions should utmost effort to reduce the employee's turnover rate. Simultaneously, understand their characteristics, needs and desires towards their job. It is no doubt that monetary was the prime factor to influence the turnover rate. However, instead of monetary factors, Gen Ys was prefer the non-monetary satisfaction if compared with previous generation. In line with that this study was proposed four non-monetary factors such as performance appraisal, training and development, work-life balance and benefits. By conducting this study, the private higher education institutions will be able to execute the appropriate approaches to retain their young talented employees. Finally, through the proposed framework and research outcomes, this study would provide in-depth understanding about the characteristics of Gen Ys and the non-monetary factors which caused them to leave from their current employer.

Keywords: Turnover Intention, Performance Appraisal, Training and Development, Work-life balance, Benefits

Introduction

In this rapid changing era, organization norms are quickly beginning to shift and adapt to current trends of the new modern workforce. Generation Y (Gen Y) will gradually dominated the workforce in coming decade to replace Baby boomers who are getting retired soon. Gen Y is the newest generation that entered to nowadays workforce. This generation is also called as the Net Generation or Millennial Generation (Hicks, 2007). Gen Y believes that the workplace has important values for them to learning and development (Long, Perumal & Ajagbe, 2012). Besides, Gen Y tends to balance their life with work and non-work job. They are multitasking and tecno-savvy (Na'Desh, 2008). They are trying to complete their task in shorter period with efficient and effective (Engelman, 2009). Overall, their characteristics, perceptions, behaviour and desires are much more different with previous generations like Gen X and Baby boomers.

In line with the government's 10ᵗʰ Malaysia plan which implemented in 2011, the higher education institutions begin play an important role to cultivate and develop our future human capital. According to the report from Department of Statistics Malaysia 2012, there have approximately 840,000 people involved in higher education industry across Malaysia public and private higher education institutions. To

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

143

date, there are 20 public universities, 33 private universities and university college, 4 foreign university branch campuses, 22 polytechnics, 37 community colleges and about 500 private colleges are registered under Ministry of Higher Education (MOHE). Recently, the turnover rate of employees were increasing in higher education industry which increased from 2012 (7.4%) to 2013 (13.3%) (Tower Watson, 2014). The high job hopping and the turnover rate gradually become a concerned especially in private education institutions. In fact, most of the private higher education institutions are taking more fresh blood (Gen Y) into their institution. However, Gen Ys has their different perceptions in their career desires, they are always seek for better offer from vary institutions especially from non-monetary offers rather than monetary offer like training and development or work-life balance. According to Khalid, Niza, Ismail & Razali (2013), to create a high quality and sustainable environment for students, private higher education institutions should utmost effort to reduce the employee's turnover rate. White (2011) also agreed that if turnover rate was too high in University, management have to re-arrange the subjects that offering in certain course. All of these issues would bring a huge impact on the quality of education which being delivered and will have a negative impact to organization in the future.

The purpose of this study is focus and provides in-depth understanding about non-monetary factors influence the turnover intention of Gen Y in private education institutions. We found that there are lacks of exploratory scholarly literatures for Gen Y in developing countries such as Malaysia (Wong & Angeline, 2010). Therefore, in order to fill in the gap, this study aims to investigate the relationship between performance appraisal, work-life balance, training and development and benefits with turnover intention. By conducting this study, the private higher education institutions will be able to execute the appropriate approaches to retain their young talented employees. The following discussion comprises three parts. First is to examine the literature review to propose the theoretical framework. Then continue with the methodology and analysis results for the proposed model. Lastly, the final part prevails the discussion and conclusion with several important ideas of study.

Literature Review

Chiu & Francesco (2003) stated that turnover intention is defines as the last stage in a sequence of decision-making thought processes for the employee who is going to leave their organization. According to Ramsey (2007), employee turnover intention is discussed in areas of behavioral studies. A person will take few predictable decision stages such as monitoring of labor market information, searching for alternative employment and begin to contacting prospective employers when he or she decided to leave from present organization. The higher turnover rate of employees becomes a critical issue for institutions which could influence service quality of organization. Therefore, in the same time it will also decrease organization's competitiveness with their competitor and it could difficult to enroll the new students. Thus, In order to retain young employees (Gen Ys) in the workplace, an employer is required to understand them. Therefore, in this study, four non-monetary factors are proposed for retaining them: performance appraisal, work-life balance, training and development and benefits.

Performance Appraisal
Performance appraisal (PA) is a system or form to assess the employees' job performance through interview and the feedback which informed to them (Dessler, 2011). It is also an instrument to evaluate employee's expectation towards their job and employee actual job performance (Adeel & Tahir, 2013). Johnson (2011) indicates that satisfaction on performance appraisal has negative relationship with turnover intention. Lindsey (2007) agreed that if employees could receive the appropriate and relevant recognition and appreciation for their contributions, they are willing to stay with organization. Powers (2004) also support that the fairness of PA system would increase the retention rate of employees in organization.

H1: Performance appraisal affects turnover intention.

Work-life Balance
According to Yuile (2011), work-life balance (WLB) was definite as employees satisfied their well-being and self-fulfilment by dealing with different kind of conflicts. In other words, Harish & Sudeep (2013)

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

144

reveal that employees prefer work and non-work schedule could achieve balancing to obtain their balance lifestyle with family, friends, work and personal activity. However, if organization could not adopt WLB practices, the young generation (Gen Ys) might decide to leave the organization for pursuit their desires (Jan, Marwat & Arif, 2009). According to Baldonado (2008), Gen Ys today, do not really concern about salaries. They do concerned more about flexible working hours, and find better balancing between work and non-work life. Therefore, if high turnover rate of employees could bring a negative impact to organizations such as lowering the morale of (Ghayyur & Jamal, 2012).

H2: Work-life balance affects turnover intention.

Training and Development
According to Schuler and MacMillan (1984), Training and development (T&D) is one of the important practices in human resource management which can enhance or generate a competitive advantage to an organization. Training is a significant element in human resource practices in order to assist employees to obtain new skills and knowledge to maintain or improve their performance in corporate world (Joarder & Sharif, 2011). T&D programs could able to build a long term positive relationship between employers and employees and the commitment of employees will be increased. Thus, organization will enjoy fewer turnover rates and increase the employee's retention (Joarder & Sharif, 2011). Auluck (2007) also claims that training provided for employees will decrease the turnover intention.

H3: Training and development affects turnover intention.

Benefit
Benefit is defined as a reward or encouragement which is given to the employees who are performing well and excellent in organizations with non-cash rewards provided such as customer services care, child care, recognition programs, flexible working hours, medical insurance and support from colleagues or supervisor (Choi, Perumal, & Ajagbe, 2012). These benefits are independent on achievement of pre-determined target. Most of the time, employees prefer compensation system that they perceived fairness with their knowledge, skills, experiences and performance in the workplace (Hijazi, Anwar, & Mehboob, 2007). According to Kondrasuk (2011), organization which provided the strategic benefits practices make the way to be an effective organizational commitment and the staffs are less likely to leave the organization and stay loyalty to the organization. On the other hand, Koay (2010) also indicated that benefits could attract and motivate employees committed to the organizational growth and sustainability.

H4: Benefit affects turnover intention.
H5: There is a significant relationship between performance appraisal, work-life   balance, training and development and benefits with turnover intention.

Methodology

The study focuses on private higher education institutions in Malaysia. The target respondents were Gen Ys who are currently working in private higher education institutions like university, college or university college. The data collection was commenced within Peninsular Malaysia. Non-probability sampling is adopted in this study whereby convenience sampling was used to select respective respondents. The convenient sampling was chosen due to it high accessibility, convenience, economic and could obtain relevant information quickly. There are 402 questionnaires were used in conducting data analysis after screening and filtering out the invalid questionnaires. The Statistical Analysis System (SAS) was used to generate the results of proposed framework with turnover intention as dependent variable and performance appraisal, work-life blance, training and development and benefits as independent variables.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

145

Analysis

The table 1 showed that the level of reliability for dependent and independent variables are reliable and acceptable which all the Cronbach's Alpha values are more than 0.60.

Variables	Cronbach's Alpha
Turnover Intention	0.697103
Performance Appraisal	0.676368
Work Life Balance	0.732298
Training and Development	0.662619
Benefits	0.608506

Table 2 is exhibits the significant level of independent variables with turnover intention. All independents variables were show the negative relationship towards turnover intention and scored correlation values 0.106 to 0.382.

Pearson Correlation Coefficients, N=402 Prob> |r| under H0: Rho=0	Performance Appraisal	Work Life Balance	Training and Development	Benefits
Turnover Intention	-0.14668	-0.34233	-0.38239	-0.10562
Turnover Intention	0.0032	<.0001	<.0001	0.0343

Table 3 showed that all independent variables are significant explaining the variance in turnover intention and the all hypotheses were supported by data due to the p-value (<.0001) was less than alpha value 0.05. However, the R square showed that only 34.22% of independents variables able to explain of the variations in turnover intention. There are still leaves 65.78% unexplained in this study.

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr> F
Model	4	14.11829	3.52957	51.63	<.0001
Error	397	27.13952	0.06836		
Corrected Total	402	41.25781			

Root MSE	0.26146	R-Square	0.3422
Dependent Mean	3.78756	Adj R-Sq	0.3356
CoeffVar	6.90313		

Discussion

There is a significant relationship between performance appraisal and turnover intention which reach negative value 0.14668. The results had slightly low might be due to the bias toward the employees from

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

146

supervisor which provide inaccurate judgment and feedback toward their performance (Anjum & Yasmeen, 2011). The intimacy of supervisor and subordinates will also affects the outcome of performance results (Mustapha & Daud, 2013). Therefore, organization could ensure that their entire supervisors were in well trained when assessed the employees' performance. Besides, it could also increase the public confidence from employees and dispel their leaving idea from the institutions.

Pearson correlation showed WLB has the second highest value among the four independent variables which is 0.34233. According to Singh (2010), WLB policies have been viewed as one of the important factors of workplace quality in the organization nowadays. Unlike previous generation, Gen Ys seek to balance their lifestyle, work and personal life. They try to achieve or complete more desires and tasks in same period. They are more preferred that organization could provide them more flexible time to manage their lifestyle. Therefore, if organization could implement different WLB programs, it would increase employees' satisfaction thereby attract and retain their talented young employees in order to enhance organization's efficiency and productivity (Kondrasuk, 2011).

Training and development (T&D) was achieved 0.382. T&D might more concern by Gen Ys employees in private higher education institutions. It is because T&D programs are able to enhance the employability of individual and it tie with future career development (Choo & Bowley, 2007). Joarder and Sharif (2011) do mentioned that T & D is able to reduce the intention of turnover in the organization. This can support by Anne & Dupuis (2004) as they claimed that the more appropriate T&D programs being offered by organizations to employees, the more likely the employees are willing to stay in the organization.

Based on the analysis result, there is a negative value of 0.10562. It shows that only slight relationship between benefits and turnover intention of employees in private institution of higher learning. Ali and Ahmed (2009) have claimed that there is a relationship between benefits and turnover intention in previous study. The reliability score was low was because benefits do not widely used and implemented well in Malaysia's higher educational institutions. Conventionally, Gen Ys repute that salary and benefits which offered by organization are standardization across within this industry. They are more likely to expect for others different non-monetary factors which could help them to enhance their career development and increase their job satisfaction rather than salary and benefits. Although the reliability level was slightly low, but it still will affect the employee's turnover if organization ignore to take care for this factor.

Conclusion

As a conclusion, this study had derived five objectives which to determine the relationship between performance appraisal, work-life balance, training and development, benefits and turnover intention. There were found that all have negative correlation with turnover intention. The results also greatly support to all hypotheses and answering the research questions despite of several limitations. In order to increase the reliability and validity of study, future researchers might try to replace the independent variables with others variables such as employee relation, supervisory support and working condition.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

147

References

Adeel, A., & Tahir, M. (2013). Effects of performance appraisal politics on job satisfaction, turnover intention and loyalty to supervisor. *International Review of Management and Business Research, 2*(3), 653-673.

Ali, R., & Ahmed, M. S. (2009). The impact of reward and recognition programs on employee's motivation and satisfaction: An empirical study. *International Review of Business Research Papers, 5*(4), 270-279.

Anjum, A., & Yasmeen, K. (2011). Performance appraisal systems in public sector Universities of Pakistan. *International Journal of Human Resource Studies, 1*(1), 41-51.

Auluck, R. K. (2007). Training and development's changing role. *Industrial and Commercial Training, 39*(1), 27-34.

Baldonado, A. M. (2008). Exploring workplace motivational and managerial factors associated with generation Y. *Unpublished Master Thesis*, North Central University, United States.

Chiu, R. K., & Francesco, A. M. (2003). Dispositional traits and turnover intention examining the mediating role of job satisfaction and affective commitment. *International Journal of Manpower, 24*, 284-298.

Choi, S. L., Perumal, P., & Ajagbe, M. A. (2012). The impact of human resource management practices on employees' turnover intention. *Interdisciplinary Journal of Contemporary Research in Business, 4*(2), 629-641.

Choo, S., & Bowley, C. (2007). Using training and development to affect job satisfaction within franchising. *Journal of Small Business and Enterprise Development, 12*(2), 339-352.

Department of Statistic Malaysia. (2012). *Statistic of labor workforce in Malaysia*. Retrieved August 08, 2014 from http://www.statistic.gov.my/portal/laborworkforce.

Dessler, G. (2011). *Human Resource Management* (12th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Engelman, E. (2009). Generation Y vs. Baby Boomers: How workplace commitment levels affect recruitment and retention of generation Y within corporate America. *Unpublished Dissertation*, Capella University, United States.

Ghayyur, M., & Jamal, W. (2012). Work-family conflicts: A case of employees' turnover intention. *International Journal of Social Science and Humanity, 2*(3), 168-174.

Harrish, K., & Sudeep, K. C. (2013). Work-life balance (WLB): A key to organizational efficacy. *Aweshkar Research Journal, 15*(1), 62-70.

Hicks, M. A. (2007). Cognitive retention of generation Y students through the use of games and simulations. *Unpublished Dissertation*, Argosy University, London.

Hijazi, T., Anwar, A., & Mehboob A. (2007). Impact of non-financial rewards on employee motivation. *The Business Review, 7*(2), 272-277.

Jan, K., Marwat, Z. A., & Arif, M. (2009). Impact of human resource practices on organizational commitment. *Interdisciplinary Journal of Contemporary Research in Business, 1*(8), 78-101.

Joarder, H. R., & Sharif, Y. (2011). Mediating role of affective commitment in HRM practices and turnover intention relationship: A study in a developing context. *Business and Economics Research Journal, 2*(4), 135-158.

Joarder, H. R., & Sharif, Y. (2011). The role of HRM practices in predicting faculty turnover intention: empirical evidence from private universities in Bangladesh. *The South East Asian Journal of Management, 5*(2), 159-178.

Johnson, B. G. (2011). Performance appraisal satisfaction and intrinsic motivation as correlated to job satisfaction, organizational commitment, and turnover intention in an evangelical congregationally-led denomination. *Unpublished Master Thesis*, Anderson University, United Kingdom.

Khalid, S. A., Niza, M. N., Ismail, M., & Razali, F. M. (2013). Organizational citizenship and generation Y turnover intention. *International Journal of Academic Research in Business and Social Science, 3*(7), 132-141.

Koay. L. S. (2010). HRM practices and employees turnover intention of private higher education institutes in penang: The mediating roles of workplace well being. *Unpublished Master Thesis*, University Sains Malaysia, Malaysia.

Kondrasuk, J. N. (2011). The ideal performance appraisal is a format, not a form. *The proceedings of Allied Academies International Conference, 10*(1), 61-75.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

148

Lindsey, S. W. (2007). Examining the relationship between employee-superior conflict and voluntary turnover in the workplace. *Unpublished Dissertation*, University of North Texas, United States.

Long, C. S., Perumal, P., & Ajagbe, M. A. (2012). The impact of human resource management practices on employees' turnover intention: A conceptual model. *Unpublished Graduation Dissertation*, University Technology Malaysia, Malaysia.

Mustapha, M., & Daud, N. (2013). Perceived performance appraisal effectiveness and turnover intention of knowledge workers: A conceptual model. *Interdisciplinary Journal of Contemporary Research in Business, 5*(7), 11-38.

Na' Desh, F. D. (2008). Grown up digital: Gen-Y implications for organizations. *Unpublished Dissertation*, Pepperdine University, United States.

Powers, V. (2004). Keeping work and life in balance. *T+D, 58*(7), 32-35.

Ramsey, D. R. (2007). Impact of motivation on turnover with respect to hourly female workers in the restaurant industry. *Unpublished Doctorate Dissertation*, University of Phoenix, United States.

Schuler, R. S., & MacMillian, I. C. (1984). Gaining competitive advantage through human resource management practices. *Human Resource Management, 23*, 241-255.

Singh, A. (2010). A study on the perception of work-life balance policies among software professionals. *The IUP Journal of Management Research, 11*(3), 34-60.

TowerWatson. (2014). *Higher turnover rate in Malaysia*. Retrieved August 03, 2014 from www.towerwatson.com/en.my/press/2013/10/Higher.turnover.rate.in.Malasia.

White, C. N. (2011). The influence of identity salience on cross-generation perspectives of work life balance. *Unpublished Dissertation*, University of Tennessee, Chattanooga, Japan.

Wong, C. F., & Angeline, T. (2010). Turnover intention and job hopping behaviour of music teachers in Malaysia. *African Journal of Business Management*, *4*(4), 425-434.

Yuile., Colleen., Chang., Artemis., Gudmundsson., Amanda., Sawang., & Sukanlaya (2011). The role of life friendly policies on employees' work-life balance. *Journal of Management and Organization, 18*(1), 1-29*.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

149

Adoption of Mobile Applications (Tourism) in Malaysia

Chien-Hoe J Lee[1], Ann-Sin Lok[2], Mag-Gie Wong[3] and Hui-Wen Yong[4]

Faculty of Business & Finance, Universiti Tunku Abdul Rahman (UTAR), Malaysia,

chjeff92@gmail.com[1]

annsin21@gmail.com[2]

wmgmaggie19@gmail.com[3]

littleyonghuiwen@gmail.com[4]

Abstract

The growing use of mobile applications has been great innovation of technologies that have contributed much to the way businesses are conducted. Mobile applications or mobile apps, is the new era of distribution channel. Thanks to smartphones, connecting to the internet and doing business are even more convenient than how it was "just-a-click" to what it is "internet in your pocket" nowadays. While apps have been adopted by various industries, the adoption of apps in tourism industry is still slow especially in Malaysia. Tourism has been an important industry that greatly increase the income of a nation and it provides opportunity for job creations, thus this study is important to learn consumer's attitude towards mobile applications (Tourism) that may greatly enhance tourists' arrivals rate in Malaysia. The study shall adopt the Unified Theory of Acceptance and Use of Technology Model (UTAUT) with extended attribute: credibility and social media; that further improves the meaning of this study. Credibility of a service providers greatly influence how consumers behave towards them while social media plays an important role in influencing buying decisions nowadays. The conceptual model is important for tourism products and service providers in formulating their business and marketing strategies.

Keywords – Mobile, applications, apps, Malaysia, extended UTAUT.

INTRODUCTION

Tourism has become the main source of income for many developing countries. According to the World Travel & Tourism Council (WTTC) (2013), the total contribution of tourism sector comprised 9% of global GDP. It is expected to grow by 4.4%, which is around 3.1% of GDP by 2023 (WTTC, 2013). Besides that, tourism increases employment opportunities ranging from low-wage entry level tcheo high paying professional positions. As the tourism industry continues to grow, additional opportunities are created for foreign exchange, private sector growth and infrastructure development which are positively contribute to the economic development of the country (Sharpley, 2014).

Besides that, the demand for tourism is increasing. According to the latest UNWTO World Tourism Barometer, the record of international tourist is reaching 1,087 million which grew by 5% in 2013 (World Tourism Organization, 2014). The results exceeds the expectations with an additional 52 million of international tourists travelling the world. The international tourist is predicted to continue growing at a rate of 4% to 4.5% in 2014 (World Tourism Organization, 2013).

According to Ab.Hadi, Roddin, Razzaq, Mustafa & Baser (2012), tourism has been expected to be the world's largest industry in the 21st century and with this opportunity, Malaysia has begun to get involved in this industry. Moreover, there is a robust growth in Malaysia's tourism industry in recent years

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

150

(Ahmad, Jabeen & Khan, 2013). Besides that, most of the Malaysians agreed that tourism industry is one of the main sources to increase income for either their family or country (Ab.Hadi, Roddin, Razzaq, Mustafa & Baser, 2012). In Malaysia, tourism is also a mentionable earning industry, while this industry gives a positive effect on the Malaysian economy, such as increase in foreign exchange earnings and employment opportunities (Bhuiyan, Siwar & Ismail, 2013).

An increasing in the figure shows tourism has been a significant industry in Malaysia over the past few years. Table 1 shows the international tourist arrivals to Malaysia and revenues received from 1998 until 2013 (Tourism Malaysia Corporate, 2013). From the table, we can observe a favourable trends in the increase of revenue generated from the tourism industry.

Table 1. Tourist Arrivals and Receipts to Malaysia from year 1998 until 2013

Year	Arrivals	Receipts (RM)
2013	25.72 Million	65.44 Billion
2012	25.03 Million	60.6 Billion
2011	24.71 Million	58.3 Billion
2010	24.58 Million	56.5 Billion
2009	23.65 Million	53.4 Billion
2008	22.05 Million	49.6 Billion
2007	20.97 Million	46.1 Billion
2006	17.55 Million	36.3 Billion
2005	16.43 Million	32.0 Billion
2004	15.70 Million	29.7 Billion
2003	10.58 Million	21.3 Billion
2002	13.29 Million	25.8 Billion
2001	12.78 Million	24.2 Billion
2000	10.22 Million	17.3 Billion
1999	7.93 Million	12.3 Billion
1998	5.56 Million	8.6 Billion

On the other hand, the growing use of mobile applications represents an important trend in the innovation of information technology (IT) (Song, Kim, Jones, Baker, & Chin, 2014). Mobile applications are being extensively used in various fields including commerce, healthcare, marketing, finance and entertainment (Shafinah, Sahari, Sulaiman Yusoff, & Ikram, 2013).

New smartphone users are attracted to application stores by the increasing numbers of applications, and the expanding user pool motivates application developers to offer greater numbers of applications and higher-quality applications to tap this growing market (Song et al., 2014). It is estimated that over 250,000 mobile applications are available in an assortment of stores and marketplaces (Wasserman, 2010). Apple (2013), announced in a press conference in Cupertino, California, that their customers have downloaded 40 billion apps. The development of smart gadgets and applications has innovatively improved business processes, entertainment and productivity.

With the growing development of smart gadgets and applications and increase of mobile internet availability, businesses are observing a new platform or channel to deliver their products or services more effectively. Based on a survey conducted by Malaysian Communication and Multimedia Commision (SKMM) in year 2012, the results indicated that approximately 70% of the smartphone users accessed to the internet through the smart devices. SKMM also revealed that there is a total of 18 million 3G subscribers as per the fourth quarter in the year 2013 through their statistics report.

The increase availability of mobile internet at lower cost resembles an important opportunities for many industries. For instance, Transportation companies have used such emerging technologies to provide real-time journey information, ticket purchase platforms and to retain customers (Budd & Vorley, 2013). Besides that, Mobile technologies can also be used to substitute credit card to make payment (e.g.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

151

Tan, Ooi, Chong & Hew, 2014) and mobile banking has emerging as a new channel to service its customers in order not to be left behind (Lee, Harindranath, Oh & Kim, 2014).

Despite the growing use of mobile applications and the way it has changed how people is doing business, it has not been fully utilized in the tourism industry. While tourism has been proven to be an important industry for a country's economic growth, especially in Malaysia, the adoption of mobile applications related to tourism is yet to be discovered.

Customers demonstrate varied behaviors in physical stores compared to virtual stores, which is important to understand the drivers for them to shop virtually (Tan & Ooi, 2013). Besides, while Malaysia is observing a high penetration rate of mobile internet users, the actual transactions made through mobile remains low (Tan & Ooi, 2013). Thus, our research is aimed to investigate the adoption of mobile applications (tourism), in Malaysia

LITERATURE REVIEW

Overview of Mobile Applications (Tourism)

Applications or better known as apps, are little, self-contained programs which enhance contemporary functionalities aiming to be in an easier way (Cutlack, 2013) with the use of a smart devices. Traditional mobile sites require user to fill up an URL address or to bookmark them which are cumbersome, thus more online sites are now adopting apps to give them better control of user experience (Cutlack, 2013). Tourism mobile apps, are thus applications on smart devices that allows users to browse, interact and purchase products or services related to tourisms. Such online purchases include airline tickets, cars rental and accommodations (Kim, Park & Morrison, 2008).

According to Tan and Ooi (2013), they have redefined m-tourism as "any monetary transaction that is related the purchases of tourism related products and services conducted using internet-enabled smart devices or with connectivity to the wireless telecommunication networks".

UTAUT Model

In our research, we will be using Unified Theory of Acceptance and Use of Technology (UTAUT) model and deliberately including two additional variables into the model to determine the adoption of tourism mobile application in Malaysia. The UTAUT model consists of four core determinants, which consists of: performance expectancy; effort expectancy; social influence and facilitating conditions. According to Thomas, Singh and Gaffar (2013), the UTAUT model was built based on eight theories and is used to explain the technology acceptance and use. UTAUT model explains approximately 70% of the variance in behavioral intention (Thomas et al., 2013). It has been tested to be effective and applicable in different technology-adoption environments than any known models from the past studies (Wu, Tao & Yang, 2013). The additional two variables that are included consist of credibility and social media.

Extension of UTAUT Model

Perceived credibility proved to be an important factor for the adoption of mobile application (Hovels, 2010). According to the past studies in the field of technology acceptance, trust is an important predictor of behavioral intention of using a technology (Luarn & Lin., 2005). The attitude of the consumer will be positive when the mobile application is free of security and privacy threats which will consequently affect the intention to adopt the mobile applications (Hovels, 2010).

Social media has been brought in the center of attention into different industries for the past few years (Ionas & Stoica, 2014). A study revealed that 80% of the consumers' purchase intention has been affected by the online review in the social media (Industry Statistic). (Pookulangaran,et al.,2011) Therefore, it can be seen that credibility and social media has a great influence on the purchasing intention of mobile application.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

152

Behavioral Intention (Adoption)

In Chew (2006)'s study, the definition of behavioural intention (BI) is "the intensity of one's intention to fulfil a specific behaviour. According to Technology Acceptance Model (TAM), BI is the most significant determinant of a person's actual behaviour (Chew, 2006). According to Fishbein & Ajzen (1975), BI is defined by attitude toward using (AT), which is explained as "an individual's positive or negative feelings about fulfilling the target behaviour".

Loureiro (2014) explained BI as a proxy for loyalty, while loyalty is always measured by signs like the intention to re-visit the apps or return to that lodging unit or willingness to recommend to people around them. This human behaviour can be interpreted with the perceived behavioural control concept (Song, You, Reisinger, Lee & Lee, 2013). Song et al. (2013) also mentioned that if a person's perceived behavioural control is high, the intention to perform a behavioural will be strong too. For instance, if a person thinks that he/ she has the necessary resources, like time, skills, cost, to use the apps, he/ she is more likely to have an intention to perform the behaviour.

Conceptual Framework
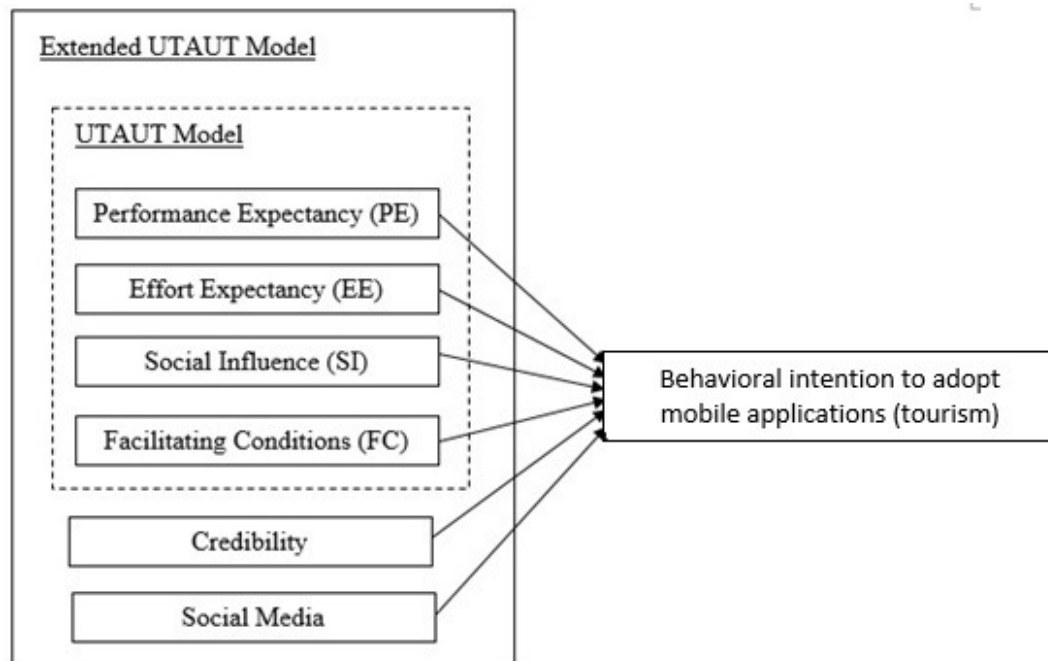
Figure 1. Conceptual framework of factors influencing the adoption of mobile tourism in Malaysia

Proposition Development

Performance Expectancy

According to Thomas et al. (2013), they defined performance expectancy (PE) as the extent to which an individual believes that the use of the technologies will gain in performance results and it is also viewed as perceived usefulness of the technologies. Besides that, Wu et al., (2008) also agreed that PE is the extent that the users believe that by using the information system, it will help in improving the task or work performance. As cited in Venkatesh, Morris, Davis, & Davis (2003), Martin &Herrero (2012) identified that this is same to concepts like perceived use (TAM and DTPB), extrinsic motivation (MM), task adjustment (MPCU), relative advantage (IDT), and performance expectancy (SCT).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

153

Consumers are tend to adopt a new technology when they perceived usefulness or relative advantages (Al-Jabri & Sohail, 2012). The "portable" and "always on" features in the m-device allow consumer to shop anytime and anywhere (Wong, Lee, Lim, Chua & Tan, 2012). The intention to adopt will increase when the consumers perceived that there are advantages adopting m-tourism (Tan & Ooi, 2013). Therefore, consumers are more likely to adopt the tourism mobile application when they perceived relative advantages. To measure the intention of tourists to use mobile application, performance expectancy can be one of the factors to analyze the result.

H_1: Performance expectancy will have positive results towards adoption of tourism mobile applications adoption.

Effort Expectancy

Venkatesh et al. (2003) analyzed that effort expectancy (EE) refers to the easiness when an individual is using the system and Venkatesh also has set up three sub-dimensions from past documents, which are consciousness of easy to use (TAM/TAM2), systematic complexity (MPCU), and operating simplicity (IDT). Besides that, Martin &Herrero (2012) also mentioned the same definition in their research, where EE is assumed to be the extent of ease of use of the system and it is same to variables which is included in integrated models such as perceived ease of use (TAM), complexity (MPCU), and actual ease of use (IDT).

According to Wu et al., (2008), they further explained that whether the information system is simplified enough for users to use or not, is one of the main factors to accept new information technology, for example, whether is features of mobile phone is easy and clear to be understood, whether the use of 3G for mobile telecommunication to access Internet is ease of use for user, these are the elements to determine whether the system is ease to use or not. The easiness of the tourism mobile application will be one of the factors to lead tourists' intention to use it as well.

According to the past studies, the ease of use of mobile application is a significant driver of attitude and behavioral intention and further affect user's acceptance (Hovels, 2010). Besides that, user friendly interface should be stresses on effort expectancy might be an important construct in promoting the intention of adopting m-tourism (Tan & Ooi, 2013). For example, the payment transactions system that involve in m-tourism should be straight forward. Furthermore, effort expectancy has a positive effect on perceived credibility which implies that perceived ease of use of mobile application will increase the feeling of security and privacy of the application (Hovels, 2010). Therefore, the tourism mobile application should be easy to operate with minimum efforts as it will affect consumers' willingness to adopt it.

H_2: Effort expectancy will have positive results towards adoption of tourism mobile applications adoption.

Social Influences

Thomas et al. (2013) defined that social influence (SI) is the degree to which an individual believes the importance that people believe he or she should use the technologies. Venkatesh et al. (2003) also defined the same meaning, as it is the degree to which the importance of others are became aware of to support the intention of user to adopt an IT innovation.

According to Lopez-Nicolas, Molina-Castillo & Bouwman (2008), they explained that social influence which also known as normative pressure or subjective norm, is divided into two parts, which are external influence and interpersonal influence. For external influence, it includes reports from mass media, opinions from experts, and other non-personal information, whereas interpersonal influence includes word-of-mouth from friends, colleagues, and superiors (Lopez-Nicolas et al., 2008).

However, Wu et al., (2008) found that influences normally happen only at the beginning of use, but, after using for a period, it does not give any major influence on behavioral intention. For instance, some tourists might influenced by others to use the tourism mobile application, but after all, it might not be useful anymore and they might stop using it (Wu et al., 2008).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

154

New consumers may feel shy to adopt the new technology for some queries, as m-tourism is considered new system in Malaysia (Tan & Ooi, 2013). In addition, Laohapensang (2009) mentioned that the subjective norm has a positive influence on the acceptance of mobile services, while Taylor and Todd (1995) also concluded the significant of subjective norm towards disposition to use a certain technology, like tourism's mobile application.

H_3: Social influence will have positive results towards adoption of tourism mobile applications adoption.

Facilitating Conditions

Lastly, facilitating condition (FC) is defined as the extent to which an individual believes that the existence of organizational and technical infrastructure to sustain the use of the system (Martin & Herrero, 2012). Venkatesh et al. (2003) also defined that FC is an individual who believes the availability of resources, knowledge and training to support the adoption of a particular concept and it is same with behavioural control.

However, Venkatesh et al. (2003) argued that in a previous research, the influence of facilitating conditions on intention over and above effort expectancy was non-significant. Thus, Venkatesh et al. (2003) explained that facilitating condition has been included in the UTAUT as a direct determinant of actual use, and it was not included in their predictive model. Tourists' intention to use mobile application during their travel will somehow influence by facilitating condition, but not it is not the significant factor.

According to Taylor and Todd (1995), they mentioned that FC has a direct influence on the behavioral intention of several studies on IT. Besides that, Revels, Tojib & Tsarenko (2010) found that transaction fees, subscription cost and data services charges are the main factors which affect the adoption of mobile services or application. Tan and Ooi (2013) explained that if consumers do not have necessary financial resources, they are unlikely to use the particular technology. They also said that consumers are unlikely to use the innovative technology when there are existing barriers, even if they have disposition to use the m-tourism. Therefore, Tan, Chong, Ooi and Chong (2010) concluded that if the cost associated which is perceived to be inexpensive, users are more likely to accept it.

H_4: Facilitating condition will have positive results towards adoption of tourism mobile applications adoption.

Credibility

Credibility is defined as the trustability of a system and its capacity in transferring and doing transactions (Hanafizadeh, Behboudi, Koshksaray, &Tabar, 2014). The credibility of the mobile applications is what makes their uses frequent (Buyukozkan, 2009). If the user experienced a problem during the transaction or the payment, it is certain that it will not use the mobile applications once more (Buyukozkan, 2009). The credibility of the mobile applications has two aspects: what is produced by the system itself and what is perceived by the user (Buyukozkan, 2009).

Since smartphone app performs transaction between seller and purchaser in imagery space just like e-commerce, with different characteristics from transaction through physical channel in offline, it has been reported that serious problems of transaction safety or leaking of personal information are prevail (Lee, Kim, & Choi, 2012). Thus, credibility can be an important factor in opting e-transaction by consumers (Lee et al., 2012).

The success of the information will depend on the credibility of the sources that provide information about these products (Kautsar, Widianto, Abdulah, & Amalia, 2012). It is because consumers are concerned with risks such as faulty transactions or stolen username and password and the increased

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

155

awareness about hackers is another concern (Jeong & Yoon, 2013). Therefore, when consumers adopt the tourism mobile applications, they intend the mobile applications are safe and secure.

H_5: Credibility will have positive results towards adoption of tourism mobile applications.

Social Media

Social media is a virtual community where people from all walks of life gathered around a common interest to share their experience, insights, opinions and user-generated content (UGC) among members of the same network (Turban, King, Lee, Liang & Turban, 2011). Social media takes place in various formats, including professional network such as LinkedIn; leisure social network such as Facebook, Trip Advisor; microblogs such as Twitter and many more (Turban et al., 2011).

The innovation of social media has enable tourists to share their traveling experience especially tourists' reviews. This information shared on the social media websites represent an important source of information that serve as a guideline for travelers in planning of their journeys; or has direct influence on tourist's travel-decision making process (Zeng & Gerritsen, 2014). Readers who read reviews perceive this information shared by other consumers is superior to commercial information, especially the information being up-to-date, reliable and enjoyable to read (Gretzel & Yoo, 2008).

Besides, higher percentage of travelers tend to depend on UGC to plan their journey when travelling to a destination for the first time; or when travelling internationally (Simss, 2012). Assumptions is made in many researches that consumer engagement in an online networking influence their behavior towards the firm (Algesheimer, Dholakia & Herrmann, 2005) and such participation may improve customer's loyalty (Andersen, 2005). For example, Hutter, Hautz, Dennhardt and Füller (2013) found in their studies that involvement with Facebook fan page demonstrate positive effect on consumer's purchase intention.

Hutter et. al (2013) also stated that social media activities do influence purchase decision making. In travel industry, online networking can also provide additional value to the users from the benefits they gained from these community (e.g. travel information) (Casalo, Flavian & Guinaliu, 2010).

H_6: Social media will have positive results towards adoption of tourism mobile applications adoption.

Implications

Theoretical implications

In the theoretical perspective, this study have further contributed to the existing literature by examining the topics on mobile applications. While many studies have been done on mobile commerce, limited studies have been conducted on studying the impact of mobile applications in business performance. Besides, while UTAUT has been used in numerous studies in identifying the factors that influence technology adoption, we have extended the model by incorporating credibility and social media as an additional attributes to study the adoptions of mobile applications as credibility has been a major concern among users to shop visually without physical transaction available. Social media on the other hand has growing importance in consumer's decision making process. Thus, the extension will further enhance the testability of the model.

Managerial implications

While mobile applications is the new way of businesses are conducted, tourism industry has not shown initiative in fully leveraging the benefits that they can yield by doing business via mobile apps. Thus, in view of managerial implications, PE may have positive effect on the adoption of mobile applications (tourism) and tourism products/service providers should educate the public about the benefits of using mobile apps. Benefits such as hassle-free processing, time saving, convenient, and better travel planning process can be unique selling points for firms to advertise or promote the use of

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

156

mobile apps. In terms of EE, a mobile apps should not be complicated and must be easy to understood, learnt and used. Consumers may refuse to use technology that is too advance for them and prefer to use traditional transaction methods which they are more familiar with.

On top of that, as credibility represents how trustworthy a company or its products/services is, tourism products/service providers must ensure that they are able to protect their consumers from exploitations and ensure consumers security. Firms must ensure they adopt secure transaction systems and high security protection systems regarding their consumer's personal information (i.e. credit card information). In addition, social media has growing influence on consumer's purchase decision. With the availability of internet and smartphones, information can be obtained from the pockets anytime anywhere. Consumers are increasingly relying on comments, reviews and information shared by friends, family and other members of a virtual community before the make a purchase. Thus, tourism products/service providers must ensure that they monitor the user-generated content on social network sites to identify any bad or negative word-of-mouth have been spread; and to investigate on the issue once found. Social media is also an important platform for business to obtain information about customer's attitude towards their products/services. Therefore, social networks should be leverage as an important platform to understand their customers better.

Conclusion

The paper focused on the acceptance of mobile applications (tourism) in Malaysia in general. In order to achieve the research objective, a conceptual research framework was developed by integrating the UTAUT models and two additional variables namely credibility and social media. The framework is important as it provides valuable information not only for mobile phone manufacturers but also tourism products/service providers, governments and practitioners when formulating their communication and business strategies. In order to establish the model in practices, the paper suggests that future researchers to test, validate and enhance the model by using a multivariate analysis.

Reference

Ab.Hadi, M. Y., Roddin, R., Razzaq, A. R. A., Mustafa, M. Z., & Baser, J. A. (2012). Poverty eradication through vocational education (tourism) among indigenous people communities in Malaysia: Pro-Poor Tourism Approach (PPT). *Journal of Social and Behavioral Sciences.* 93(2013), 1840 – 1844.

Ahamd, S. Z., Jabeen, F., & Khan, M. (2013). Entrepreneurs choice in business venture: Motivations for choosing home-stay accommodation businesses in Peninsular Malaysia. *International Journal of Hospitality Management.* 36(2014), 31– 40.

Algesheimer, R., Dholakia, U.M., Herrmann, A. (*2005*) The Social Influence of Brand Community: Evidence from European Car Clubs*. Journal of Marketing, 69, 3, 19-34.*

Al-Jabri, I. M. and Sohail, M. S. (2012). Mobile banking adoption: Application of diffusion of innovation theory. Journal of Electronic Commerce Research.

Anderson, P. H. (2005). Relationship marketing and brand involvement of professionals through web-enhanced brand communities: The case of Coloplast. *Industrial Marketing Management, 34(3), 285-297.*

Budd, L and Vorley, T. (2013). Airlines, apps, and business travel: A critical examination. *Research in Transportation Business and Management*, 9, pp.41-49

Buyukozkan, G. (2009). Determining the mobile commerce user requirements using an analytic approach. *Computer Standards & Interfaces, 31*(1), 144-152. Retrieved March 11, 2014, from http://dx.doi.org/10.1016/j.csi.2007.11.006

Bhuiyan, M. A. H., Siwar, C., & Ismail, S. M. (2013). Tourism Development in Malaysia from the Perspective of Development Plans. *Journal of Asian Social Science.* 9(9), 11-18.

Casaló, L.V., Flavián, C., Guinalíu, M. (2010). Determinants of the intention to participate in firm-hosted online travel communities and effect on consumer behavior intention. *Tourism Management, 31(2010), 898-911.*

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

157

Cutlack, G. (2013). What are apps and how do they work with your smartphone? Retrieved May 21, 2014 from http://www.techradar.com/news/phone-and-communications/mobile-phones/what-are-apps-and-how-do-they-work-with-your-smartphone--1141429

Gretzel, U., & Yoo, K. (2008). Use and impact of online travel reviews. Information and communication technologies in tourism 2008, 35–46.

Hanafizadeh, P., Behboudi, M., Koshksaray, A. A., & Tabar, M. J. S. (2014). Mobile-banking adoption by Iranian bank clients. *Telematics and Informatics, 31*(1), 62-78. Retrieved April 14, 2014, from http://dx.doi.org/10.1016/j.tele.2012.11.001

Hovels, V. (2010). Drivers and inhibitors of the behavioral intention to use branded mobile applications in a retail environment. Unpublished master's thesis, University of Amsterdam.

Hutter, K., Hautz, J., Demhardt, S., Füller, J. (2013). The impact of user interactions in social media on brand awareness and purchase intention: the case of MINI on Facebook. *Journal of Product & Brand Mangement, 22/5/6 (2013), 342-351.*

Ioanas, E. & Stoica, I. (2014). Social Media and its Impact on Consumers Behavior. International Journal of Economic Practices and Theories, 4(2), 2247-7225.

Jeong, B. K. & Yoon, T. E.. (2013). An Empirical Investigation on Consumer Acceptance of Mobile Banking Services. *Business and Management Research, 2* (1), 31-40. Retrieved May 20, 2014, from http://dx.doi.org/10.5430/bmr.v2n1p31

Kautsar, A. P., Widianto, S., Abdulah, R. Ph.D, & Amalia, H. (2012). Relationship of Consumer Involvement, Credibility of the Source of Information and Consumer Satisfaction on Purchase Decision of Non-Prescription Drugs. *Procedia – Social and Behavioral Sciences, 65*, 449-454. Retreived May 20, 2014, from http://dx.doi.org/10.1016/j.sbspro.2012.11.147

Kim, D.-Y., Park, J.-K., and Morrison, A. M. (2008). "A model of traveler acceptance of mobile technology", *International Journal of Tourism Research*, Vol. 10 No.5, pp.393-407.

Laohapensang, O. (2009). Factors influencing internet shopping behaviour: A survey of consumers in Thailand. *Journal of Fashion Marketing and Management*, 13(4), 501-513.

Lee, H. S., Kim, T. G., & Choi, J. Y. (2012). A Study on the Factors Affecting Smart Phone Application Acceptance. *International Proceedings of Economics Development and Research, 27*. Retrieved March 11, 2014, from http://www.ipedr.com/vol27/6-IC4E%202012-F00009.pdf

Lopez-Nicolas, C., Molina-Castillo, F. J., & Bouwman, H. (2008). An assessment of advanced mobile services acceptance: Contributions from TAM and diffusion theory models. *Journal of Information & Management.* 45(2008), 359-64.

Luarn, P., Lin, H.H. (2005). Toward an understanding of the behavioral intention Mirbabayev, B. & Shagazatova, M. (n.d.). The Economic and Social Impact of Toursim. Retrieved April 16, 2014, from http://www.grips.ac.jp/alumni/UzbekistanTourism(2).pdf

Martin, H. S., & Herrero, A. (2012). Influence of the user's psychological factors on the online purchase intention in rural tourism: Integrating innovativeness to the UTAUT framework. Journal of Tourism Management. 33(2012), 341-350.

Pookulangaran S. and Koesler K., (2011), Cultural influence on consumers' usage of social networks and its' impact on online purchase intentions, *Journal of Retailing and Consumer Services*, 18, 348–354.

Revels, J., Tojib ,D., and Tsarenko,Y. (2010), "Understanding consumer intention to use mobile services", *Australasian Marketing Journal* , Vol. 18 No. 2, pp.74–80.

Shafinah, K., Sahari, N., Sulaiman, R., Yusoff, M.S.M., and Ikram, M.M. 2013. Determinants of User Behavior Intention (BI) on Mobile Services: A Preliminary View. *The 4th International Conference on Electrical Engineering and Informatics 2013 (ICEEI 2013)*

Sharpley, R. (2014). Host perception of tourism: A review of the research. *Tourism Management, 42, 37-49.*

Simms, A. (2012). Online user-generated content for travelling planning – different for different kinds of trips? *e-Review of Tourism Research, 10(3), 76-85.*

SKMM. (2014). Communication and Multimedia: Pocket books of statistics, Q1, 2014. Retrieved June 21, 2014 from http://www.skmm.gov.my/Resources/Statistics/Communications-and-Multimedia-Pocket-Book-of-Stati.aspx

Song, J., Kim, J., Jones, D.R., Baker, J., Chin, W.W. (2014). Application discoverability and user satisfaction in mobile application store: An environmental psychology perspective. *Decision Support System, 59(2014), 37-51.*

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

158

Tan, G.W.H., & Ooi, K.B. (2013). *Mobile tourism the hidden jewel of the tourism industry.* Proceedings of 2013 International Conference on Technology Innovation and Industrial Management, Phuket, Thailand.

Tan, G. W. H., Chong, C. K., Ooi, K. B., & Chong, A. Y. L. (2010). The adoption of online banking in Malaysia: an empirical analysis. *International Journal of Business and Management Science*, *3*(2), 169.

Tan, G.W.H., Ooi, K.B., Chong, S.C., Hew, T.S. (2014). NFC mobile credit card: The next frontier of mobile payment? *Telematics and Informatics, 31(2014), 297-302.*

Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, *6*(2), 144-176.

Turban, E., Lee, J. K., King, D., Liang, T. P. & Turban, D. (2011). Electronic Commerce 2012: A Managerial Perspective 7th Edition. New Jersey: Prentice Hall.

Thomas, T.D., Singh, L. & Gaffar, K. (2013). The utility of the UTAUT model in explaining mobile learning adoption in higher education in Guyana. Journal of Education and Development, 9(3), pp 71-85.

Tourism Malaysia Corporate (2013). Tourism Arrivals and Receipts to Malaysia. Retrieved 3 June, 2014, from http://corporate.tourism.gov.my/research.asp?page=facts_figures

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: toward a unified view. MIS Quarterly, 27, 425-478.

Wasserman, A. I. Software Engineering Issues for Mobile Application Development. Proceeding of the FSE/SDP workshop on future of software engineering research, FoSER; 2010, p.397-400.

Wong, C.H., Lee, H.S, Lim, Y.H., Chua, B.H & Tan, G.W.H. (2012). Predicting the Consumers' Intention to adopt Mobile-shopping: An Emerging Market Perspective. Journal of Network and Mobile Technologies

World Travel & Tourism Council (WTTC). (2013). Travel and Tourism Economic Impact 2013 World. Retrieved April 16, 2014, from http://www.wttc.org/site_media/uploads/downloads/world2013_1.pdf

World Tourism Organization. (2014). International tourism exceeds expectations with arrivals up by 52 million in 2013. Retrieved April 23, 2014, from http://media.unwto.org/press-release/2014-01-20/international-tourism-exceeds-expectations-arrivals-52-million-2013

Wu, Y.L., Tao, Y.H. & Yang, P.C. (2007). Using UTAUT to explore the behavior of 3G mobile communication users. *Industrial Engineering and Engineering Management (IEEE)*, *2007 IEEE International Conference,* 199-203.

Wu, Y.L., Tao, Y.H. & Yang, P.C. (2008). The use of unified theory of acceptance and use of technology to confer the behavioral model of 3G mobile telecommunication users. *Journal of Statistics & Management Systems*. 11(5), 919–949.

Zeng, B. & Gerritsen, R. (2014). What do we know about social media in tourism? A review. *Tourism Management perspective, 10(2014), 27-36.*

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

159

Crisis Management In Tourism: The Malaysia Experience

Chee-Hoong, Lam[a], Ai-Na, Seow[b], Peter Sin-Howe, Tan[c], Kam Hoe, Oon[d]

[a]*Universiti Tunku Abdul Rahman, Malaysia, lamch@utar.edu.my*
[b]*Universiti Tunku Abdul Rahman, Malaysia, seowan@utar.edu.my*
[c]*Universiti Tunku Abdul Rahman, Malaysia, shtan@utar.edu.my*
[d]*Universiti Tunku Abdul Rahman, Malaysia, oonkh@utar.edu.my*

Abstract

Tourism is one of the prominent industries that contributing to the economy, social and infrastructure development in Malaysia. Significantly, unforeseen crises such as natural disasters, tragedies, epidemics, and national security issues are vulnerable to the growth of tourism industry. Without a proper mechanism of crisis management, the inherent risks of challenges are not just hindering the inbound of foreign travellers and visitors, nor it will tarnish the national reputation and incur massive destructive costs. This paper delineates the emerging challenges and its impact on the Malaysia's tourism industry. Three main determinants, namely the role of communication systems, organisational structure, and stakeholders which are essential for effective crisis management are discussed comprehensively. Drawing from the literature, a contemporary crisis management framework is developed to address the emerging crises in tourism industry. Finally, this paper will end with the discussion of practical implications, conclusions and potential future studies.

Keywords: Tourism, Crisis Management, Stakeholders, Communication Systems, Organisational Structure

Introduction

Tourism is a major economic sector and is increasingly making a contribution to Malaysia economies, where it stimulates regional development and is a mean of attracting foreign exchange and cultural structure (Jenkins, 1982; Tosun, 2000). In addition, tourism also provides socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to mass communities, and contributes to poverty alleviation. A crisis in one may have considerable impact on tourism and is vulnerable to the economic climate as well as to changes in public perception. Therefore, it is crucial that swift action be taken in the event of a crisis. Disaster and crisis are different but sometimes applied interchangeably, e.g. man-made disaster may develop into an industrial crisis. In the past studies, Shaluf and Said (2003) reviewed the definitions, types, characteristics, criteria and models of disaster and crisis.

Malaysia suffered from several lesser crises previously, in particular, the Southeast Asian haze, the current outbreak of Japanese Encephalitis (JE) and the state of dengue in Malaysia reached its endemic level. The repeated kidnapping incidents have hampered tourism in Sabah, a popular destination for foreigners and a diving haven. With tourism increasingly threatened by aviation crisis, from the impact of flight MH370's March disappearance and news of MH17's shotdown in Ukraine broke on in July 2014. This had by far the greatest national significance in the history of aviation; no airline has gone through two tragedies of this magnitude in a span of four months. While the tangible impacts on the destination's infrastructure may be relatively on the country, the damage to the image of the destination as a safe place to visit may be substantial and so seriously affect tourism demand and consumer

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

160

confidence (Ashley et al., 2005). Furthermore, improvements in technology and a global media mean that no crisis is restricted to its immediate vicinity but can cause global repercussions.

The aim of this study is to examine the challenging response of Malaysia to the tourism crisis and disaster in the tourism industries and to consider the potential for crisis management from its main determinants. Crisis management offers the possibility of restoring the status quo promptly, minimising any economic losses resulting from a crisis and at the same time bolstering public confidence. The preparation of a crisis management plan requires not only substantial time and effort to identify objectives and priorities and to rationalise operations but there may also be a considerable financial cost involved. Failure to manage a crisis may lead to bankruptcy of suppliers, jobs and financial losses, or at worst, the collapse of the tourism sector which, particularly in the case of developing countries, may be a major contributor to the economy. Subsequently, future disasters will be best depicted as a context of framing and blaming (Hart, 1993; Boin et al., 2010). In addition, although crises may occur in a single country or region, the repercussions may be global. This research offers the opportunity of learning from the Malaysian experience.

Literature Review

Crisis Management

Crises are traditionally classified as either *natural* (hurricanes and earthquakes) or *man-made* (industrial accidents, plane crashes and terrorist events) disaster. Crises and natural disasters jeopardise tourism development not only by the damage they inflict but also by their unpredictability. In addition, the impact on tourism of man-made disasters, such as tragedy and epidemic, has highlighted the vulnerability and volatility of the tourism sector. Despite the importance of a crisis, where an incident having a devastating and widespread impact, with loss of life and serious economic and even political implications, there has been relatively challenge on this aspect of crisis management in Malaysia perspective.

Crisis management involves intervention in the unfolding of a crisis to prevent the situation deteriorating further or, to minimise the damage caused and assist recovery and the return to the status quo (Rosenthal & Pijnenburg, 1990). Crisis management research in the context of tourism dates back to the 1980s and a large part focuses on strategies to recover after a crisis or disaster (Henderson & Ng, 2004; Hitchcock & Darma Putra, 2005; Huang & Min, 2002; Peters & Pikkemaat, 2006). Strategic approach to crisis management is taken by both Faulkner (2001) and Ritchie (2004) who have developed models for tourism disaster management that are applicable to any destination hit by an unforeseen disaster. Cassedy (1991) offers a practical guide to developing a crisis management plan for a destination, based on the lessons learnt from the crisis experience. Research into the management of a specific, expected crisis includes McKercher & Young's (1999) on analysis of the potential impact on tourism and a crisis management plan for tourism recovery (Huang et al., 2008). Further, Rodriguez & Fraiz (2011) highlighted the opportunity to meet the challenges of competitiveness acquired in the field of crisis management in tourism are able to help in sustaining tourism development.

This article is to provide any reference to prepare or dealing with crises as a means of stabilising the environment in tourism sector. A more sustainable situation in both financial and political gains could be made if a crisis is managed successfully. It aims to provide benefits to all stakeholders and to protect host communities and habitats. Theories or concepts from three dimensions has been discussed in order to shed further light on crisis management for the tourism along with research fields which are related to crisis and disaster management in tourism: (1) Public relations and communication/information management - Communication theory and the use of communication to control crises between internal and external stakeholders in the tourism industry. (2) Geography and natural hazards/disasters and management - Leadership styles in organisational structure and their contribution to effective crisis management in the tourism industry. (3) Planning (including integrated emergency planning and risk management) - Stakeholder collaboration and planning in crises or disasters associated with the tourism industry.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

161

Communications System

Communication is always a critical issue in crisis management. Communication also known as crisis communication can be used to facilitate how stakeholders interpret a crisis and the organisation crisis. The primary function of crisis communication and control is to provide correct, reliable and consistent information to the public. Both communication and public relations are required to enhance the corporate image and industry sector that faced with a crisis (Ritchie, 2004).

Crisis communication entails crucial decisions and actions that will significantly influence the future affair. Effective response can minimise the damages and losses from a crisis by the tourism organisations, airline companies and destinations. Poor communication strategies can make a crisis worse and create stress and confusion to the employees, reporters, shareholders, government officials and general public (Marra,1998).

Lack of information and inconsistency of response are key problems in crisis communication. According to Coombs (1999), all stakeholders are expecting complete and consistent messages from the organisation or authority in timely manners. If the crisis team does not fill the information gap, someone else will. Thus, frequent and keep inform to the latest update become very important to build credibility and preserve the organisation reputation in time of crises.

Based on the Ray's (1999) study, there are five common communication strategies that adopted by organisations in the event of crises, which include denying responsibility, hedging responsibility, ingratiation, eliciting sympathy and making amends. The ways in which selected strategies are implemented are depending on who is being addressed, how massages are received and interpreted and cultural and linguistic differences among audiences. Seeger (2006) also agreed that the greatest challenge was to identify effective crisis response strategies. The final outcomes of the crisis are depending on the appropriateness, accuracy and spend of those responses to the stakeholders.

Media plays an essential role in the crisis communication process, acting both a target audience and a channel of news distribution. Organisation in crisis has to be responsive to the demand of the media as they are looking for quick sources of information (Coombs, 1999). Organisation may try to convey positive images through the media, but somehow it may be difficult in the atmosphere of tension and doubt. Potentially, it may also lead to business disasters if it is not well-handled by managers (Henderson, 2003).

Sönmez et al. (1999) argued that effective implementation of crisis communication and marketing plan is necessary and will benefit to all parties, as the cost of the relevant efforts will be far less expensive than the cost associated with a downturn of visitors' confidence and visitation to the destination. Consequently, the following proposition is proposed.

P1 : Communications enrich the crisis management system

Organisational Structure

Organisational structure that is organic, flatter, decentralise and less rigid is responsive to the crisis event. Bureaucratic organisational structures and styles may prohibit organisations from positioning themselves closer to outside environment, allowing for better monitoring on change and sensing potential crises and disasters in the future. Heath (1995) observed that the bureaucratic structure and power relationships restrict the ability of organisations to respond quickly and effectively to any emergency conditions.

Tribe (1997) also agreed that organisational structure and culture that are centralised and rigid in management will face a great challenge to survive in twenty-first century. Thus, the shift from bureaucratic organisation structure to more flexible style is required to deal with crises and disasters effectively. Faulkner (2001) argued that flexibility is required for some organisations to perform functions beyond their routine activities. The precise sequence of actions that are necessary may different subject to the types of

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

162

emergency. Empowerment may further speed up the decision making process to the frontline staff in handling all the critical issues during crises or disasters.

Organisations may made changes to their organisational structure by forming crisis management teams. This ad-hoc based team is empowered to identify and develop crisis management strategies and plans that help the organisation continue their operations in minimising risk possible during the moment of a crisis. The team should be cross-functional that provides input from all aspects business, covers main issues and problems that very likely occurred during crises or disasters. Organisations will also provide more resources to their public relations team to keep the stakeholders with the latest information and development of the crisis event (Ritchie, 2004).

Leadership is required to provide direction and guidance in dealing with crisis incident as a key spokesperson to the media. Cassedy (1991) supports the need for a team leader to manage and control a crisis management team. Leaders should lead the team and meet up regularly to discuss and re-design the strategy in respond to the environment changes more effectively. According to Heath (1995), time is too limited for consensus driven decision making process in crises and disasters response management. Hence, the fast leadership and the ability to make quick and accurate decisions are highly needed and valuable to all the crisis organisations.

Tourism industry comprises both private and public sector organisations at local, regional and national level. Some large companies may have established a crisis management team on permanent staff. However, many small and micro businesses may depend on industry organisations to provide supports during a crisis and disaster (Ritchie, 2004). Therefore, an integrated approach to crisis and disaster management among all the relevant parties is required to handle the challenges together. The crisis management team also required to include representatives from local government, travel and tourism industry professional and community leaders. Each of them plays their roles in collecting information on the impact of the crisis, share ideas and jointly consider strategies to improve the crisis of travel destination effectively (Sönmez et al., 1999). Hence, the following proposition is formed :-

P2 : Organisational Structure improves the crisis management system

The Role of Stakeholders

Since nineteenth century, capitalists have acknowledged the role of stakeholders as one of significant stimulus of growth to all industries. In many research literatures, the concept of stakeholder's involvement has been ingrained in the area of business and public administration study (Freeman, 2010). Meanwhile, a stakeholder is defined as someone who has a stake or claims a stake from a business entity/industry in business context (Ferrell et al., 2011). According to Byrd (2007), stakeholders play an important role in supporting industry development while reflecting the community interests and opinions. The efforts and contributions of stakeholder are inevitably essential to business survival and development (Paraskevas et al., 2013). Specifically, the role of stakeholders are emphasising on the ability to handle multiple perceived issues and making decision to solve the issues (Kruja & Hasaj, 2010).

Nowadays, the development of tourism industry is involving many groups of stakeholder (i.e., private- and public-sector organisations, government, tourists, etc.) ranging from national to international level (Ritchie, 2004). As tourism is a highly people-oriented industry and tourists being vulnerable to the crisis, hence stakeholders are identified as the focal actors/agents in responding to the incident, making spontaneous decisions, communicating among the stakeholders and formulating strategy/solution to cope with the crisis (Mistilis & Sheldon, 2006; Paraskevas et al., 2013). With the adoption of stakeholder theory in tourism, Byrd (2007) depicted that stakeholder's support is crucial to the success and execution of sustainable tourism development in a community.

In the case of Malaysia, the tourism industry was striking by few recent crises (i.e., aviation crisis, haze issue, epidemic of JE, etc.) which cause the nation to suffer for great losses in various aspects of politic, economic, and social development. Such unforeseen crises had worsening the situation further especially there was a poor communication among the stakeholders and inexperience in handling the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

163

crises effectively (Pforr & Hosie, 2008; Ritchie, 2004). Each crisis is different and requires the crisis manager to customise responses to individual crisis rather to have a standard plan for every individual situation (Cushnahan, 2004). The adoption of one-size-fits-all approach is unfeasible to solve the tourism crises (Pforr & Hosie, 2008).

Therefore, stakeholders are critical to take up the role to manage a crisis effectively. In particular, local authority such as Ministry of Tourism needs to take up the leadership role in responding to the crisis in a proactive way rather than reactive crisis management approach (De Sausmarez, 2004). In line with the proactive crisis management, Cushnahan (2004) emphasised on customising crisis management approach as an effective way to lessen the negative impact of a crisis through positioning the context of socio-cultural, economic, political and physical characteristics. Besides, McKercher and Chon (2004) and Ritchie (2004) also highlighted that the co-ordination and collaboration between key stakeholders also important to leverage and solve the crisis effectively. For instance, prompt co-ordinations and collaborations between travel agencies and local authorities in deploying human supports while confronting the unexpected crisis will result to increase the resilience to withstand turbulence, leverage chaotic condition, deal with crisis, and recover from them (Paraskevas et al., 2013). Therefore, the following proposition is established.

P3 : The role of stakeholders enhance the crisis management system

Proposed Conceptual Research Framework

Based on the literature review stated above, a conceptual framework is established to study the effect of crisis management in tourism. This is shown in Figure 1 below. This framework has provided us a clue that the success of having these three variables will enhance the crisis management process.
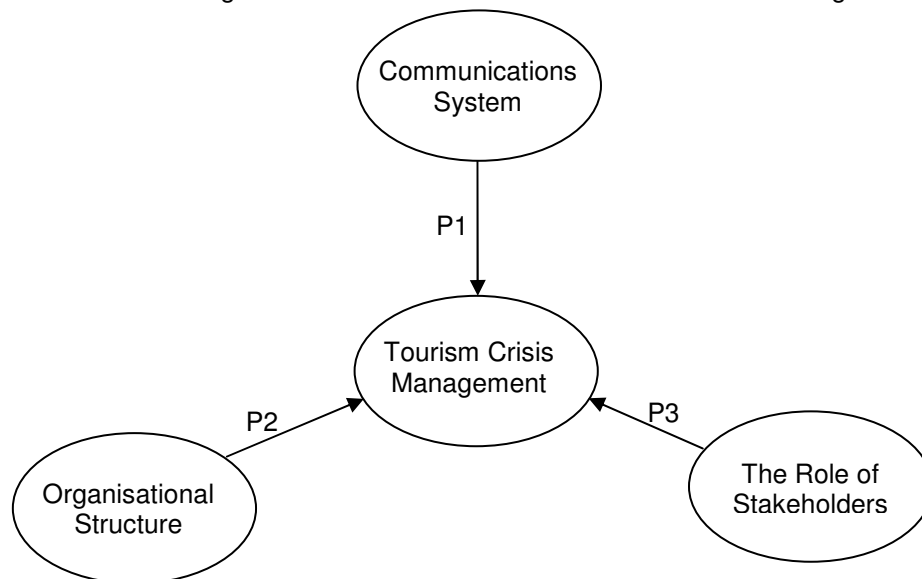
Figure 1. A Conceptual Framework

Implications and conclusions

Managerial Implications

Like any other industries, crisis management is a must in tourism in today's business world. This is more so as tourism has always been one of the industries that generates revenues for the nation. Therefore, the need of having a reliable and an effective crisis management system could help the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

164

tourism industry better prepare in the wake of any disaster happens. Management should start to ask themselves questions such as what are the guidelines and procedures that needed to be followed by the victims and their loved ones when a disaster occurs, do our communication systems provide us reliable information, does the current organisational structure flexible enough to make critical decisions, how effective the crisis management in rebuilding the tourism industry.

Indeed, it is impossible to have a right plan for everything that occurs. Even if there is a plan, implementation is what the management needed to carry out. Besides, management also required to know the difference between planning and preparation. Helsloot and Ruitenberg (2004) pointed that the preparation plays the supporting role when the plan that is in place. Sönmez et al. (1999) indicated that all tourism destinations to include the crisis management planning into their business plans. This is because preparedness to face such a disaster that could occur 24 hours a day, 7 days a week would perhaps, give the management more time to minimise the effect of the disaster.

Management needs to develop a structure within an organisation in which individuals are trained to be leaders instead of managers to carry out tasks. Therefore, the department of Human Resource to form the crisis management team and send these members for trainings that are conducted by professional personnel on crisis management. This is to equip the members for the know-how in the wake of a crisis. These members would in turn, provide trainings to their fellow colleagues and eventually, this implies that every staff within an organisation know what actions needed to be taken during a crisis occurs.

Communication is a critical component while a good and effective communication system would enable sharing of critical and invaluable information consistently and accurately among all parties concerned. Information on a crisis might obtain from an external source such as from another country. Hence, establishing a good relationship among other nations in the world could indeed, benefit the nation as we understand many heads is better than one. Being a developing country, Malaysia is still far behind in terms of information technologies in the area of communications. Besides, learning from other nations particularly those from the developed nations will provide us a better idea on how to face disaster and how to recover.

However, with the emergence of social network media such as Facebook and Twitter which might likely to cause even much severe damages than it supposed to be. This is because the general public would tend to believe these rumours which come from these sources. This is the challenge that the marketing team in the organisations are facing and they required to quickly come up with some immediate solutions. On the other hand, management will also require the public relation department to develop a damage control strategy as to minimise the negative effect that caused by a crisis as well as the rumours spread by those irresponsible individuals.

Management needed to think of ways to regain tourists in terms of number of their confidence. According to Gut & Jarrell (2007), it is important to reach out new customers, reconnect the existing ones as a way to increase the opportunity for business growth. Management has to be aware that safety becomes the number one concern of the customers today hence organisation needed to provide the necessary assurances. Amongst others, the marketing and public relation staff would not only play the role of reaffirming the organisation's old images as well as emphasise that the destination of the tourists to be visiting is safe. While the government may instruct organisation to provide full refund in the event of any disaster occurs. Management should consider on providing a more attractive employment packages to lure individuals to join the organisation. With the training for the staff on crisis management is in place, this could well save investors substantial amounts of money which could in turn channel this amount to be used promotions as well as advertisements in the future.

Conclusions and Potential Future Studies

In Malaysia, tourism is one of the potential industries contributing to the national economy, social and infrastructure development. Corresponding to the recent tourism crises in Malaysia, it implies the inability and weakness of all parties in dissolving the crisis through addressing an effective crisis

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

165

management. Despite many researches have studied on tourism crisis management, it is witnessed that tourism industry remains vulnerable and susceptible to unforeseen crises. Therefore, this study is aimed to examine the challenging response of Malaysia to the tourism crises and disasters and to identify the main determinants of crisis management. Meanwhile, a contemporary crisis management framework is developed to address the emerging crises in tourism industry. From the literature review of this study, three prominent determinants has identified, namely [1] communications system, [2] organisational structure and [3] the role of stakeholders to illustrate an ideal contemporary crisis management framework to address the tourism crises experienced by Malaysians.

The findings of this study, nonetheless, it is worth to consider several obvious limitations which may not applicable to provide a complete picture to generalise the idea of global tourism crisis management. Firstly, this research is merely focusing on Malaysian's experience in tourism industry. Hence, the proposed conceptual framework for this study might not well-addressed to the actual condition in other geographical areas or across other cultural environments with different managerial perspectives. Furthermore, there are other unexamined determinants such as technology adoption, which could be prominent to the study of tourism crises management. This simplified prescriptive model might not able to rationalise the overall effectiveness of crisis management. As above discussions, those limitations of this study could be considered for future research and improvement.

References

Ashley, C., Goodwin, H., & McNab, D. (2005). Making tourism count for the local economy in Dominican Republic ideas for good practice.

Boin, A., Hart, P. T., McConnell, A., & Preston, T. (2010). Leadership style, crisis response and blame management: The case of Hurricane Katrina. *Public Administration*, *88*(3), 706-723.

Byrd, E. T. (2007). Stakeholders in sustainable tourism development and their roles: Applying stakeholder theory to sustainable tourism development. *Tourism Review, 62*(2), 6-13.

Cassedy, K. (1991) *Crisis Management Planning in the Travel and Tourism Industry: A Study of Three Destinations and a Crisis Management Planning Manual.* San Francisco: Pacific Asia Travel Association (PATA).

Coombs, T. (1999). *Ongoing Crisis Communication: Planning, Managing and Responding*. Thousand Oaks, CA: Sage.

Cushnahan, G. (2004). Crisis management in small-scale tourism. *Journal of Travel & Tourism Marketing, 15*(4), 323-338.

De Sausmarez, N. (2004). Crisis management for the tourism sector: Preliminary considerations in policy development. *Tourism and Hospitality Planning & Development, 1*(2), 157-172.

Faulkner, B. (2001). Towards a framework for tourism disaster management. *Tourism Management*, *22*(2), 135-147.

Ferrell, O. C., Fraedrich, J., & Farrell, L. (2011). *Business Ethics: Ethical Decison Making and Cases* (8th ed.). South-Western: Cengage Learning.

Freeman, R. E. (2010). *Strategic Management: A Stakeholder Approach*. Cambridge University Press.

Gut, P. & Jarrell, S. (2007). Silver lining on a dark cloud: The impact of 9/11 on a regional tourist destination. *Journal of Travel Research*, *46*(2), 147-153.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

166

Hart, P. T. (1993). Symbols, rituals and power: The lost dimensions of crisis management. *Journal of Contingencies and Crisis Management*, *1*(1), 36-50.

Heath, R. (1995). The Kobe earthquake: Some realities of strategic management of crises and disasters. *Disaster Prevention and Management*, *4*(5), 11-24.

Helsloot, I. & Ruitenberg, A. (2004). Citizens response to disasters: A survey of literature and some practical implications, *Journal of Contingencies and Crisis Management*, *12*(3), 98-111.

Henderson, J. C. (2003). Communicating in a crisis: Flight SQ 006. *Tourism Management*, *24*, 279-287.

Henderson, J. C., & Ng, A. (2004). Responding to crisis: Severe acute respiratory syndrome (SARS) and hotels in Singapore. *International Journal of Tourism Research*, *6*(6), 411-419.

Hitchcock, M., & Darma Putra, I. N. (2005). The Bali bombings: Tourism crisis management and conflict avoidance. *Current Issues in Tourism*, *8*(1), 62-76.

Huang, J. H., & Min, J. C. (2002). Earthquake devastation and recovery in tourism: the Taiwan case. *Tourism Management*, *23*(2), 145-154.

Huang, Y. C., Tseng, Y. P., & Petrick, J. F. (2008). Crisis management planning to restore tourism after disasters: a case study from Taiwan. *Journal of Travel & Tourism Marketing*, *23*(2-4), 203-221.

Jenkins, C. L. (1982). The use of investment incentives for tourism projects in developing countries. *Tourism Management*, *3*(2), 91-97.

Kruja, D., & Hasaj, A. (2010). Comparisons of stakeholders' perception towards the sustainable tourism development and its impacts in Shkodra Region (Albania). *Turizam, 14*(1), 1-12.

Marra, F. (1998). Crisis communication plans: Poor predictors of excellence crisis public relations. *Public Relations Review*, *24*(4), 461–474.

McKercher, B., & Chon, K. (2004). The over-reaction to SARS and the collapse of Asian tourism. *Annals of Tourism Research, 31*(3), 716–719.

McKercher, B. & Young, I. (1999). The potential impact of the Millennium Bug on tourism. *Tourism Management 20*(4), 533–537.

Mistilis, N., & Sheldon, P. J. (2006). Knowledge management for tourism crises and disasters. *Tourism Review International, 10*(1-2), 39-46.

Peters, M., & Pikkemaat, B. (2006). Crisis Management in Alpine Winter Sports Resorts – The 1999 Avalanche Disaster in Tyrol. *Journal of Travel & Tourism Marketing*, *19*(2-3), 9-20.

Paraskevas, A., Altinay, L., McLean, J., & Cooper, C. (2013). Crisis knowledge in tourism: Types, flows and governance. *Annals of Tourism Research, 41*, 130-152.

Pforr, C., & Hosie, P. J. (2008). Crisis management in tourism. *Journal of Travel & Tourism Marketing, 23*(2-4), 249-264.

Ray, S. (1999). *Strategic communication in crisis management: Lessons from the airline industry*. Westport: Quorum Books.

Ritchie, B. W. (2004). Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry. *Tourism management*, *25*(6), 669-683.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

167

Rodriguez Toubes Muñiz, D., & Fraiz Brea, J. A. (2011). Crisis management in tourism: The emergency side of the sustainability. *Tourism & Management Studies*, (6), 49-58.

Rosenthal, U., & Pijnenburg, B. (1990). Simulation-oriented scenarios. *Contemporary Crises*, *14*(4), 277-283.

Seeger, M. (2006). Best practices in crisis communication: An expert panel process. *Journal of Applied Communication Research, 34*(3), 232-244.

Shaluf, I. M., & Said, A. M. (2003). A review of disaster and crisis. *Disaster Prevention and Management*, *12*(1), 24-32.

Sönmez, S. F., Apostolopoulos, Y., & Tarlow, P. (1999). Tourism in crisis: Managing the effects of terrorism. *Journal of Travel Research*, *38*(1), 13–18.

Tosun, C. (2000). Limits to community participation in the tourism development process in developing countries. *Tourism Management*, *21*(6), 613-633.

Tribe, J. (1997). Corporate strategy for tourism. Suffolk: International Thomson Business Press.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

168

Factors Influencing Green Purchasing Behaviour among Generation Y in Malaysia: A Conceptual Framework

Tun-Cheng Chong[a], Tun-Pin Chong[b], Yen-San Yip[c], Shwu-Shing Ng[d], Julian Teh[e], Yong-Hooi Lim[f], Hooi-Ching Khor[g], Thamil Durai Chelliah[h]

[a]*Multimedia University (MMU), Malaysia, chongtc85@yahoo.com*

[b]*Universiti Tunku Abdul Rahman (UTAR), Malaysia, chongtp@utar.edu.my*

[c]*Universiti Tunku Abdul Rahman (UTAR), Malaysia, yipys@utar.edu.my*

[d]*Universiti Tunku Abdul Rahman (UTAR), Malaysia, nsshing@utar.edu.my*

[e]*Universiti Tunku Abdul Rahman (UTAR), Malaysia, tehhl@utar.edu.my*

[f]*Universiti Tunku Abdul Rahman (UTAR), Malaysia, limyh@utar.edu.my*

[g]*Universiti Tunku Abdul Rahman (UTAR), Malaysia, khorhc@utar.edu.my*

[h]*Quest International University, Malaysia, thamil.durai@qiup.edu.my*

Abstract

Air pollution and poor water quality is an increasing concern that plagues society today. The majority of products used in our daily life although appearing to be innocuous at first, may be somewhat harmful to the environment in the long term. Environmental issues have become a rising concern among governments worldwide, societies and even business organizations. Recently, the ideology of a 'Green Concept' within marketing literature has grabbed the attention of researchers worldwide. Despite the importance of the 'Green Concept' however, there appears to be a lack of studies that investigate the purchase behaviour of green products, more so among generation Y consumers in Malaysia. As advocated within literature, different 'Green Purchasing Behaviours' require different marketing strategies in order to penetrate a multi-segmented consumer market. This paper therefore attempts to fill this gap by examining the factors that influence Green Purchasing Behaviour among generation Y consumers in Malaysia. Generation Y consumers play a significant impact on the Malaysian economy, as they possess powerful aggregate spending abilities and a unique purchasing style. This paper attempts to provide valuable insights for managers to plan market penetration strategies, while simultaneously leveraging on the novelty of the 'Green Concept'. Managers leveraging this strategy will not just benefit in terms of better financial gains, but also on the discovery of new revenue streams, and the entrance into previously untapped market segments

Keywords: Green Purchasing Behaviour, Green Concept, Environmental Concern, Green Product, Generation Y.

Introduction

According to a study by the United Nations (as cited in Huang and Wu, 2010), humans have dramatically altered the earth's ecosystems over the past five (5) decades. This giant wave has been pushed towards the other continents of the world. Most of the products we used in our daily routine were harmful to the environment and some of them also create problems like pollution which destroys the environment gradually. Problems like air pollution and poor water quality are very common nowadays. Urban residents are often exposed to the higher level of pollution and other types of environmental

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

169

deterioration (Getzner & Grabner-Krauter, 2004). In most developing countries, people are suffering from the issue of pollution. To a certain extend the issue of pollution are being related to the environmental deterioration. These issues are very crucial and threatening to the health concern of the people (Makover, 2009). Recently, environment has come up to become one of the hot issues for government, society as well as the business organization (ElTayeb, Zailani & Krishnaswamy, 2010).

For Malaysia, as a developing country, the environmental issues usually increase due to the overwhelming development and at the same time, there is no increment of people who shows concern to nurture a good environment as there is more development going on in the country. Green Purchasing is central to this societal transformation (Hartmann & Ibanez, 2006). High level of exploitation to ecosystems often relates to the destruction of Mother Nature which would lead to numerous hazardous conditions to human health. Society in most developed country has encouraged people on recycling efforts, energy conservation and implementation of eco-oriented manufacturing laws since decades ago (Stone, Joseph & Blodgett, 2004). There are some companies that pursue the vision of zero waste. A lot of countries have invested efforts and resources to create awareness towards the importance of environmental concern. Since a few decades ago, pro-environmental issues, which are known as green issues, have been introduced among people from around the world. Hence, green concept would be brought into attention by various parties involved (Makover, 2009).

Green concept has been nurtured to people around the globe in order to show more concern to Mother Nature. Consumers who buy environmental-friendly products based on certain environmental attitude would typically act in the same way in their other daily activities (Getzner & Grabner-Krauter, 2004). People who have a strong environmental attitude tend to exhibit it via their purchasing behaviour by making the purchase on the green products or products that create lesser harm to the environment. Green product innovation performance has been defined as the performance in product innovation that is related to green innovation which is inclusive of the energy conservation, pollution prevention, waste recycling and toxicity elimination and green product designs. There are a growing number of consumers who seek environmentally friendly choice (Huang & Wu, 2010).

A lot of multi-national companies have introduced green marketing into their marketing strategy due to economic concern. Companies must first segment their respective market accordingly before they are able to target the green consumer segments (Schlegelmilch, Bohlen & Diamantopoulos, 1996). Marketers have been working hard to get to know more about their customers through various types of studies and researches. It is an important challenge for marketers to identify which group of consumers who are willing to pay more for environmental friendly products and the reasons behind (Laroche, Bergeron & Barbaro-Forleo, 2001). Researchers have also twist their research interest from common and conventional consumer behaviour towards green purchasing behaviour in order to study the behaviour of green consumers in a more detailed way.

According to Hartmann and Ibanez (2006), the earliest publication on green consumer behaviour as an important issue to marketing planners appeared during the 1970s. Interest of researches related to the environmental issues had begun since the early 1970s (Kilbourne, Beckmann & Thelen, 2002). This shows that the green concept has been evolving globally for more than 40 years. However, there are still much to study about this concept especially towards the purchasing behaviour to the green concept products (Huang & Wu, 2010).

Different green purchasing behaviour would require a different marketing strategy as to penetrate into a different consumer market (Chan & Lau, 2000). Malaysia is lack of studies that investigate about the Green purchasing behaviour among Generation Y. This paper is designed to examine the factors influencing the Green purchasing behaviour among Generation Y in Malaysia. Generation Y, the emerging generation with powerful aggregate spending and has developed a unique purchasing style. The study on Generation Y would let us grasp well on what are their needs and wants for their life (Bakewell & Mitchell, 2003; Cui, Trent, Sullivan & Matiru, 2003). Therefore, this paper will provide valuable understanding to ensure marketers could develop an effective marketing strategy to apprehend this potential of future market in order to open up a new revenue stream for their business. This could be very crucial in the future marketing strategy development which would further decide and predict on the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

170

future prospective of the company. Therefore, this paper aims to bridge the research gap as to propose what are the factors influencing Green purchasing behaviour among Generation Y in Malaysia.

Literature Review

Green Purchasing Behaviour

Recently, many consumers are more concern and sensitive with issues of environmental (Diekmann & Franzen, 1999; Ali, Khan & Ahmed, 2011). According to Stern, Abel, Dietz, Guagnano and Kalof (1999), green purchasing behaviour is a pro-social behaviour. Green purchasing behaviour is also known as the consumption of products that are beneficial to the environment, recyclable/reusable and/or responsible to the environmental concern (Lee, 2009). Min and Galle (2001) define green purchasing as an environmentally-conscious purchasing practices that reduces sources of waste and promotes recycling and reclamation of purchased material without adversely affecting performance requirements of such materials.

Green purchasing behaviour could be further described as the green product consumption pattern of a certain group of consumers. This group of consumers has high level of desire to solve the environmental issue. They hope that they can become a role model and help to protect the environment (McCarty & Shrum, 2001). They would behave in such a way like reduce the use of plastic bags, encourage recycling activity, reduce the creation of rubbish which also means encourage to reuse most of the reusable materials and also cut down activities and events that would lead to various kind of environmental pollution and destruction. This means they have a very different characteristic of consumption behaviour which is very important standard of segmentation for those companies with strong commitment towards environmental concern (Li, Zhai & Bao, 2010). An effective marketing strategy is required to deliver a clear message to the proposed group of market as part of the marketing process by every green company around the world. In this paper, the green purchasing behaviour would refer to the behavioural study in purchasing green products which are able to offer the benefits to our environment (Choice, 2010).

Generation Y

The term Generation Y has being referred to various numbers of definitions. However for this paper, the definition has been taken from US census bureau (2011) where it states that Generation Y was referred to the people who were born between 1982 and 1991 where this could be further elaborated by saying Generation Y refers to the population of people that aged between 23 and 32 in year 2014. The most distinctive features of this generation is that people of this generation is the most technically illiterate and technologically savvy (Ang, Leong & Lee, 2009). This also means that Generation Y is more technological savvy and is more exposed to the world of electronically technological gadgets. People that fall in this generation have also been known as the Millennial Generation. Generation Y are often to be the early adopters of new technologies (Kumar & Lim, 2008). It has been indicated that for technological gadgets, the best market would be the Generation Y people as they are the early adopters to new technologies. People born as Generation Y are globally and environmentally conscious, open to chronic boredom, short attention spans, disruptive behaviour and have a mistrust of the media (Foscht, Schloffer, Maloles III & Chia, 2009).

As refer to the record of Malaysia statistics department (2014), the population in Malaysia for year 2014 is numbered at roughly 30.17 million. People aged between 23 and 32 are estimated at 4.77 million or roughly 15.81% out from the Malaysia total population in year of 2014. Most of the people that fall within this age group are graduated students from their tertiary level of education. They are people that had gotten involved in their career path. The bold, brash and facebooking Generation Y or otherwise known as Millennial, tend to have a blackberry in one hand, an ear to their iphone and an eye on their latest gadget (Ang et al., 2009). Recently, may attentions have been given to Generation Y because of their huge purchasing power. They are "Idealistic, game-changer, i-Pad toting, tech-savvy, social-media-savvy and globetrotting." People fall within this age group are those consumers that would eventually take over the global market, sooner or later. Even the Prime Minister of Malaysia, Datuk Seri Najib Tun Razak, also agreed with the importance of Generation Y (Cui et al., 2003; The rakyat post, 2014).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

171

Problem Statement and Propositions Development

Many researchers and scientists have found out that the ozone layer is thinning due to various human activities. This has somehow destroyed the environment gradually and led to various natural disasters which were claimed to show the significant relationship between environmental protection and the natural disasters. Weather change for countries that experience the four seasons is one of the major changes that could be seen throughout the world. Therefore, there are more and more products that have been created by delivering the values and mindset to the consumers that it is safe for Earth (Hartmann & Ibanez, 2006).

People who have a strong environmental attitude tend to exhibit it via their purchasing behaviour by making the purchase on the green products or products that create lesser harm to the environment (Huang & Wu, 2010). Green consumers or sometimes called pro-environmental consumers are defined as consumers who make their buying decisions, at least partly, on the basis of personal environmental criteria (Hartmann & Ibanez, 2006). Back in the mid of 1950s, green concept was rarely heard of because most people do not show concern and awareness on the importance of it. Today, most companies are showing concern to the environment and besides that, there are also various non-governmental organizations implementing a number of certification or benchmarks so that a lot of standards could be formed in order to achieve a better and productive nation; for example the ISO 14000 and ISO 14001 are the example of Environmental Management Standard benchmark. As the number of green products increase tremendously, it has indirectly increase the environmental consciousness among consumers that affect their consumer behaviour (Schlegelmilch et al., 1996). Companies that are involved with green concept tend to look for a new alternative to enhance their business as well as their competitive advantage and hence integrate them into their overall business strategy (Huang & Wu, 2010).

Malaysia is a multi racial country built-up by the major three races of Malays, Chinese and Indians. Besides, there are various religions being practiced by the people in Malaysia. Besides the differences of races and religions, Malaysians also suffer from the gap of household income which might lead to the different level of concern of the environment. Recently, the Malaysia government has urged the community to reduce the use of plastic bags which would eventually help to reduce the disposal of garbage that occupy large areas of landfill space (Getzner & Grabner-Krauter, 2004). In Malaysia, most children were taught about recycling and reducing the use of plastic bags as both of these activities could help to reduce waste and reduce the rubbish as well as to create lesser pollution to the environment. At the same time, Malaysians also have been taught that plastics were made from some material that requires a long period of time to degrade. When they grew up, they tend to have a stronger mindset on environmental conservation. Today, younger generation or Generation Y people tend to have a bigger purchasing power as more parents tended to provide more in terms of financial resources to their children in order to fulfill their needs (Foscht et al., 2009). Generation Y is the generation of consumers that would take over the global market very soon. Although this generation is somewhat smaller than its predecessor; the baby boomers, Generation Y is the emerging generation with powerful aggregate spending (Cui et al., 2003).

Therefore, marketers could further develop an effective marketing strategy to tackle this future booming consumer market. Different purchasing behaviour would require a different marketing strategy as to penetrate into a different consumer market (Chan & Lau, 2000). People fall within this age group are no longer worry-free teens, but they are young enough to start establishing values and buying principle that may last a lifetime (Cui et al., 2003). Besides, people from this age group have a substantially huge unrestricted buying power relative to their incomes (Foscht et al., 2009). Many companies were established since then to capture as well as to penetrate into this new booming marketplace which was filled by the green concept and stays apart from most of the giant competitors (Hartmann & Ibanez, 2006).

There are a number of research papers that have been done with accordance of the need to understand the differences of Green purchasing behaviour among individuals around the world such as in Thailand (Arttachariya, n.d.), China (Chan & Lau, 2000), Greece (Tilikidou, 2007), New Zealand (Christopher Gan, Han, Ozanne & Kao, 2008), Hong Kong (Lee, 2009) and United Kingdom

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

172

(Schlegelmilch et al., 1996; Young, Hwang, McDonald & Oates, 2010). However, Malaysia has yet been explored fully. Malaysia is lack of studies that investigate about the Green purchasing behaviour among Generation Y. In order to understand the environmental movement of the population in a particular country, a good stepping stone is to conduct a thorough study on how the consumers view pro-environmental or green issues and also how are these views being reflected in their consumer behaviour on green issues (Chan & Lau, 2000). A study on how its consumers view and feel about the green issues as well as their behaviour towards this issue would serve as a good starting point (Chan, 2001).

Therefore, it is very crucial to know what the identical factors that influence green purchasing behaviour among Generation Y in Malaysia. This research also expected marketers to move closer towards this group of people in order to know them better from their psychological or internal perspective. This group of people usually is the hardest to be determined because this generation of people are those who just built or still building up their carriers with various commitments in their way. Therefore, they usually would behave differently as compared to the other generation of people (ElTayeb et al., 2010). This suggests a gap in the literature and this gap has prompted the research problem investigated in this paper. Hence, this paper aims to fill the gap in the literature through identification of the following three propositions.

Environmental Attitude

Allport (1935) defined attitude as individual readiness and responses towards certain objects or situations. Environmental attitudes refer to individual's self concept which he or she perceived to be an integral part of the natural environment. It's also means that consumers who make green products purchase decisions are based on their environmental attitude (Tan & Lau, 2010). Back in the 1990s, there are numerous publications on environmental attitude and their influences on environmental behaviour (Hartmann & Ibanez, 2006). However, few studies have been done to investigate the significant level of influence of environmental attitude towards the green purchasing behaviour. According to Barber, Taylor and Strick (2010), factors which will influence environmental attitude are habits, values, beliefs and norms which guide the respective consumer throughout his decision making process. Jansson, Marell and Nordlund (2010) also mentioned that habits will influence behavioural changes and transform attitudinal factors into the green behaviour. Furthermore, Hartmann and Ibanez (2006) have studied the level of knowledge towards green issues as the cognitive component of environmental attitude. Most analysis of attitudes pointed out that knowledge contributes to high attitude level (Barber et al., 2010). Up to certain extent, people that are environmental conscious will try to protect and nurture a good environment in their own way. According to Follows and Jobber (2000), environmental attitude also means to reuse most of the reusable materials and also cut down activities and events that would lead to various kinds of environmental pollution and destruction. Most of the young adults nowadays would try to reduce the use of plastic bags, encourage recycling activity, reduce the creation of rubbish and so on (Bakewell & Mitchell, 2003). Li et al. (2010) found out that consumer's decision making style often reflect their type of psychological decision making when they make a purchase on goods or services. Its means in the context of green consumerism, every environmental conscious consumer will have the characteristics of green consumption behaviour when he/ she made their buying decisions. Environmental attitude has been very influential to the green purchasing behaviour exert from the consumers in the context of Generation Y in Malaysia. According to the result by Chen (2009), the result found out that consumer's concern about health and environmental attitudes has form a positive relationship towards green product. Besides, Chen (2009) also supports his finding by showing that environmental attitudes will influence young consumers towards green products through his/her lifestyle. Therefore, we proposed that environmental attitude has positive relationship towards green purchasing behaviour among Generation Y in Malaysia.

Proposition 1: Environmental attitude has a positive relationship towards green purchasing behaviour among Generation Y in Malaysia.

Environmental Concern

Environmental concern being refers to the emotional dispositions as individual indignation about the destruction of the Mother Nature (Hartmann & Ibanez, 2006). Consumers who are aware of the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

173

importance of the environment would eventually show and exhibit their concerns through various way of action. Barber et al. (2010) pointed out that environmental concern could be taken as an element that covers a wide range of cognitive and behavioural processes where it depends on the psychological stimuli that could be evoked in a very unique and different way. For instance, consumers that are environmentally concern, they are continually demanding for products that are produced without environmental exploitation (Chen, 2009). The environmental concern in terms of the motivation, expertise and personality may influence and determine on how early does an individual start on the adoption process towards the green product purchasing behaviour (Thogersen, Haugaard & Olesen, 2010). There are renewed focus on climate change, water issues, toxic products and other environmental and public health issues among our nations nowadays. Many consumers are responsive to the impact of destructions which will bring to our next generations (Makover, 2009). There are numerous surveys carried out in the past that showed a high level of environmental concern among the majority of the population (Hartmann & Ibanez, 2006; Choy & Prizzia, 2010; Jansson et al., 2010; Kanchanapibul, Lacka, Wang & Chan, 2013). Consumers' environmental concern actions have been reflected in the increased intention of buying environmental-friendly products (Kalafatis, Pollard, East & Tsogas, 1999). Broadly speaking, various studies have concluded that consumers who are concern with the environment issues are significantly engaged in green purchasing behaviour. Moreover, there are studies which indicate that there are some relationship that exists between environmental concerns alongside with the age of the consumers. Previous studies found out that young generations these days are more consciously aware of the importance of green products and are willing to purchase environmentally friendly products with innovative ideas than other generations (Lee, 2008; Ha, Muthaly, & Akamavi, 2010; Kanchanapibul et al., 2013). Kanchanapibul et al. (2013) mentioned that young consumers with strong affective responses to green issues will intend to involve in green purchasing. They tend to buy from a perceived socially responsible producers or firms. In order to target this group of consumers, most companies try to align themselves with green initiatives such as reusing, recycling and reducing in their products or services (Grove, Fisk, Pickett & Kangun, 1996; Shaw & Shiu, 2003; Kanchanapibul et al., 2013). Therefore, it is important for most green producers to take into considerations on the implementation of environmental management systems in their products or services. It is to make sure that they won't lose the growing target market of young consumers who have shift to green purchasing behaviour due to the ethical concern on the environment. Hence, we propose that environmental concern will has a positive relationship towards green purchasing behavior among Generation Y in Malaysia.

Proposition 2: Environmental concern has a positive relationship towards green purchasing behaviour among Generation Y in Malaysia.

Social Influence – Friends and Family

Social influences refers to actions or reactions, thoughts or behaviours are influenced by family member and friends from the surroundings (Kaze, 2010). The main factor that plays an important contribution role between friends and family is the word-of-mouth. Gavish, Shoham and Ruvio (2010) pointed out that the main and primary source of information for a child is mainly from their respective experienced parent or family members. Influences from family members and friends are very crucial for most marketing effect where the level of trust between the influencer and the person being influence is high and usually lead to the highest significant level in influencing the decision making process of an individual. In most of the cases, the most effective medium of knowledge sharing is between family members and friends (Castano, Perez & Quintanilla, 2010). A statement by Somnath (2010) mentioned that the green purchasing behaviour sometimes is being influenced by the health condition of family members. It seems that an individual purchasing behaviour is also influenced by the health concern regardless whether it is from family members or from friends or even for the particular individual. Yan and Xu (2010) stated in their previous research paper that parent is the primary agent in the context of peer influence – skills, knowledge and values were provided by parent to help children to understand how does the world of consumptions would function. The communication pattern between parent and children about consumptions and green behaviour would affect the role of perception by the individual as well as their behaviour towards the purchase of environmental friendly products. An obvious communication between parent and children could influence the children's ability to purchase and use goods in a rational and efficient manner (Yan & Xu, 2010). It is clear that family communication would significantly influence the green purchasing behaviour of an individual. Due to overwhelming adaptation to the internet usage, social

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

174

networking has really expanded the range of friend to beyond unlimited boundary where an individual could be making friends from all over the globe. Shin (2010) says that the implementation and the wide-use of social networking today had created a new medium of communication as well as a medium for information sharing for people; everyone could have a new form of communication between friends as well as to acquire information that could be shared worldwide. Thus, direct peer-to-peer interaction with these new medium and indirect observation of peer's environmental-friendly behaviour would eventually influence an individual's view towards environmental-friendly behaviour (Yan & Xu, 2010). Fan and Li (2010) found out that both parent and peers are important facilitators to an individual's learning stage to become a consumer where the parents would have great influential ability to the early stage of the children's consumer behaviour during the phase of child growth while peers would eventually take over the role of parent to influence on an individual's behaviour on consumer products that includes the green products. Paladino and Ng (2013) found out that social influences - subjective norms have significant relationships with green purchasing behaviours of young consumers. Their studies revealed that young business students in Australia universities tend to engage in pro-environmental behaviours due to peers pressure. Therefore, we propose that social influences by family and friends will have a positive relationship towards green purchasing behavior among Generation Y in Malaysia.

Proposition 3: Social influences by family and friends have a positive relationship towards green purchasing behaviour among Generation Y in Malaysia.

Implications

This paper contributes to the existing body of knowledge by focusing on green purchasing behaviour among Generation Y in Malaysia which might have been overlooked by most of the researchers. Many researchers have more focused on the general purchasing behaviour instead of more specific way such as purchasing behaviour towards green products. Hence, this paper provides a better understanding on the factors influencing green purchasing behaviour among Generation Y in Malaysia. From managerial implication perspective, green marketers should understand that purchasing behaviour towards green products among Generation Y is not only relying on a single integrated factor, but it could be affected by many factors such as environmental attitude, environmental concern as well as social influences. In order to target this generation of consumer segment, different marketing strategy is required so that they can be more competitive and sustainable over the time. Therefore, this paper can help green marketers and other marketing decision makers to understand better Generation Y from their psychological or internal perspective. This can help them to develop an effective marketing strategy to meet the specific needs of this consumer group. Besides, this paper also can provide valuable insight for managers to plan market penetration strategies. Managers leveraging this strategy will benefit on the discovery of new revenue streams as well as the entrance into previously untapped market segments. At the end, they can have better financial gains.

Conclusion

This paper is to propose the factors that influence green purchasing behaviour among Generation Y in Malaysia which might have been left out by many researchers. As such, this paper fills this research gap by proposing on how environmental attitude, environmental concern and social influences can affect green purchasing behaviour among Generation Y in Malaysia. This paper provided a useful proposal for green marketers and other marketing decision makers to tackle the future booming consumer market.

References

Ali, A., Khan, A. A., & Ahmed, I. (2011). Determinants of Pakistani consumers' green purchasing behaviour: Some Insights from a developing country. *International Journal of Business and Social Science, 2*(3), 217-226.

Allport, G. W. (1935). *Attitudes: In a handbook of social psychology.* Worcester, MA: Clark University Press.

Ang, E., Leong, H. Y., & Lee, K. S. (2009). Gen Y - Technically savvy. *The Star Online*. Retrieved January 28, 2011, from http://biz.thestar.com.my/news/story.asp?file=/2009/10/24/business/4771567&sec=business

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

175

Arttachariya, P. (n.d.). Environmentalism and green purchasing behaviour: A study on graduate students in Bangkok, Thailand. *Assumption University, Thailand.*

Bakewell, C., & Mitchell, V. W. (2003). Generation Y female consumer decision-making styles. *International Journal of Retail and Distribution Management, 31*(2), 95-106.

Barber, N., Taylor, D. C., & Strick, S. (2010). Selective marketing to environmentally concerned wine consumers: A case for location, gender and age. *Journal of Consumer Marketing, 27*(1), 64-75.

Castano, R., Perez, M. E., & Quintanilla, C. (2010). Cross-border shopping: Family narratives. *Qualitative Market Research: An International Journal, 13*(1), 45-57.

Chan, R. Y. K. (2001). Determinants of Chinese consumers' green purchase behaviour. *Psychology and Marketing, 18*(4), 389-413.

Chan, R. Y. K., & Lau, L. B. Y. (2000). Antecedents of green purchases: A survey in China. *Journal of Consumer Marketing, 17* (4), 338-357.

Chen, M. F. (2009). Attitude toward organic foods among Taiwanese as related to health consciousness, environmental attitudes and the mediating effects of a healthy lifestyle. *British Food Journal, 111*(2), 165-178.

Choice, T. (2010). *Sins of green washing: Home and family edition.* Retrieved August 13, 2014, from http:// sinsofgreenwashing.org/findings/greenwashingreport-2010/

Choy, D., & Prizzia, R. (2010). Consumer behaviour and environmental quality in Hawaii. *Management of Environmental Quality: An International Journal, 21*(3), 290-298.

Christopher Gan., Han, Y. W., Ozanne, L., & Kao, T. H. (2008). Consumers' purchasing behaviour towards green products in New Zealand. *Innovative Marketing, 4*(1), 93-102.

Cui, Y., Trent, E. S., Sullivan, P. M., & Matiru, G. M. (2003). Cause-related marketing: How Generation Y responds. *International Journal of Retail Distribution Management, 31*(6), 310-320.

Diekmann, A., & Franzen, A. (1999). The wealth of nations and environmental concern. *Environment and Behaviour, 31*(4), 540-549.

ElTayeb, T. K., Zailani, S., & Krishnaswamy, J. (2010). The examination on the drivers for green purchase adoption among EMS 14001 certified companies in Malaysia. *Journal of Manufacturing Technology and Management, 21*(2), 206-225.

Fan, Y., & Li, Y. (2010). Children's buying behaviour in China. *Marketing Intelligence and Planning, 28*(2), 170-187.

Follows, S. B., & Jobber, D. (2000). Environmentally responsible purchase behaviour: A test of a consumer model. *European Journal of Marketing, 34*(5/6), 734-746.

Foscht, T., Schloffer, J., Maloles III, C., & Chia, S. L. (2009). Assessing the outcomes of Generation-Y customers' loyalty. *International Journal of Bank Marketing, 27*(3), 218-241.

Gavish, Y., Shoham, A., & Ruvio, A. (2010). A qualitative study of mother-adolescent daughter-vicarious role model consumption interaction. *Journal of Consumer Marketing, 27*(1), 43-56.

Getzner, M., & Grabner-Krauter, S. (2004). Consumer preferences and marketing strategies for green shares specifics of the Austrian market. *The International Journal of Bank Marketing, 22*(4), 260-278.

Grove, S. J., Fisk, R. P., Pickett, G. M., & Kangun, N. (1996). Going green in the service sector: Social responsibility issues, implications and implementation. *European Journal of Marketing, 30*(5), 56-66.

Ha, H. Y., Muthaly, S. K., & Akamavi, R. K. (2010). Alternative explanations of online repurchasing behavioural intentions, a comparison study of Korean and UK young consumers. *European Journal of Marketing, 44*(6), 874-904.

Hartmann, P., & Ibanez, V. A. (2006). Green value added. *Marketing Intelligence and Planning, 24*(7), 673-680.

Huang, Y. C., & Wu, Y. C. J. (2010). The effects of organizational factors on green new product success: Evidence from the high-tech industries in Taiwan. *Management Decision, 48*(10), 1539-1567.

Jansson, J., Marell, A., & Nordlund, A. (2010). Green consumer behaviour: determinants of curtailment and eco-innovation adoption. *Journal of Consumer Marketing, 27*(4), 358-370.

Kalafatis, S. P., Pollard, M., East, R., & Tsogas, M. H. (1999). Green marketing and Ajzen's theory of planned behaviour: A cross market examination. *Journal of Consumer Marketing, 16*(5), 441-460.

Kanchanapibul, M., Lacka, M., Wang, S. J., & Chan, H.K. (2013). An empirical investigation of green purchase behaviour among the young generation. *Journal of Cleaner Production, 66*, 528-536.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

176

Kaze, V. (2010). The impact of customer values on purchasing behaviour: A case of Latvian insurance market. *Economics and Management, 15*, 605-611.

Kilbourne, W. E., Beckmann, S. C., & Thelen, E. (2002). The role of the dominant social paradigm in environmental attitudes: A multinational examination. *Journal of Business Research, 55*, 193-204

Kumar, A., & Lim, H. (2008). Age differences in mobile service perceptions: Comparison of Generation Y and baby boomers. *Journal of Services Marketing, 22*(7), 568-577.

Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing, 18(6), 503-520.*

Lee, K. (2008). Opportunities for green marketing: Young consumers. *Marketing Intelligence and Planning, 26*(6), 573-586.

Lee, K. (2009). Gender differences in Hong Kong adolescent consumer' green purchasing behaviour. *Journal of Consumer Marketing, 26*(2), 87-96.

Li, B. K., Zhai, C. X., & Bao, W. M. (2010). An empirical study on the decision-making styles of the Chinese peasant consumers. *Journal of Consumer Marketing, 27*(7), 629-637.

Makover, J. (Eds.). (2009). *Strategies for the green economy: opportunities and challenges in the new world of business.* USA: McGraw-Hill.

Malaysia statistics department (2014). *Server Clock.* Retrieved August 12, 2014, from http://www.statistics.gov.my/portal/populationclockNEW/BI.php

McCarty, J. A.. & Shrum, L. J. (2001). The influence of individualism, collectivism and locus of control on environmental beliefs and behaviour. *Journal of Public Policy and Marketing, 20* (1), 93-104.

Min, H., & Galle, W. P. (2001). Green purchasing practices of US firms. *International Journal of Operations & Production Management, 21*(9), 1222-1238.

Paladino, A., & Ng, S. (2013). An examination of the influences on 'green' mobile phone purchases among young business students: An empirical analysis. *Environmental Education Research*, *19:1*, 118-145.

Schlegelmilch, B. B., Bohlen, G. M., & Diamantopoulos, A. (1996). The link between green purchasing decisions and measures of environmental consciousness. *European Journal of Marketing, 30*(5), 35-55.

Shaw, D., & Shiu, E. (2003). Ethics in consumer choice: A multivariate modeling approach. *European Journal of Marketing, 37*(10), 1485-1498.

Shin, D. H. (2010). Analysis of online social networks: A cross-national study. *Online Information Review, 34*(3), 473-495.

Somnath, C. (2010). Factors influencing organic food purchasing in India - Expert survey insights. *British Food Journal, 112*(8), 902-915.

Stern, P. C., Abel, T., Dietz, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review, 6*(2), 81-97.

Stone, G., Joseph, M., & Blodgett, J. (2004). Towards the creation of an eco-oriented corporate culture: A proposed model of internal and external antecedents leading to industrial firm eco-orientation. *Journal of Business and Industrial Marketing, 19*(1), 68-84.

Tan, B. C., & Lau, T. C. (2010). Attitude towards the environment and green products: Consumers' Perspective. *Management Science and Engineering, 4*(2), 27-39.

The rakyat post (2014). *GEN Y: Hungry, Ambitious as well as Opinionated.* Retrieved August 12, 2014, from http://www.therakyatpost.com/allsides/2014/06/13/gen-y-hungry-ambitious-well-opinionated/#ixzz3AAdLIh2y

Thogersen, J., Haugaard, P., & Olesen, A. (2010). Consumer responses to ecolabels. *European Journal of Marketing, 44*(11/12), 1787-1810.

Tilikidou, I. (2007). The effects of knowledge and attitudes upon Greeks' pro-environmental purchasing behaviour. *Corporate Social Responsibility and Environmental Management, 14*, 121-134.

US census bureau. (2011). *International Data Base.* Retrieved January 28, 2011, from http://www.census.gov/ipc/www/idb/

Yan, R. N., & Xu, H. M. (2010). Understanding green purchase behaviour: College students and socialization agents. *Journal of Family and Consumer Science, 102*(2), 27-32.

Young, C. W., Hwang, K., McDonald, S., & Oates, C. (2010). Sustainable consumption: Green consumer behaviour when purchasing products. *Sustainable Development, 18*(1), 18-31.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

177

Achieving Customer-Brand Engagement for Companies' Sustained Competitiveness: The Effect of Relationship Investments

Zuraidah Zainol[2], Juliana Osman[b], Norsamsinar Samsudin[c], Thuraiya Zakaria[d]

[a]Universiti Pendidikan *Sultan Idris, MALAYSIA, zuraidah@fpe.upsi.edu.my*
[b]*Universiti Pendidikan Sultan Idris, MALAYSIA, juliana@fpe.upsi.edu.my*
[c]*Universiti Pendidikan Sultan Idris, MALAYSIA, norsamsinar@fpe.upsi.edu.my*
[d]*Universiti Pendidikan Sultan Idris, MALAYSIA, thuraiya@fpe.upsi.edu.my*

Abstract

Using the extended Resource Investment Model, this study aims to investigate the effect of customer-brand investments in building a strong customer engagement. Data collected from a sample of 310 mobile phone customers using self-administered questionnaire are analyzed using Structural Equation Modelling (SEM). The findings reveal that customer and brand relationship investments significantly induce the customer to actively engage in a relationship with brand. Besides, the findings indicate that customer investment partially mediates the relationship between perceived brand investment and customer engagement. This study is one of the first to test the applicability of resource investment model in customer-brand relationship context. This study concentrates on the customer's perception of their relationship with mobile phone brand in Malaysia context. Accordingly, this study provides useful insight for companies to develop a strong customer-brand relationship and consequently sustain their competitiveness.

Keywords: customer-brand relationship, relationship investment, perceived brand investment, customer investment, customer engagement

Introduction

The homogeneity of brands and the increasingly demanding customers have led companies to face hyper intense competition. These marketplace forces, if not properly and urgently tackled, will put the companies' competitiveness and survival at risk due to continuous reduction in the market and brand shares, sales and profitability (Carter, 2008; Goodfriend & Agnew, 2008; Passikoff, 2013; Schraft & Micu, 2010; Tripathi, 2009). Accordingly, to secure the market and brand shares as well as to achieve sustained competitiveness and survival, it may no longer sufficient for companies to compete in terms of price, quality or customer satisfaction but need to focus on building a strong customer-brand relationship (Alqahtani, 2011; Carter, 2008; Circles, 2010; Eisingerich & Rubera, 2010; Hess & Story, 2005; Kotler & Armstrong, 2010; Louis & Lombart, 2010; Schraft & Micu, 2010; Story & Hess, 2010; Sung & Choi, 2010). In response, much research has been conducted to delve into the customer-brand relationship (CBR) domain (Sung & Campbell, 2009; Sung & Choi, 2010), particularly to examine the influential factors (e.g. Breivik & Thorbjornsen, 2008; Huang, Cheng, & Farn, 2007; Sung & Campbell, 2009; Sung & Choi, 2010)

2

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

178

as well as the important consequences (e.g. Belaid & Behi, 2011; Eisingerich & Rubera, 2010; Louis & Lombart, 2010) of a strong customer-brand relationship. In identifying the drivers of a strong CBR, most of the extant studies have been primarily focusing on the role of customer and paying little attention on the role of brand in the relationship (Sung & Choi, 2010), although it has been long accepted that contribution from both partners in a relationship is critical to relationship sustainability (Bendapudi & Berry, 1997; Moon & Bonney, 2007; Palmatier, Dant, Grewal, & Evans, 2006). To date, almost all of the CBR studies have adopted the Relationship Investment Model of Rusbult (1983) and consistently revealed satisfaction, investment size (i.e. relationship investment) and alternative attractiveness as predictors of customer commitment. Despite relationship investment (RI) being found as a better predictor of customer intention in establishing a relationship with brand (Sung & Campbell, 2009; Sung & Choi, 2010), in which it has been recognized as being capable to depict both customer and his/her partner in a relationship (Buvik & Andersen, 2011; Dorsch, Carison, Raymond, & Ranson, 2001; Luo, Liu, & Xue, 2009; Morais, Dorsch, & Backman, 2004) and recently revealed as the most influential factors to drive customer retention (Sung & Campbell, 2009; Sung & Choi, 2010), little attempt was made to fully examine the potential of relationship investment in the establishment of a strong customer-brand relationship. While quite a number of studies have investigated the effect of customer investment (e.g. Breivik & Thorbjornsen, 2008; Li & Petrick, 2008; Sung & Campbell, 2009; Sung & Choi, 2010), studies investigating the effect of brand investment in a CBR have been relatively scanty (e.g. Aurier & de Lanauze, 2012) and studies that simultaneously examine the impact of customer and brand investments in a single framework are rare to find in the literature. Even with a newly proposed model, i.e. Resource Investment model (RIM) by Morais et al. (2004) that specifically investigates the interaction of both customer and partner investments in driving customer loyalty, still too few studies in the customer-brand domain that have adopted RIM and examined the relationships among customer investment, partner investment and relational outcome.

Further, most of the CBR studies employed commitment as the relational outcome, particularly to indicate the relationship strength (e.g. Belaid & Behi, 2011; Cater & Cater, 2010; Desai & Raju, 2007; Louis & Lombart, 2010). In examining the effect of relationship investment, customers investment is often associated with the commitment as the outcome construct to reflect the relationship strength (Eisingerich & Rubera, 2010; Sung & Campbell, 2009; Sung & Choi, 2010), while brand investments with relationship quality (Kristof De Wulf, Odekerken-Schröder, & Iacobucci, 2001; Liang, Chen, & Wang, 2008; Yoon, Choi, & Sohn, 2008). Although it has been currently raised on the significance of customer engagement as better indicator of relationship strength (Bowden, 2009; Brodie, Hollebeek, Juric, & Ilic, 2011; Brodie, Ilic, Juric, & Hollebeek, 2011; Hollebeek, 2009; Sashi, 2012; van Doorn et al., 2010; Verhoef, Reinartz, & Krafft, 2010), empirical research on the antecedent of customer engagement has also been very limited. Accordingly, far too little research that delve into examining the role of relationship investment on the customer engagement, suggesting the effect of relationship investment on customer engagement is not well understood.

Given the growing importance of CBR domain and the heighten need to thoroughly investigate the effect of relationship investment and clarify on right lever that will effectively engage the customers with the brand, this paper aims to determine the effect of customer and brand investments on customer engagement. Accordingly, using extended Resource Investment model (RIM), this study broadens the insight into the conceptualization and operationalization of relationship investment and customer engagement. Besides, the finding establishes the significance of further exploring and understanding of the impact of customer-brand investments on customer engagement, and provides companies with new insights on how they can utilize the customer perception of the relationship investment to develop a strong CBR and consequently sustain their competitiveness.

Literature Review

Strong evidence on the significant role of relationship investment in the relationship building has driven an increasing interest to employ relationship investment as one of the dominating factors in the relationship marketing research framework. Since both partners make investment in a relationship, investigation of the effect of relationship investment in prior studies is made upon two conceptualizations. In some studies, relationship investment refers to the individual evaluation of his/her own relationship investment (termed

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

179

as *own or customer investment*, hereafter) (e.g. Huang, et al., 2007; Liu, Luo, & Liu, 2009; Luo, et al., 2009; Nusair, Parsa, & Cobanoglu, 2011; Rusbult, 1983; Rusbult, Martz, & Agnew, 1998; Sung & Choi, 2010), while in the other, it relates to individual's evaluation of the partner's investment in a relationship (termed as either *partner* or *brand investment*, hereafter) (e.g. Aurier & de Lanauze, 2012; Kristof De Wulf & Odekerken-Schröder, 2001; Ganesan, 1994; Ha & Stoel, 2008; Mitrega & Katrichis, 2010; Palmatier, Scheer, Evans, & Arnold, 2008; Yoon, et al., 2008).

Despite probing on different types of relationship investment, previous studies have successfully revealed the significant effect of own investment as well as partner investment on relational outcomes (Aurier & de Lanauze, 2012; Liang & Wang, 2007; Nusair, et al., 2011; Odekerken-Schroder, De Wulf, & Schumacherc, 2003; Sung & Campbell, 2009; F. Wang & Head, 2007). Nevertheless, little research has endeavoured to test the effect of own and partner investment simultaneously in a single framework. Among the earlier attempts to investigate the effects of both types of investments include Chung, Chatterjee and Sengupta (2012); Buvik and Andersen (2011) and Henry Xie, Suh and Kwon (2010). Even more, too little research that embarks on demonstrating the interaction between the own investment and partner investment. So far, Morais et al. (2004) has advanced to demonstrate that the partner investment significantly induces the own investment to affect loyalty. Despite that, almost no attempt has been made to further confirm the finding and clarify on whether own investment is really mediating the effect of partner investment on relational outcomes. More to the point, extensive studies have been conducted in business-to-business (B2B) (e.g. Buvik & Andersen, 2011; Chang, Wang, Chih, & Tsai, 2011; Chung, et al., 2012; Huang, et al., 2007; Liu, et al., 2009; Luo, et al., 2009). In business-to-customer (B2C) domain (e.g. Morais, et al., 2004; Nusair, et al., 2011; Shi, Shi, Chan, Liu, & Fam, 2011; Tsai & Pai, 2012; W. H. Wang, Liang, & Joonas, 2009), the number of studies are quite a lot. However, the number of studies in the customer-brand relationship (CBR) domain is limited but increasing. While most studies in other marketing domain are based upon several prominent theories, research on relationship investment in the CBR has been greatly relied on the Relationship Investment Model of Rusbult (1983) (e.g. Breivik & Thorbjornsen, 2008; Li & Petrick, 2008; Nysveen, Pedersen, Thorbjornsen, & Berthon, 2005; Sung & Campbell, 2009; Sung & Choi, 2010). Due to such inclination, much research has been directed to examine the effect of customer investment (e.g. Breivik & Thorbjornsen, 2008; Sung & Campbell, 2009; Sung & Choi, 2010) rather than partner (brand) investment. among the first attempt to investigate the role of brand investment in customer-brand relationship context might be Aurier & de Lanauze (2012). Further, commitment has commonly employed as the indicator of the relationship strength (e.g. Breivik & Thorbjornsen, 2008; Sung & Campbell, 2009; Sung & Choi, 2010), although it has been recently accepted that engagement can better depict the relationship strength (Bowden, 2009; McEwen, 2004; Peoplemetrics, 2009; Sashi, 2012; Schraft & Micu, 2010). Therefore, this call upon the urgency to extend the existing literature by providing empirical evidence on the significance role of customer and brand investments in engaging the customer and consequently establishing a strong customer-brand relationship.

Explication of Constructs
Relationship investment
Relationship investment refers to the tangible or intangible resources that are put into a relationship by the parties involved in a relationship as a means to keep the relationship stronger and lasting (Kristof De Wulf, et al., 2001; Le & Agnew, 2003; Rusbult, 1983). Accordingly, the relationship investment encompasses the investment made by the both partners in a relationship. in the context of this study, which focuses on the relationship between customer and brand, investigations of relationship investment should involve the customer investment as well as brand investment in a relationship. Taken the customer perspective, determinants of relationship investment would include customer investment (i.e. customer perception of his/her investment in a relationship) and perceived partner investment (i.e. customer perception of the investment made by partner in a relationship). Correspondingly, relationship investment is characterized by the level of the investment made by brand as well as customer.

Perceived Brand Investment: In examining the effect of partner investment, many of the previous studies adopt the conceptualization of perceived relationship investment (PRI), as proposed in the Relationship Exchange model by de Wulf et al. (2001). In the model, perceived relationship investment is defined as "*a consumer's perception of the extent to which a retailer devotes resources, efforts, and attention aimed at maintaining or enhancing relationships with regular customers*" (Kristof De Wulf, et al.,

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

180

2001, p. 35). That is, individual's perception of the extent to which his/her partner in a relationship has actively made efforts that are intended to retain the customers. Accordingly, in this study, it is specifically termed as perceived brand investment, and defined the customer's overall perception of the extent to which a brand actively devotes resources and makes efforts that are aimed to retain the existing customer in a relationship with brand (Aurier & de Lanauze, 2012; Kristof De Wulf, et al., 2001; F. Wang & Head, 2007).

Customer Investment: As for customer investment, much research adopted the conceptualization of investment size, outlined in the Relationship Investment model of Rusbult (1983). In the business-to-business (B2B) context, investment size is defined as "*the degree of the invested resources for maintaining the long term relationship*" (Huang, et al., 2007, p. 754), while in the business-to-customer (B2C), it is viewed as "*how much that customers have already invested in a relationship*" (Nusair, et al., 2011, p. 835). Further, in the context of CBR, investment size is defined as "*the consumers overall perception of the degree of resources they have put into the relationship with their brands*" (Sung & Choi, 2010, p. 1056). Similarly, using customer investment term, it is referred as customer's overall perception of the degree of his/her own invested resources for maintaining a relationship with brand (Huang, et al., 2007; Rusbult, 1983; Sung & Choi, 2010).

Customer engagement

Customer engagement is a new term in marketing literature, which has received considerable attention from researchers to better reflect the strength of a relationship established between parties in a relationship. scholars argued that customer engagement has a greater explanatory power to indicate the relationship strength as it not only encompasses the emotional, cognitive and behavioural components but also exist as a result of a two-way reciprocal exchange between partners (Mollen & Wilson, 2010; Nammir, Marane, & Ali, 2012). Accordingly, such arguments emphasize that customer engagement is a broader construct that extends the definitional scope of involvement, attachment and commitment (Belaid & Behi, 2011; Dagger & David, 2012; Moorman, Zaltman, & Deshpande, 1992; Rusbult, 1983; Sung & Campbell, 2009; Thomson, MacInnis, & Park, 2005). Further, it has been theoretically evidenced that customer engagement as an outcome of satisfaction, trust, commitment and involvement (Bowden, 2009; Haven & Vittal, 2008; Hollebeek, 2009; Sashi, 2012; Singh, 2011). Thus, the theoretical evidence, coupled with empirical evidence that relationship investment has a significant effect on satisfaction, trust and commitment, it would be reasonable to expect the relationship between relationship investment and customer engagement. Thus, the arguments provide the initial basis for this study to employ customer engagement as outcome construct, which substitute the role of commitment, relationship quality and loyalty to predict the psychological bond that customer develop towards brand.

Up to now, there is lack of agreements on what defined customer engagement. Taken the psychological perspective, customer engagement is viewed as a psychological state that will drive the customer to exhibit supporting behaviours (Brodie, Ilic, et al., 2011; Hollebeek, 2009). Accordingly, in this study, customer engagement is defined as the intensity of the customer's psychological state characterized by the emotional connection, sustained attention, brand relevancy and commitment to an active relationship with brand (Abdul-Ghani, Hyde, & Marshall, 2011; Higgins & Scholer, 2009).

Relationship among Constructs

Social exchange theory emphasizes that individuals will remain in a relationship as long as they can gain benefits from such relationship (Auh, 2005; Choi, Moon, Kim, & Lee, 2008). The reciprocity principle of the social exchange theory (SET) clearly explained that when individual perceive that they have received benefits from their partner in a relationship, they would feel indebted and are obligated to reciprocate in kind (Blau, 1964; Gouldner, 1960). That is, on receiving benefits from partner, individuals tend to reciprocate equitably and ultimately foster relationship continuity (Eisingerich & Rubera, 2010). Accordingly, customer perception of brand contribution will influence the customer perception of their contribution in the relationship, which ultimately influences his/her decision to engage with brand. Following this, Morais et al. (2004), in proposing the Resource Investment model (RIM), provide that customers' perception of provider investment significantly and positively influence the customer perception of their own investment, which in turn promote customer loyalty. Thus, the higher the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

181

customers perceive of the provider investment in a relationship, the more likely they are to invest in the relationship, which in turn heighten the tendency for customers to become loyal to the provider.

Applying the Relationship Investment model by Rusbult (1983), many of the prior studies that customer investment significantly increases customer commitment (Bugel, Buunk, & Verhoef, 2010; Huang, et al., 2007; Nusair, et al., 2011; Sung & Campbell, 2009; Sung & Choi, 2010) and loyalty (Jiang, Chou, & Tao, 2011; Li & Petrick, 2008; Tsai & Pai, 2012), while decreases opportunistic behaviour and conflict with partner (Liu, et al., 2009; Luo, et al., 2009). Thus, the greater the individual (customer) perceives of his/her investment in a relationship, the stronger the tendency for him/her to commit to any attempts that will help to maintain a relationship. As such, the findings clearly justify that to secure what they have invested in a relationship, customers are willing to demonstrate a positive attitudinal and behavioural responses to the partner (brand) and consequently maintain the relationship (Nusair, et al., 2011; Sung & Choi, 2010). In the course of that, customer investment is supposed to strongly bind the customer to remain in a relationship with brand.

Evidence from the previous literature also shows that perceived partner investment (PPI) as a significant predictor of satisfaction (Liang & Wang, 2007; Odekerken-Schroder, et al., 2003; F. Wang & Head, 2007), trust (Aurier & de Lanauze, 2012; F. Wang & Head, 2007) and commitment (Aurier & de Lanauze, 2012; Odekerken-Schroder, et al., 2003). Hence, the findings justify that when the customers perceive that the partner has made significant attempts to maintain or enhance a relationship with him/her, they are more likely to be satisfied with the relationship, trust the partner and commit in a relationship. Besides, past studies prove on a positive relationship between the partner investment and relationship quality (Kristof De Wulf, Odekerken-Schroder, & Kenhove, 2003; Yoon, et al., 2008), which somewhat implies that the favourable perception of the partner investment will improve the overall assessment of the relationship. By further revealing that partner investment will consequently lead to a substantial increase in loyalty (Kristof De Wulf, et al., 2001; Ha & Stoel, 2008), the partner investment is supposed to produce a more satisfying and lasting relationship that will retain the customer. Moreover, with the empirical link between the partner investment and the customer dependency is supported, it could be believed that the greater partner investment is perceived, the stronger the customer would try to avoid from losing the benefits the partner has given in (Chung, et al., 2012). Thus, it is apparent that the perceived partner investment (PPI) will act as an important signal of the partner's determination to sustain a relationship with customer as well as the ability to better serve the customer in the future, and thereby reinforce the reason for customer's relationship continuation.

Adapted to the context of this study, it could be expected that customer perception of the significance of their investment would strongly retain them in a relationship. Hence, it could be assumed that higher perceived level of customer investment would increase the level of customer engagement. Besides, customer favourable perception of brand investment will lead the customer to reciprocate equitably. That is, they are more likely to view their investment as more significant and far beyond that; customer would exhibit strong intentions to remain engage in a relationship. Accordingly, higher perceived level of brand investment many not only increase the level of customer investment, but also the level of customer engagement. Thus, it could be predicted that

> H1: Higher perceived level of brand investment leads to higher perceived level of customer investment.
> H2: Higher perceived level of brand investment leads to higher level of customer engagement.
> H3: Higher perceived level of customer investment leads to higher level of customer engagement.

In recent years, investment size (i.e. customer investment) has been proven as a significant mediator. In particular, Wieselquist (2009) asserts that individual who trust their partner would be more committed to their dating relationship when they have made significant investment in a relationship. Subsequently, Jiang et al. (2011) demonstrate that customer, who highly valued the discount given by the provider, are encouraged to invest significantly and thereby enhance their commitment to remain involved in the relationship, while Chow and Tan (2013) point out the significant of the investment size as a mediator in the effect of attachment on the commitment. Despite that, limited studies have been conducted to prove on the mediating effect of customer investment in a relationship between perceived brand investment and

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

182

relational outcome. To date, previous studies have provided empirical proof on the significant direct effect of perceived partner (brand) investment (Kristof De Wulf, et al., 2001; Shi, et al., 2011; F. Wang & Head, 2007) as well as customer investment (Huang, et al., 2007; Li & Petrick, 2008; Nusair, et al., 2011; Sung & Campbell, 2009; Sung & Choi, 2010) on relational outcome. Morais et al. (2004) reveal that perceived partner (brand) investment need to affect customer investment to influence customer loyalty. To some extent, it could be believed that that the effect of perceived partner (brand) investment on relational outcome is indirect via customer investment. Accordingly, based upon the above arguments on the interrelationship between PBI, CI and relational outcome, it would be reasonable to assume of the partial mediating roles of the customer investment. Thus, the following hypothesis is proposed:

> H4: Customer investment will partially mediate the relationship between brand investment and customer engagement.

Consequently, the research framework of this study modified the standard Resource Investment Model (RIM) by employing customer engagement as relational outcome and predicting a direct effect of perceived brand investment on customer engagement. The proposed research framework is displayed in **Figure** 1.

Figure 1: Proposed research framework

Method
This study adopted the positivist, deductive and quantitative approach. A structured questionnaire used consists of three major parts: Part A relates to customer perception of the brand, namely perceived brand investment (13 items), customer investment (9 items) and customer engagement (16 items). All the measurement items were adapted from previous studies. The responses were measured using a 7-point Likert scales from 1 (strongly disagree) to 7 (strongly agree). Part B contains demographic questions such as gender, age, higher education level and working status, while Part C is an open ended question that offers the opportunity for respondent to state his/her comment or opinion on brand relationship.

Description of Samples
There are two groups of samples used in this study. The first group consists of 150 responses, which were collected from a convenience sample of 150 mobile phone users, and used for exploratory factor analysis (EFA). Majority of the respondents are male (61.3%). Their mean age is 30.38 years old, which 54 percent are in the age range of 20 to 29 years old. About 67.3 percent of them have undergraduate education; 47.3 percent are students, followed by those who hold a professional position (34.7%). The mean income is RM1916.83, which majority reported no income (69%). Most of them use Samsung brand (34%), followed by Nokia (26.7%) and Sony Ericsson (16.7%), with mean duration of usage of 3.32 year. Screening of the data shows no missing values. Hence, all the responses are used for analysis.

To conduct structural equation modelling (SEM), a new sample comprises 310 Malaysian mobile phone customers, who had used the mobile phone brand for at least six months and age at least 15 years old, were gathered using drop-off method. Due to responses has either more than 10 percent of unanswered items (Hair, Black, Babin, & Anderson, 2010) or the same answer to all questions, six responses were excluded. Thus, 304 valid responses were used for analysis, representing a response rate of 98 percent. With deletion of 37 outliers, only 267 responses were used for further analysis. An overview of the respondents' profile reveals that the female sample (50.9%) is slightly more than the male respondents (49.1%). The mean age of the respondents is 30.56 years old. Respondents are mostly tertiary educated (66%). In terms of occupation, 46.8 percent of the respondents are students, followed by those that hold a professional position with 33.7 percent. On average, the respondents earn about RM1696.86 per month. With respect to the mobile phone brand, most of the respondents indicate that they use Samsung brand (35.6%), followed by Nokia (29.2%) and Sony Ericsson (17.2%). The average duration of respondents using the brand is 3.2 years, in which 62.2 percent of the respondents have been using the brand for more than 1.5 years.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

183

Results
Refinement of Constructs: Exploratory Factor Analysis (EFA)
Exploratory factor analysis (EFA) was performed to pretest the questionnaire and purify the scales. Prior to performing exploratory factor analysis (EFA), preliminary assumption testing for sample size, normality and outliers were conducted. A sample size of 150 respondents is well within the required sample size. Examination of the skewness and kurtosis statistics shows all values are within the range of ±2 (Garson, 2012b), which indicates that all items are reasonably normally distributed. The standard scores for every item show no extreme cases, in which all the values are in the range of ±4, indicating no outliers in the data. As there is no significant violation found, the data is suitable for further analysis.

The exploratory factor analysis (EFA), using principal component analysis (PCA) extraction technique with Varimax rotation, was performed for each construct in isolation to confirm the measurement items for each constructs, and simultaneously as to confirm on the construct validity. The EFA results revealed four items for the customer investment construct had to be deleted (Table 1) due to a low loading (below 0.45) (Hair, et al., 2010). Furthermore, the Cronbach's alpha values for all three constructs range from 0.737 to 0.895, which satisfy the recommended value for reliability coefficient of 0.7 (Hair, et al., 2010) for all scales. Upon confirming the validity and reliability of items, 38 out of 42 items were retained for further analysis.

Table 1. Summary of EFA and Reliability Analysis Results

Construct	Exploratory Factor Analysis (EFA)		Reliability Analysis		Number of items	
	Finding	Decision	Finding	Decision	Before Analysis	After Analysis
Perceived Brand Investment	KMO = 0.908, Bartlett test significant at =0.05, total variance explained (TVE) = 62%, communalities > 0.3, loadings > 0.45	No item deleted	Cronbach's = 0.857, item to total correlation > 0.5	No item deleted	13 items	13 items
Customer Investment	KMO = 0.8, Bartlett test significant at =0.05, TVE = 67%, communalities > 0.3, loadings > 0.45	Item a18, a19, a20 & a21 deleted	Cronbach's = 0.737, item to total correlation > 0.5	No item deleted	13 items	9 items
Customer Engagement	KMO = 0.89, Bartlett test significant at =0.05,TVE = 60%, communalities > 0.3, loadings > 0.45	No item deleted	Cronbach's = 0.895, item to total correlation > 0.5	No item deleted	16 items	16 items
Total Items					**42 items**	**38 items**

Structural Equation Modelling
Preliminary Analysis
Prior to performing confirmatory factor analysis (CFA), the data were screened for normality, outliers, multicollinearity, linearity and homocedasticity to ensure no violation of assumptions. An inspection of the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

184

skewness and kurtosis values reveals that all measures for the skewness and kurtosis are within the range of ± 2 (Garson, 2012a), indicating that the data is normally distributed. Further, the multivariate kurtosis (Mardia's coefficient) show a value of 377.4, which is too large as compared to the acceptable value of below 1.96 (Garson, 2012a), implying that the sample has a severe multivariate non-normality distribution. However, using a $p < 0.005$ criterion for Mahalanobis distance, 37 extreme cases which are considered as significant outliers (Coakes & Steed, 2003; Kline, 2011; Tabachnick & Fidell, 2007) were removed from the sample. With removal of true outliers (37 observations), the multivariate kurtosis lies in the acceptable range of nonnormality (Gao, Mokhtarian, & Johnston, 2008). Further, the multicollinearity problem was checked by inspecting the inter-construct correlations and factor loadings. As shown in Table 2, correlations among constructs and factor loadings are all below 0.9. Therefore, the multicollinearity problem does not appear to influence the results (Garson, 2012a; Hair, et al., 2010). As no significant violation is found, the data is suitable for further analysis.

Table 2. Standardized Factor Loading and Correlation Among Constructs

	Inter-construct Correlations		
	PBI	CI	CE
Perceived Brand Investment (PBI)			
(0.811, 0.803, 0.849, 0.786, 0.859, 0.673, 0.761, 0.839, 0.860, 0.844, 0.782, 0.735, 0.783)[a]	1.000		
Customer Investment (CI)			
(0.668, 0.794, 0.740, 0.631, 0.676, 0.758, 0.800, 0.809, 0.712)	0.727	1.000	
Customer Engagement (CE)			
(0.816, 0.752, 0.869, 0.876, 0.871, 0.893, 0.894, 0.891, 0.890, 0.892, 0.883, 0.809, 0.890, 0.886, 0.819, 0.815)	0.740	0.732	1.000

Note:
[a] standardized factor loadings, all significant at $p < 0.001$

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

185

The linearity assumption was checked using curve estimation for all relationships between independent and dependent variables. Given that the linear relationship shows the highest F value for all relationships, and the relationship is significant at $p < 0.05$, the results indicate that all relationships are sufficiently linear (Gaskin, 2013). Furthermore, the assumption of homoscedasticity was inspected using of scatterplot. Since the results show that most of the plots cluster around the x axis with equal dispersion, indicating that homoscedasticity exists for all variables (Garson, 2012b; Gaskin, 2013). Thus, the assumption of linearity and homoscedasticity are supported.

Confirmatory Factor Analysis (CFA)
The confirmatory factor analysis (CFA) is performed using AMOS by employing the maximum likelihood estimation method. Specifically, all measures are assessed for goodness-of-fit, unidimensionality, reliability and, convergent and discriminant validity. Given a large sample size, a good fit model is reflected by a significant chi-square ($\square^2$), the normed Chi-square value in the range of 1 to 5, the comparative fit index (CFI) value should exceed 0.9, while root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) values should not exceed 0.08 (Garson, 2012a; Hair, et al., 2010; Schumacker & Lomax, 2004). Based on the recommended level for model fit, the overall fit indices indicate that the model fits the data well with $\square^2$=2177.5, df=662, p<0.000, normed $\square^2$= 3.289, CFI=0.913 and RMSEA=0.073. Further, all items significantly ($p < 0.001$) load above the threshold of 0.5 on their assigned constructs (Table 3), providing evidence for the unidimensionality of each construct.

As Table 3 shows, the construct reliabilities (CR) range from 0.913 to 0.978, while the average variance extracted (AVE) range from 0.539 to 0.740, which exceed the threshold of 0.7 and 0.5, respectively (Hair, et al., 2010). Thus, the results support the reliability of the constructs. To assess the convergent validity, the AVE and standardized factor loadings are examined. The results show that the AVE value for each construct is greater than 0.5, and the standardized factor loadings are higher than 0.5 (Hair, et al., 2010). Therefore, the convergent validity is evidenced. Next, the discriminant validity of the constructs is checked by comparing the values of the AVE with the corresponding squared inter-construct correlations (SIC). The results show that the value of AVE for each constructs is greater than the corresponding squared inter-construct correlations (SIC), indicating that the items have more in common with their respective construct than other constructs. Therefore, the discriminant validity is also supported.

Table 3. Confirmatory Factor Analysis (CFA) Results (n=267)

	Inter-construct Correlations			AVE	CR
	PBI	**C1**	**CE**		
Perceived Brand Investment (PBI) (0.811, 0.803, 0.849, 0.786, 0.859, 0.673, 0.761, 0.839, 0.860, 0.844, 0.782, 0.735, 0.783)[a]		*0.529[b]*	*0.548*	**0.641**	**0.959**
Customer Investment (CI) (0.668, 0.794, 0.740, 0.631, 0.676, 0.758, 0.800, 0.809, 0.712)	0.727		*0.536*	**0.539**	**0.913**
Customer Engagement (CE) (0.816, 0.752, 0.869, 0.876, 0.871, 0.893, 0.894, 0.891, 0.890, 0.892, 0.883, 0.809, 0.890, 0.886, 0.819, 0.815)	0.740	0.732		**0.740**	**0.978**

Note:
AVE = average variance extracted = $\square$ squared loadings/n;
CR =

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

186

construct reliability = ($\square$ loading)^2/[($\square$ loading)^2 + $\square$(1-factor loading^2]
^{a}

standardized factor loadings, all significant at p < 0.001; ^{b} squared inter-construct correlations(SIC) (elements in italic)

Upon confirming the model fit as well as the constructs validity and reliability, the measurement model is appropriate for use to test the proposed hypotheses.

Test of Hypotheses
The results of the structural model with a maximum likelihood estimation method are presented in Table 4. The overall fit was adequate ($\square^2$=2177.5, df=662, p<0.000, normed $\square^2$= 3.289, CFI=0.913 and RMSEA=0.073). Perceived brand investment (PBI) explained about 53.8 percent of the variance in customer investment (CI), while combination of PBI and CI explained approximately 78.8 percent of the total variance in customer engagement (CE). The relationship between PBI and CI was positive and significant ($\square$=0.734, p<0.001). thus, H1 was supported. The results indicate that higher perceived level of brand investment leads to higher perceived level of customer investment. The paths from PBI and CI to CE were positive and significant. Thus, H2 and H3 were supported. The findings implied that both higher perceived level of brand and customer investments lead to higher level of customer engagement. The mediating effect of CI in forming the CE was tested by examining the direct and indirect effects of PBI on CE. The indirect impact of PBI on CE through CI was positive and significant ($\square$=0.529, p<0.05). The results indicated that CI acted as a partial mediator in the relationship between PBI and CE. Thus, H4 was supported.

Table 4. Summary of Hypotheses Testing

Hypothesized path	Expected direction	Standardized estimate	t-value	Result
R^2 (CI) = 0.538				
H1: PBI → CI	+	0.734***	3.253	Supported
R^2 (CE) = 0.788				
H2: PBI → CE	+	0.211***	0.487	Supported
H3: CI → CE	+	0.721***	6.829	Supported
Indirect effect				
H4: PBI → CI (partial) → CE^a	+	0.529**		Supported

*** p<0.001, **p<0.05, ^{a}bias corrected 95% confidence interval [.424,0.657]

Discussion
The results of this study reveal that perceived brand investment (PBI) has a significant positive relationship with customer investment (CI). Accordingly, the results imply that higher perceived level of brand investment leads to higher perceived level of customer investment. To some extent, the results

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

187

seem to conform with the principle of interdependence interactions, which highlights that the actions of one partner is contingent on the rewarding actions of the other partner in a relationship (Blau, 1964; Cropanzano & Mitchell, 2005). As such, the results suggest that customer investment in a relationship with brand is contingent on how rewarding the brand investment is as perceived by the customer. That is, customers are encouraged to make significant investments in a relationship if only they appreciate the brand efforts to develop a relationship with them.

Besides, the results somewhat support the reciprocity principle of Social Exchange theory (SET) as well as the relationship between customer-provider investments outlined in Resource Investment model of Morais et al. (2004). Accordingly, the results indicate that customers are more likely to reciprocate whenever they perceive that their partner in a relationship (i.e. brand) has made significant investment into a relationship (Blau, 1964; Eisingerich & Rubera, 2010; Gouldner, 1960; Morais, et al., 2004). Hence, when customers perceive that they have received substantial benefits from brand investment, they would feel compelled to reciprocate such investment by devoting greater amount of resources in a relationship with brand. In this regard, the significant positive effect of brand investment on customer investment clearly show that whenever customers have a positive impression of the magnitude and importance of brand investment, they are compelled to repay by making significant investments in a relationship. Thus, customer strong appreciation of brand efforts that aimed at building strong functional and emotional connections with customers would trigger customer to make substantial investment with respect to money, effort, emotion and time.

In addition, the results provide strong evidence that perceived brand investment (PBI) and customer investment (CI) have a significant positive effect on customer engagement (CE). The results seem to be consistent with previous studies that highlight PBI (Aurier & de Lanauze, 2012; Bolton, Smith, & Wagner, 2003; Kim, Kim, Jolly, & Fairhurst, 2008; Shi, et al., 2011; Yen & Chu, 2009; Yoon, et al., 2008) and CI (Bugel, Verhoef, & Buunk, 2011; Huang, et al., 2007; Jiang, et al., 2011; Nusair, et al., 2011; Sung & Campbell, 2009; Tsai & Pai, 2012) as among the dominating factors to affect the relational outcomes. Accordingly, the findings clearly demonstrated that perceived brand investment (PBI) would act as an important signal of the brand's determination to sustain a relationship with customers as well as the ability to better serve the customer in the future. It is therefore, when customer perceive the brand investment as significant, they are more likely to reciprocate the benefit they received from brand's investment by exhibiting a strong engagement toward the brand. Thus, the results imply that the customers are persuaded to engage when they perceive that brand has invested greatly in building emotional and functional connection with customer. Besides, the positive influence of CI on CE indicates that higher perceived level of customer investment leads to a higher level of customer engagement. This implies that when customers perceive that they have made a significant investment in a relationship with a brand, they are more likely to engage in a relationship to secure such investment (Bugel, et al., 2010; Sung & Campbell, 2009; Sung & Choi, 2010; Tsai & Pai, 2012). In this regards, the findings clearly showed that customers appreciate every single investment they made, to the extent that they are willing to engage in a relationship with the brand.

Further, the results also show that customer investment (CI) partially mediates the effect of perceived brand investment (PBI) on customer engagement (CE). Accordingly, the findings are in congruent with previous studies that show the significant mediating role of CI (Chow & Tan, 2013; Jiang, et al., 2011; Wieselquist, 2009). Further, the findings show that perceived level of brand investment may not only have a direct positive effect on CE, but also indirect effect through customer investment. To a certain extent, the results support the previous studies that demonstrate a direct relationship between perceived partner (brand) investment and relational outcome (Kristof De Wulf, et al., 2001; Shi, et al., 2011; F. Wang & Head, 2007) and indirect relationship via customer investment (Morais, et al., 2004).

Accordingly, the results indicate that higher perceived level of brand investment (PBI) would improve the customer perception of their investments to the extent that they are more willing to engage in a relationship with a brand. That is, when the customer perceive that a brand has invested significantly in building strong connection with customer, they would feel obligated to reciprocate the brand efforts by making equitable investment, and consequently are more likely to engage in a relationship with the brand as to secure their investment. Accordingly, it is reasonable to believe that customers, who perceive higher

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

188

level of BSI, are more likely to engage, particularly when they have made significant intrinsic and extrinsic investments.

Implications

Having demonstrated the significance of the proposed paths, this study provides empirical evidence on the significance role of relationship investment in inducing customer engagement. Accordingly, this study contributes to the methodological aspect of the literature by providing evidence on the applicability of RIM in the customer-brand relationship context and highlighting RIM as an alternative model for other researchers to adopt in explaining customer-brand relationship.

This study also contributes to the existing literature by demonstrating that even though customer investment plays a major role to drive customer engagement, perceived brand investment is also of comparable importance to induce customer engagement, and combination of both customer and brand investments could further increase the customers willingness to remain engaged. Since perceived brand investment (PBI) is demonstrated to be significant construct, the investigation of the predictive role of relationship investment in customer-brand relationship context might be affected by its omission.

Since limited empirical evidence has been provided on the antecedents of customer engagement, this inclusion of customer engagement as the ultimate relational outcome in the proposed framework make a significant contribution to existing literature of customer engagement and customer-brand relationship. With empirical evidence on the predictive power of relationship investment in affecting customer engagement, this study points out another antecedent at work to affect customer engagement.

From a practical perspective, this study indicates that perceived brand investment and customer investment are likely to establish stronger customer engagement. Hence, having customer insights on customer-brand relationship investments should provide the brand managers, at least in mobile phone companies, with valuable hints concerning the type of relationship investment that may contribute in promoting customer engagement. Armed with that insight, brand managers can learn why customers want to engage with brand, assess the current state of customer engagement and identify the influential factors that will help the companies to plan the best course of action to engage the customer. In particular, to enhance customer engagement, the brand manager might want to direct their investment not only on aspects that are rated highly by customers, but also on efforts that should also have the capabilities to trigger customer significant investment in a relationship.

Limitations and Directions for Future Research

While this study provides some insights on customer-brand relationship, as in any other research, this study is limited by several factors. In order to refine the proposed framework, it is worth to address such limitations in further theoretical and empirical research. Firstly, the validity and generalizability of the findings might be limited as this study used a small sample (n=150), which selected using non-probability from a single nation, industry and brand type. Accordingly, the results of this study cannot necessarily be generalized beyond the population studied. As to confirm the validity of the model and expand the generalizability of the study's results to other settings, replication of this study is strictly required. Perhaps, the future research may want to employ probability-sampling method and examine the proposed framework across different context, particularly different nation, industries, samples and brand types. Secondly, the study only investigated the effect of customer-brand relationship investments on customer engagement, not the effect of dimensions of customer and brand investments. Since it has been empirically proven that the dimensions of relationship investment can have an independent impact on relational outcome, the dimensions of relationship investment could have important effect on customer engagement. Therefore, to improve the prediction of customer engagement and consequently enhance the explanatory power of the study framework, the future work will explicitly examine the effect of the dimensions of customer-brand relationship investment on customer engagement.

Conclusion

This paper examines the effect of customer-brand relationship investments on customer engagement. The results suggest that customer perception of the brand investment as well as his/her investment in a relationship significantly influence the customer willingness to engage. Despite that, the perceived brand

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

189

investment may as well influence the customer perception of his/her own investment, and consequently affect the customer engagement. Accordingly, this paper provides useful insight for companies to develop a strong customer-brand relationship and consequently sustain their competitiveness. The findings suggest that companies should invest in resources that appear as valuable to customers, as only then the customers will be willing to reciprocate in a kind and further improve their engagement level.

References

Abdul-Ghani, E., Hyde, K. F., & Marshall, R. (2011). Emic and etic interpretations of engagement with a consumer-to-consumer online auction site. *Journal of Business Research, 64*(10), 1060-1066. doi: http://dx.doi.org/10.1016/j.jbusres.2010.10.009

Alqahtani, A. A. (2011). Toward a clarification of the concept of relationship marketing. *International Journal of Management, 28*(2), 585 - 590.

Auh, S. (2005). The effects of soft and hard service attributes on loyalty. *Journal of Services Marketing, 19*(2), 81-92. doi: 10.1108/08876040510591394

Aurier, P., & de Lanauze, G. S. (2012). Impacts of perceived brand relationship orientation on attitudinal loyalty: An application to strong brands in the packaged goods sector. *European Journal of Marketing, 46*(11), 1602 - 1627.

Belaid, S., & Behi, A. T. (2011). The role of attachment in building consumer-brand relationships: an empirical investigation in utilitarian consumption context. *Journal of Product & Brand Management, 20*(1), 37-47.

Bendapudi, N., & Berry, L. L. (1997). Customers' Motivations for Maintaining Relationships with Service Providers. *Journal of Retailing, 73*(1), 15-37. doi: http://dx.doi.org/10.1016/S0022-4359(97)90013-0

Blau, P. M. (1964). *Exchange and Power in Social Life.* New York: John Wiley & Sons.

Bolton, R. N., Smith, A. K., & Wagner, J. (2003). Striking the Right Balance: Designing Service to Enhance Business-to-Business Relationships. *Journal of Service Research, 5*(4), 271-291. doi: 10.1177/1094670503005004001

Bowden, J. L. (2009). The Process of Customer Engagement: A Conceptual Framework. *Journal of Marketing Theory and Practice, 17*(1), 63-74. doi: 10.2753/MTP1069-6679170105

Breivik, E., & Thorbjornsen, H. (2008). Consumer brand relationships: an investigation of two alternative models. *Journal of the Academy of Marketing Science, 36*(4), 443-472.

Brodie, R. J., Hollebeek, L. D., Juric, B., & Ilic, A. (2011). Customer Engagement: Conceptual Domain, Fundamental Propositions, and Implications for Research. *Journal of Service Research, 14*(3), 252-271. doi: 10.1177/1094670511411703

Brodie, R. J., Ilic, A., Juric, B., & Hollebeek, L. (2011). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*(In Press), 10. doi: 10.1016/j.jbusres.2011.07.029

Bugel, M. S., Buunk, A. P., & Verhoef, P. C. (2010). A comparison of customer commitment in five sectors using the psychological investment model. *Journal of Relationship Marketing, 9*(1), 2-29. doi: 10.1080/15332660903551883

Buvik, A., & Andersen, O. (2011). The Effects of Buyer Specific Investments and Buyer Specific Monitoring Investments on Hierarchical Governance in Business-to-Business Relationships. *Journal of Marketing Development and Competitiveness, 5*(2), 87 - 97.

Carter, T. (2008). Customer Engagement and Behavioral Considerations. *Journal of Strategic Marketing, 16*(1), 21-26. doi: 10.1080/09652540701794387

Cater, T., & Cater, B. (2010). Product and relationship quality influence on customer commitment and loyalty in B2B manufacturing relationships. *Industrial Marketing Management, 39*(8), 1321-1333.

Chang, S.-H., Wang, K.-Y., Chih, W.-H., & Tsai, W.-H. (2011). Building customer commitment in business-to-business markets. [doi: 10.1016/j.indmarman.2011.11.026]. *Industrial Marketing Management*(0). doi: 10.1016/j.indmarman.2011.11.026

Choi, J., Moon, Y., Kim, E., & Lee, J.-H. (2008). The Relationship between Perceived Investments in CSR Activities and the Evaluation of the Company. *International Journal of Automotive Industry and Management, 2*(December 2008), 33-47.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

190

Chow, C. M., & Tan, C. C. (2013). Attachment and Commitment in Dyadic Friendships: Mediating Roles of Satisfaction, Quality of Alternatives, and Investment Size. *Journal of Relationships Research, 4*(e4), 1-11.

Chung, C., Chatterjee, S. C., & Sengupta, S. (2012). Manufacturers' reliance on channel intermediaries: Value drivers in the presence of a direct web channel. *Industrial Marketing Management, 41*(1), 40–53. doi: 10.1016/j.indmarman.2011.11.010

Circles. (2010). Turning Emotion into Engagement: Utilizing the power of emotion to connect customers to your brand. Retrieved from http://www.circles.com/docs/CE%20Whitepaper_Engagement_071410.pdf

Coakes, S. J., & Steed, L. G. (2003). *SPSS analysis without anguish: version 11.0 for windows.* Queensland: John Wiley & Sons Australia Ltd.

Cropanzano, R., & Mitchell, M. S. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of Management, 31*(6), 874-900. doi: 10.1177/0149206305279602

Dagger, T. S., & David, M. E. (2012). Uncovering the real effect of switching costs on the satisfaction-loyalty association: The critical role of involvement and relationship benefits. *European Journal of Marketing, 46*(3), 447-468. doi: 10.1108/03090561211202558

De Wulf, K., & Odekerken-Schröder, G. (2001). A Critical Review of Theories Underlying Relationship Marketing in the Context of Explaining Consumer Relationships. [Article]. *Journal for the Theory of Social Behaviour, 31*(1), 73.

De Wulf, K., Odekerken-Schröder, G., & Iacobucci, D. (2001). Investments in Consumer Relationships: A Cross-Country and Cross-Industry Exploration. *Journal of Marketing, 65*(4), 33-50.

De Wulf, K., Odekerken-Schroder, G., & Kenhove, P. V. (2003). Investments in consumer relationships: A critical reassessment and model extension. *The International Review of Retail, Distribution and Consumer Research, 13*(3), 245-261.

Desai, K. K., & Raju, S. (2007). Adverse influence of brand commitment on consideration of and preference for competing brands. *Psychology & Marketing, 24*(7), 595-614.

Dorsch, M. J., Carison, L., Raymond, M. A., & Ranson, R. (2001). Customer Equity Management and Strategic Choices for Sales Managers. [Article]. *Journal of Personal Selling & Sales Management, 21*(2), 157 - 166.

Eisingerich, A. B., & Rubera, G. (2010). Drivers of brand commitment: A cross-national investigation. *Journal of International Marketing, 18*(2), 64-79.

Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing, 58*(2), 1-19.

Gao, S., Mokhtarian, P. L., & Johnston, R. A. (2008). Nonnormality of data in structural equation models. *Transportation Research Record: Journal of the Transportation Research Board, 2082*(1), 116-124.

Garson, G. D. (2012a). *Structural Equation Modeling.* Asheboro, NC USA: Statistical Associates Publishing.

Garson, G. D. (2012b). *Testing Statistical Assumptions.* Asheboro, NC USA: Statistical Associates Publishing.

Gaskin, J. (2013). Data screening. *Gaskination's StatWiki.* Retrieved from http://statwiki.kolobkreations.com/index.php?title=Data_screening&oldid=4980

Goodfriend, W., & Agnew, C. R. (2008). Sunken Costs and Desired Plans: Examining Different Types of Investments in Close Relationships. *Personality and Social Psychology Bulletin, 34*(12), 1639-1652. doi: 10.1177/0146167208323743

Gouldner, A. W. (1960). The Norm of Reciprocity: A Preliminary Statement. *American Sociological Review, 25*(2), 161-178. doi: 10.2307/2092623

Ha, S., & Stoel, L. (2008). Promoting customer-retailer relationship building: influence of customer trustworthiness of customer loyalty programme marketing. *Journal of Customer Behaviour, 7*(3), 215-229. doi: 10.1362/147539208X369652

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A global perspective* (7th edition ed.). Upper Saddle River, New Jersey: Pearson Education Inc.

Haven, B., & Vittal, S. (2008). Measuring Engagement. *Forrester Research Reports.* Retrieved from http://www.adobe.com/engagement/pdfs/measuring_engagement.pdf

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

191

Henry Xie, Y., Suh, T., & Kwon, I.-W. G. (2010). Do the magnitude and asymmetry of specific asset investments matter in the supplier-buyer relationship? [Article]. *Journal of Marketing Management, 26*(9/10), 858-877. doi: 10.1080/02672570903441488

Hess, J., & Story, J. (2005). Trust-based commitment: multidimensional consumer-brand relationships. *Journal of Consumer Marketing, 22*(6), 313-322.

Higgins, E. T., & Scholer, A. A. (2009). Engaging the consumer: The science and art of the value creation process. *Journal of Consumer Psychology, 19*(2), 100-114. doi: http://dx.doi.org/10.1016/j.jcps.2009.02.002

Hollebeek, L. D. (2009). *Demystifying Customer Engagement: Toward the Development of a Conceptual Model* Paper presented at the Australian & New Zealand Marketing Academy (ANZMAC), Crown Promenade, Melbourne, Australia. http://www.duplication.net.au/ANZMAC09/papers/ANZMAC2009-010.pdf

Huang, L. T., Cheng, T. C., & Farn, C. K. (2007). The Mediating Effect of Commitment on Customer Loyalty towards E-Brokerages: An Enhanced Investment Model. *Total Quality Management, 18*(7), 751-770.

Jiang, J., Chou, T. J., & Tao, X. (2011). The Impact of Price Discount, Product Complementarity and Relational Investment on Customer Loyalty: Empirical Evidence from China's Telecommunications Industry. *Asian Journal of Marketing, 5*(2011), 1-16. doi: 10.3923/ajm.2011.1.16

Kim, H.-Y., Kim, Y.-K., Jolly, L., & Fairhurst, A. (2008). Satisfied Customers' Love toward Retailers: A Cross-Product Exploration. *Advances in Consumer Research, 35*(2008), 507-515.

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd edition ed.). New York: The Guilford Press.

Kotler, P., & Armstrong, G. (2010). *Principles of Marketing* (13th edition ed.). Singapore: Pearson Education International.

Le, B., & Agnew, C. R. (2003). Commitment and its theorized determinants: A meta-analysis of the Investment Model. *Personal Relationships, 10*(2003), 37-57.

Li, X. R., & Petrick, J. F. (2008). Examining the Antecedents of Brand Loyalty From an Investment Model Perspective. *Journal of Travel Research, 47*(1), 25-34. doi: 10.1177/0047287507312409

Liang, C. J., Chen, H. J., & Wang, W. H. (2008). Does online relationship marketing enhance customer retention and cross-buying? *The Service Industries Journal, 28*(6), 769-787. doi: 10.1080/02642060801988910

Liang, C. J., & Wang, W. H. (2007). The behavioral sequence of information education services industry in Taiwan: relationship bonding tactics, relationship quality and behavioral loyalty. *Measuring Business Excellence, 11*(2), 62 - 74.

Liu, Y., Luo, Y., & Liu, T. (2009). Governing buyer–supplier relationships through transactional and relational mechanisms: Evidence from China. *Journal of Operations Management, 27*(2009), 294-309. doi: 10.1016/j.jom.2008.09.004

Louis, D., & Lombart, C. (2010). Impact of brand personality on three major relational consequences (trust, attachment, and commitment to the brand). *Journal of Product & Brand Management, 19*(2), 114-130. doi: 10.1108/10610421011033467

Luo, Y., Liu, Y., & Xue, J. (2009). Relationship Investment and Channel Performance: An Analysis of Mediating Forces. *Journal of Management Studies, 46*(7), 1113-1137. doi: 10.1111/j.1467-6486.2009.00843.x

McEwen, W. J. (2004). Getting Emotional About Brands. Retrieved from http://www.adobe.com/engagement/pdfs/gmj_getting_emotional.pdf

Mitrega, M., & Katrichis, J. M. (2010). Benefiting from dedication and constraint in buyer–seller relationships. [doi: 10.1016/j.indmarman.2009.05.004]. *Industrial Marketing Management, 39*(4), 616-624.

Mollen, A., & Wilson, H. (2010). Engagement, telepresence and interactivity in online consumer experience: Reconciling scholastic and managerial perspectives. *Journal of Business Research, 63*(9-10), 919-925.

Moon, M. A., & Bonney, L. (2007). An application of the investment model to buyer–seller relationships: a dyadic perspective. *Journal of Marketing Theory and Practice, 15*(4), 335-347. doi: 10.2753/MTP1069-6679150404

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

192

Moorman, C., Zaltman, G., & Deshpande, R. (1992). Relationships Between Providers and Users of Market Research: The Dynamics of Trust Within and Between Organizations. *Journal of Marketing Research, 29*(3), 314-328.

Morais, D. B., Dorsch, M. J., & Backman, S. J. (2004). Can Tourism Providers Buy their Customers' Loyalty? Examining the Influence of Customer-Provider Investments on Loyalty. *Journal of Travel Research, 42*(3), 235-243. doi: 10.1177/0047287503258832

Nammir, D. S. S., Marane, B. M., & Ali, A. M. (2012). Determine the Role of Customer Engagement on Relationship Quality and Relationship Performance *European Journal of Business and Management, 4*(11), 27-36.

Nusair, K. K., Parsa, H. G., & Cobanoglu, C. (2011). Building a model of commitment for Generation Y: An empirical study on e-travel retailers. *Tourism Management, 32*(2011), 833-843. doi: 10.1016/j.tourman.2010.07.008

Nysveen, H., Pedersen, P. E., Thorbjornsen, H., & Berthon, P. (2005). Mobilizing the Brand: The Effects of Mobile Services on Brand Relationships and Main Channel Use. *Journal of Service Research, 7*(3), 257-276. doi: 10.1177/1094670504271151

Odekerken-Schroder, G., De Wulf, K., & Schumacherc, P. (2003). Strengthening outcomes of retailer–consumer relationships: The dual impact of relationship marketing tactics and consumer personality. *Journal of Business Research, 56*(3), 177- 190. doi: http://dx.doi.org/10.1016/S0148-2963(01)00219-3

Palmatier, R. W., Dant, R. P., Grewal, D., & Evans, K. R. (2006). Factors Influencing the Effectiveness of Relationship Marketing: A Meta-Analysis. *Journal of Marketing, 70*(October 2006), 136-153.

Palmatier, R. W., Scheer, L. K., Evans, K. R., & Arnold, T. J. (2008). Achieving relationship marketing effectiveness in business-to-business exchanges. *Journal of the Academy of Marketing Science, 36*(2), 174-190. doi: 10.1007/s11747-007-0078-5

Passikoff, R. K. (2013). Do you want a phone with a camera or a camera with a phone? *Branding Magazine*. Retrieved from http://www.brandingmagazine.com/2013/09/24/camera-phone/

Peoplemetrics. (2009). Most Engaged Customers (MEC) Study (2009). Retrieved from http://www.peoplemetrics.com/resources/2009_MEC_WhitePaper.pdf

Rusbult, C. E. (1983). A Longitudinal Test of the Investment Model: The Development (and Deterioration) of Satisfaction and Commitment in Heterosexual Involvements. *Journal of Personality and Social Psychology, 45*(1), 101-117.

Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The Investment Model Scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5*(4), 357-387. doi: 10.1111/j.1475-6811.1998.tb00177.x

Sashi, C. M. (2012). Customer engagement, buyer-seller relationships, and social media. *Management Decision, 50*(2), 253-272. doi: 10.1108/00251741211203551

Schraft, C., & Micu, A. C. (2010). Building Customer Equity in a Multichannel World: The Strategic Content Engagement Process. *White Paper*. Retrieved from http://www.timeinccontentsolutions.com/downloads/tics_whitepaper_041610.pdf

Schumacker, R. E., & Lomax, R. G. (2004). *A Beginner's Guide to Structural Equation Modeling* (Second edition ed.): Lawrence Erlbaum Associates.

Shi, G., Shi, Y., Chan, A. K. K., Liu, M. T., & Fam, K.-S. (2011). The role of renqing in mediating customer relationship investment and relationship commitment in China. [doi: 10.1016/j.indmarman.2010.12.005]. *Industrial Marketing Management, 40*(4), 496-502.

Singh, S. (2011). Influencing behavioral change by customer engagement amongst youth. *Adolescent Health, Medicine and Therapeutics, 2*(1), 123-132 doi: http://dx.doi.org/10.2147/AHMTS17856

Story, J., & Hess, J. (2010). Ethical brand management: customer relationships and ethical duties. *Journal of Product & Brand Management, 19*(4), 240-249.

Sung, Y., & Campbell, W. K. (2009). Brand commitment in consumer-brand relationships: An investment model approach. *Brand Management, 17*(2), 97-113.

Sung, Y., & Choi, S. M. (2010). I won't leave you although you disappoint me: The interplay between satisfaction, investment and alternatives in determining consumer-brand relationship commitment. *Psychology & Marketing, 27*(11), 1050-1074.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics* (5th edition ed.). Boston, MA: Pearson Education. Inc.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

193

Thomson, M., MacInnis, D. J., & Park, C. W. (2005). The ties that bind: Measuring the strength of consumers' emotional attachment to brands. *Journal of Consumer Psychology, 15*(1), 77-91.

Tripathi, M. N. (2009). Customer Engagement – Key to Successful Brand Building. *Vilakshan, XIMB Journal of Management, 6*(1), 131-140.

Tsai, H.-T., & Pai, P. (2012). Positive and negative aspects of online community cultivation: Implications for online stores' relationship management. *Information & Management, 49*(2), 111-117. doi: 10.1016/j.im.2011.11.002

van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., et al. (2010). Customer Engagement Behavior: Theoretical Foundations and Research Directions. *Journal of Service Research, 13*(3), 253-266. doi: 10.1177/1094670510375599

Verhoef, P. C., Reinartz, W. J., & Krafft, M. (2010). Customer Engagement as a New Perspective in Customer Management. *Journal of Service Research, 13*(3), 247-252. doi: 10.1177/1094670510375461

Wang, F., & Head, M. (2007). How can the Web help build customer relationships? *Information & Management, 44*(2), 115-129. doi: 10.1016/j.im.2006.10.008

Wang, W. H., Liang, C. J., & Joonas, K. (2009). Customer Relationship Investments, Value to the Customer, and Value to the Firm: Integrating Attributes and Benefits. *Southwest Business and Economics Journal, 17*(2009), 23-45.

Wieselquist, J. (2009). Interpersonal forgiveness, trust, and the investment model of commitment. *Journal of Social and Personal Relationships, 26*(4), 531-548. doi: 10.1177/0265407509347931

Yen, T.-F., & Chu, K.-K. (2009). Do More Investments Or Higher Justice Win The Higher Loyalty? *International Journal of Electronic Business Management, 7*(3), 211-223.

Yoon, D., Choi, S. M., & Sohn, D. (2008). Building Customer Relationships in an Electronic Age: The Role of Interactivity of E-Commerce Web Sites. *Psychology & Marketing, 25*(7), 602–618. doi: 10.1002/mar.20227

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

194

The Effect of Islamic Brand Identity on Muslim Consumers Commitment towards Halal-Labelled Brand

Zuraidah Zainol[a], Juliana Osman[3], Norsamsinar Samsudin[c], Thuraiya Zakaria[d]

[a]*Universiti Pendidikan Sultan Idris, MALAYSIA, zuraidah@fpe.upsi.edu.my*
[b]*Universiti Pendidikan Sultan Idris, MALAYSIA, juliana@fpe.upsi.edu.my*
[c]*Universiti Pendidikan Sultan Idris, MALAYSIA, norsamsinar@fpe.upsi.edu.my*
[d]*Universiti Pendidikan Sultan Idris, MALAYSIA, thuraiya@fpe.upsi.edu.my*

Abstract

This study investigates the effect of Islamic brand identity on Muslim consumers commitment towards halal-labelled brand. Data were collected from a convenience sample of 221 Muslim consumers, aged 18 and above, using online questionnaire survey. The multiple regression analysis results reveal that Islamic suggestive brand name, direct brand logo and confrontation brand slogan significantly predict consumers commitment towards halal-labelled brand. There is no significant effect of Islamic non-suggestive brand name and indirect brand logo on brand commitment. The results provide the necessity to employ Islamic brand identity in branding halal product. This study is perhaps one of the first to address the relevancy of Islamic brand identity as the key element to induce Muslims consumers commitment towards halal-labelled brand.

Keywords: Customer-brand relationship, Islamic brand identity, commitment, Muslim consumers, halal-labelled brand

Introduction

Due to the huge population (Free World Academy, 2005; Temporal, 2010), Muslims have emerged as a new big consumer market, bigger than India or China (Young, 2010), that is worth explored (Frost, 2007). As the Muslim consumer market is new, it opens up a huge opportunity in almost every industry (Al-Harran & Low, 2010; Frost, 2007). With Muslims as target market, the demand for halal product is heightened. Due to its great potential, both Muslim market and halal product have received considerable attention from the academicians as well as practitioners. However, most of halal-based studies have been directed to understand the consumer behaviour toward halal products and services, particularly on the purchase intention (Golnaz, Zainalabidin, Mad Nasir, & Eddie Chiew, 2010), patronage of halal restaurants (Md. Tawfik, Ishak, Hasnah, & Md. Aminul, 2008), halal product selection (Lada, Tanakinjal, & Amin, 2009), halal meat consumption (Bonne, Vermeir, Bergeaud-Blackler, & Verbeke, 2007) and halal logo search (Salehudin & Luthfi, 2010).

Recently, a growing number of halal-based studies have started channelling their research interest in branding aspects. In particular, much of the discussion on halal branding has been focused on the applicability and necessity of Islamic brand. On one hand, Alserhan (2010) highlights the need to differentiate the concept of Islamic branding from the conventional branding such as by adopting the spiritual need of the Muslims. However, it has been argued on the necessity to brand product according

---

3

[1] Corresponding author

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

195

to the religious line, as many of the well-known Muslim products such as Persian carpets and Egyptian cotton have survived globally even without being marketed as Muslim products (Frost, 2007; Raja Nazrin Shah, 2010). Besides, it is also feared that such aggressive attempts will result in more negative effects such as the incident of "halal phobia" in France (Raja Nazrin Shah, 2010). Despite all the arguments, due to massive Muslim population worldwide, the insight on Islamic brand cannot be overlooked (Frost, 2007). Thus, with or without being termed as Islamic brand, a continuous effort to understand the underlying aspects of branding the halal products is clearly warranted. Given that, almost all of the existing studies (which studies?) are conceptual and considering that both the halal product and Muslim market are new, it is crucial to undertake a study to provide empirical evidence on the matter.

To survive in a hyper intense marketplace, companies can no longer compete in terms of price, quality and customer satisfaction but rather to build, manage and maintain a long-term profitable relationship with the customers (Alqahtani, 2011; Carter, 2008; Circles, 2010; Hess & Story, 2005; Kotler & Armstrong, 2010; Louis & Lombart, 2010; Schraft & Micu, 2010). To do so, ~~both~~ academicians and practitioners have increasingly embraced the significance of customer-brand relationship (Eisingerich & Rubera, 2010; Fisher-Buttinger & Vallaster, 2008; Fournier, 1998; Story & Hess, 2010; Sung & Choi, 2010), and further highlighted the significance of brand elements as a tool to create a connection with the customer (Eisingerich & Rubera, 2010; Keller, 1993). While all marketing efforts are directed at attracting, maintaining and enhancing successful connection with the customers, the endeavour to develop a strong brand is certainly something that not to be missed (Fisher-Buttinger & Vallaster, 2008; Story & Hess, 2010). Given that companies use brand elements to relate with customers (Eisingerich & Rubera, 2010; Keller, 1993), understanding the customer-brand relationship would require the understanding of how the brand elements affect the consumers and how the customers evaluate the effect of the brand elements. Specifically, to determine the firm performance in developing a relationship with customers, it is critical to examine the effect of brand elements on customers from the customers' perspective.

Prior studies have identified that consumer commitment is the essential component to reflect the company's success in establishing long-term profitable brand-c onsumer relations (Keller, 2001). Recent evidence suggests that the stronger the consumers commitment towards a brand, the greater their willingness to stay with the brand (Ahluwalia, Burnkrant, & Unnava, 2000; Desai & Raju, 2007) and exhibit supportive behaviour in order to sustain a valued relationship in the future (Hess, Story, & Danes, 2011; Shuv-Ami, 2010; Story & Hess, 2010). Thus, it is difficult to ignore the consumers brand commitment in the endeavour to investigate the role of brand elements in the consumers' engagement process.

In addition, Kotler and Armstrong (2010) explain that in establishing a long term profitable customer connections, companies need to create value for customers before they can capture commitment from the customers. This suggests that successful brand-customer relationship depends on specific brand elements that do not only trigger commitment from the consumers towards the brand but also help the companies to communicate the right message about the brand so that the consumers will have a positive evaluation of the brand. Therefore, to ensure the sustainability of the relationship, it is critical for the companies to identify the brand elements that will stimulate favourable evaluation of a brand and eventually initiate the consumers brand commitment.

Aaker (1996) contends that brand identity can identify as well as differentiate a brand from its competitors. Recent evidence has shown that brand identity elements, particularly brand name, logo and slogan play a critical role to communicate what the brand stands for and disseminate the brand promises so that consumers may live up favourable perception and expectation of the brand. This view is supported by Schmit (1999), which signifies that the brand identity may not only function as the identifier by providing customers with certain indication towards the products, but also as the experience provider by providing consumer with favourable emotional experience in consuming the brand. It appears that brand identity elements can be an effective tool in brand value establishment and delivery, which eventually help companies in building a long term profitable relationship with their customers. Thus, in gaining consumers commitment and establishing the sense of attachment towards the brand, companies need to fully acknowledge and utilize the significance of brand identity.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

196

Prior studies have proposed the desirable qualities of effective brand name (Kotler & Armstrong, 2010; Y. H. Lee & Ang, 2003; Lerman & Garbarino, 2002), logo (Haig, 2006) and slogan (Kohli, Leuthesser, & Suri, 2007) as the guidelines for companies to design their brand elements. Nowadays, more companies have invested lots of effort and money in setting up their brand identity, either in the name, logo or slogan. Some try to be different from their competitors while others try to be slight almost the same as (somewhat at par with) their leading counterpart. Despite succeeding in obtaining the consumer's attention and interest, the role of brand identity to ensure the brand's survival is arguable. This is because, consumers no longer perceive the differentiation in brand identity as the significant driver of their behavioral response towards the brand (Romaniuk, Sharp, & Ehrenberg, 2007). As such, they suggest the new perspective of distinctive qualities, that is the qualities that most valued by the consumer ortermed as the identification triggers.

With respect to branding halal products, there is a trend among companies to employ Islamic elements in their brand name, logo and slogan. For instance, many companies use a name that is related to the Muslim community as their brand name such as Al-Islami, Saudi, Mu'min, Safi, Halalgel and Taharah. For logo, Islamic calligraphy is frequently employed as in Emirates Airlines, Safwa Health, Etisalat (the telecommunication company) and Arab Bank. Images that represent Islam such as mosque and crescent are sometimes used as in logo of Bank Muamalat and Bank Islam. In designing the brand slogan, the Islamic element is also utilized such as "your Islamic travel guide" (Halaltrip), "Fresh, Organic, Halal" (Radix FC), and "Halal, Toyyib, For All" (TaHa).

So, the question is, could the Islamic elements adopted (in…) create distinctiveness of the respective halal brands, that it may significantly stimulate favourable brand evaluation by the Muslim consumers and eventually initiate their brand commitment, particularly when halal logo has already served as a basis for customer halal purchases and the existing brands which adopt the Islamic identity have failed to position a truly Islamic identity (Shikoh, 2010) (the sentence is too long-rephrase). Thus, to increase the understanding on how the company can utilize the elements of brand identity in order to initiate consumers' commitment toward the brand and specifically investigate the impact of Islamic brand identity on Muslim consumers' commitment towards halal product, an empirical research on the topic need to be conducted. Therefore, it is important to conduct an empirical research investigating the significance of Islamic brand identity elements towards Muslim consumers commitment of the brand.

Based on the explanation, this study aims to examine the effect of Islamic brand identity elements on customers commitment towards halal-labelled brand. The results of this study suggest the role of Islamic brand identity, i.e. brand name, logo, slogan, in encouraging consumers commitment towards halal-labelled brand and provide valuable information for the operators in halal-based industry on how to brand their products as to engage the full commitment from the Muslim consumers.

Literature Review

Despite various elements that can be used to identify a brand, three elements i.e. name, logo and slogan have been established as integral to brand identity (Aaker, 1996; Kohli, Suri, & Thakor, 2002). Brand name is a core identity, an image anchor (Kohli, et al., 2007) and a basic information provider for the brand (Grace & O'Cass, 2005). Much research on brand name has frequently classified the brand name into two categories: brand name suggestiveness, which relates with a brand name that suggests the product benefits; and brand name non-suggestiveness, which refers to a brand name that does not suggest the product benefits (Klink, 2003; Y. H. Lee & Ang, 2003).

Brand logo, on the other hand, refers to a graphical identifier for the brand's personality and image (Haig, 2006). It is a symbol, a name set in a distinctive typographical style, or a combination of both that communicates with the purpose of stirring the consumers' emotion (Rowden, 2000). According to Wheeler (2003), brand logos can be classified into four different types, namely word-mark (a freestanding word, including the company's acronym, that is creatively written, either through the use of a distinctive font, abstract or pictorial elements), letterform (a unique single letter or number), pictorial (a literal and recognizable image) and abstract (a visual form without any words or objects attached to it). Furthermore, Jun and Lee (2007) depict that brand logos can be further classified into two broad categories, i.e. direct

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

197

expression of creative design (which portrayed in word-mark and letterform types of logo) and indirect expression (which portrayed in pictorial and abstract types of logo).

Slogan, which also termed as a tagline or brand signature, relates to a short phrase that depicts the essence, personality and position of a brand (Wheeler, 2003). Besides, it helps to establish an image, identity or position that makes the brand special (Dahlen & Rosengren, 2005; O'Guinn, Allen, & Semenik, 2003). Traverso (2000) asserts that slogan represents and summarises a company's interest. Further, Wheeler (2003) identifies five different types of slogans: imperative, descriptive, superlative, provocative, and specific expressions. The imperative slogan refers to an expression that commands action which usually starts with a verb, descriptive slogan describes the product or brand promise, superlative slogan identifies the company's positions as the best in its class, provocative slogan is thought provoking and frequently presented in a form of a question, while a specific slogan establishes leadership of a category. In addition, Jun and Lee (2007) state that brand slogans can also be divided into two categories: confrontation (direct speech) and accommodation (indirect speech). Taken into consideration only four classification of slogan expressions by Wheeler (2003), Jun and Lee (2007) clarify that confrontation slogan is described by Wheeler's imperative, superlative and provocative expression, while the accommodation is represented by the descriptive expression.

In general, commitment can be referred as the psychological attachment that forces an individual to act in order to maintain a relationship (Moorman et al., 1993). Extending this definition in the branding context, two major classifications can be made. The earlier definition relates commitment with the consumer inclination to perform a favourable behaviour towards his/her favourite band, particularly in buying the product (Traylor, 1983). This definition highlights the role of brand commitment as an indication of brand preference/choice. The next classification extends the commitment definition by emphasizing its crucial role as the indicator to maintain customer-brand relationship. According to this scheme, brand commitment can be defined as the emotional and psychological attachment that consumer has towards a brand based on experience that will subsequently influence their willingness to respond positively to a brand in order to maintain the consumer-brand connection (Chaudhuri & Holbrook, 2002; Keller, 2003; Thomson, MacInnis and Park, 2005). Following the latter definition, for the purpose of this study, brand commitment is defined as the psychological attachment to a brand that will influence the consumer to act favourably towards a brand.

Islamic brand identity and brand commitment
A brand identity, which also termed as a brand element (Keller, 1993), represents all the elements associated to a product including the name, term, sign, symbol and design (Armstrong, Kotler, & da Silva, 2005; Kerin, Hartley, & Rudelius, 2007). Specifically, Aaker (1996) defines brand identity as a compilation of unique brand associations which signifies what the brand really stands for and imply a promise to the consumers. Kapferer (2004) describes the brand identity as a component which specifies the brand's uniqueness and value. Thus, in brief, brand identity can be referred as all the elements that will address meaning, qualities and associations around the brand and serve as a mechanism for the consumers to identify and differentiate a product from any other products in the market. With such roles, it is obvious that brand identity can serve as a great tool to develop a connection with the customers.

To date, greater attention has been devoted to research on the integral components of brand identity. A review of past studies shows that brand name has been studied extensively as compared to brand logo and slogan, while the effectiveness of the brand element design has become the main aim for the studies as compared to understanding the possible effect of the brand identity (Keller and Lehman, 2006). So far, prior studies have proven the significant relationship between brand identity element and the consumer response variables. Pertaining to brand name, past studies demonstrate that brand name correlate significantly with the brand awareness (Y. H. Lee & Ang, 2003; Lerman & Garbarino, 2002; Pinero, Lockshin, Kennedy, & Corsi, 2010; Rahman & Rahaman, 2008; Samu & Krishnan, 2010) and brand attitude (Kocher & Czellar, 2007; Y. H. Lee & Ang, 2003). Moreover, the different attributes of a brand name would create differences on how the consumers evaluate the brand and consequently affect their response behaviour towards the brand (Klink, 2003; Y. H. Lee & Ang, 2003; Lerman & Garbarino, 2002). In specific, Lee and Ang (2003) support the existing belief by pointing out that brand name suggestiveness has a more positive association with the brand recall and attitude than the brand name

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

198

non-suggestiveness. However, the earlier study by Lerman and Garbarino (2002) shows a contradict result, that is the irrelevant word names (non-suggestive brand name) outweigh the effect of the relevant word names (suggestive brand name) on the brand awareness constructs including brand recall and brand recognition.

In the context of brand logo, past studies reveal that brand logo is significantly related to brand awareness (Rahman & Rahaman, 2008), brand identification (Gaillard, Romaniuk, & Sharp, 2005); and brand attitude (Jun & Lee, 2007; Kocher & Czellar, 2007; Walsh, Winterich, & Mittal, 2010). More importantly, these studies suggest that brand name-logo consistency would enhance their ability in communicating the brand meaning and affecting the consumer attitude towards the brand (Klink, 2003; Kocher & Czellar, 2007). Furthermore, significant difference between different logo categories has been reported (Jun & Lee, 2007). In particular, Jun and Lee (2007) point out that generally most companies use brand logos that are expressed in a direct way, particularly using a letter form, either in the alphabet or number, which indicating that this type of logo is favoured by the consumers to drive their positive responses. However, little research has attempted to test the different effect of those categories so far.
Prior research reveals a significant relationship between brand slogan and the brand awareness (Kohli, et al., 2007; Rahman & Rahaman, 2008; Romaniuk, Nenycz-Thiel, Harnett, & Corsi, 2010) and brand attitude (Jun & Lee, 2007). In addition, Jun and Lee (2007) identify that confrontational brand slogan as the mostly used. Supporting the finding, Kohli et al. (2007) emphasize that effective slogan should highlight the brand's main strengths in a clear manner, employ a long term view and embrace tomorrow's business. Apparently, the confrontation brand slogan is valued more by the consumer than the accommodation brand slogan. However, similar to brand logo, studies on the effect of different types of brand slogan has been scarce.

From the overall view, it is apparent that brand identity elements do affect the consumers' responses towards the brand, particularly the brand awareness and attitude. Thus, it is appropriate to argue that the brand identity elements can also affect any other consumer responses, including the brand commitment. Until recently, there are numerous studies examining the consumers commitment towards the brand. In recent years, there has been an increasing amount of literature on the antecedent of brand commitment. For example brand commitment has been associated with corporate image (Fiedler, Kastner, & Kirchgeorg, 2008); consumer satisfaction, investment and alternatives (Sung & Choi, 2010) and; personality traits (Louis & Lombart, 2010). In addition, Lee, Knight and Kim (2008), which studied the consumers' different perception between local and global brands, shows that country and brand types would have a significant effect on brand commitment. From the finding, it can be concluded that consumers in different countries would commit differently towards different types of brands. Hence, in understanding the brand commitment, the matter of consumers location needs to be considered. As most of the brand commitment research has been conducted in western countries, such as in the US (M. Y. Lee, et al., 2008; Sung & Choi, 2010), France (Louis & Lombart, 2010) and Germany (Fiedler, et al., 2008), it would be useful to have the insight of the consumers brand commitment in developing countries, particularly Malaysia.

Though, brand identity and brand commitment are the key players in relationship building with customers (Campbell, 1999; Kotler & Armstrong, 2010), relatively little research has been carried out to investigate the role of brand identity in affecting the commitment. Preliminary work to link the brand identity with the commitment undertaken by Coop (2005b) has been able to demonstrate a significant relationship between brand identity constructs and the consumers commitment towards brand. However, Coop (2005b) adopted a more complex construct of brand identity, which consists of five major constructs, namely brand performance, relevance, reputation, relationship and personality. Thus, although the relationship between the two constructs has been empirically proven, due to different definition used, it is insufficient to simply assume that brand name, logo and slogan correlate with the brand commitment. Nevertheless, given that there is a significant positive connection between the brand identity elements (i.e. brand name, logo and slogan) and brand attitude (Grace & O'Cass, 2005; Kocher & Czellar, 2007; Y. H. Lee & Ang, 2003; Rahman & Rahaman, 2008; Shuv-Ami, 2010), and commitment is one of the brand attitude dimensions (Ahluwalia, et al., 2000), it provides the initial basis to predict that the antecedents of the brand attitude can also serve as the antecedents of brand commitment. Thus, it is appropriate to assume that the relationship exists between brand identity elements and brand commitment.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

199

Considering the finding by Rehman and Shabbir (2010) that religious dictations affect the Muslim consumers' attitude towards the adoption of new product, it could be expected that the endeavours of many companies embedding the Islamic element in the brand name, logo and slogan would attract the interest and commitment of the Muslim consumers. Thus, in line with the above arguments, the following hypotheses are proposed:

> H1: There is a significant relationship between Muslim consumers evaluation of Islamic brand name i.e. (a) suggestive and (b) non-suggestive; and their brand commitment.
> H2: There is a significant relationship between Muslim consumers evaluation of Islamic logo i.e. (a) direct and (b) indirect expression; and their brand commitment.
> H3: There is a significant relationship between Muslim consumers evaluation of Islamic slogan (a) accommodation and (b) confrontation; and their brand commitment.

Based on the preceding hypotheses developed, a framework for this study is proposed and illustrated in Figure 1.

Islamic Brand Identity

| Brand Name |
| • Suggestive |
| • Non-suggestive |

H1

| Brand Logo |
| • Direct Expression |
| • Indirect Expression |

H2

| Brand Commitment |

| Brand Slogan |
| • Confrontation |
| • Accommodation |

H3
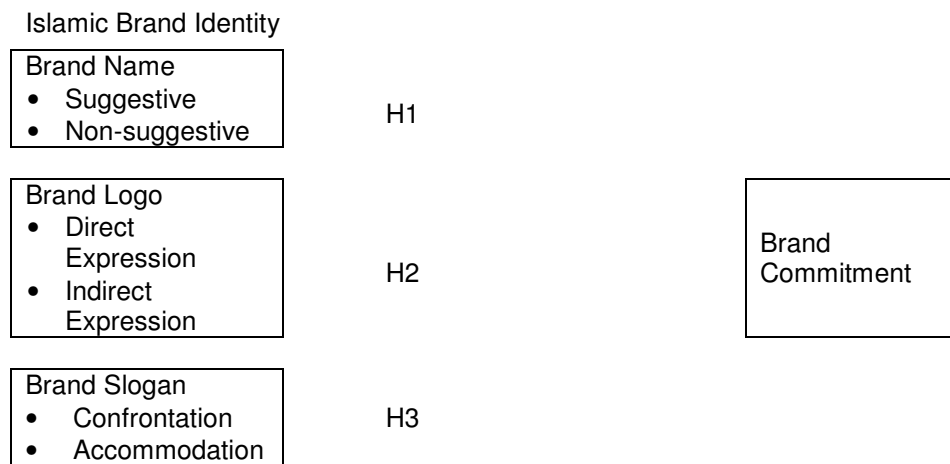
Figure 1. Research Framework

Methodology
The target population for this study consists of Malaysian Muslim at the age of 18 years old and above. The respondents to make up a sample for this study were selected using the convenience sampling method. In total, 300 e-mail invitations were sent, resulting in 221 completed questionnaires, representing a 73.67 percent of response rate.

Initially, a pilot study was conducted with a convenience sample of 43 Muslims to test the reliability of the items and to ensure whether the respondents can really understand the questions or not. Based on the comments from the respondents, the questionnaire was modified, particularly to the scale and the word used. The reliability test results show that the Cronbach's alpha coefficients of all constructs are greater than 0.6, which imply that all the constructs are reliable for use in this study.

Upon finalizing on the questionnaire, the actual data collection was carried out online for four weeks, starting from April 4, 2011 to May 2, 2011. Questionnaires were emailed to 300 randomly selected Muslim consumers through Google Docs form.

Results
Profile of respondents and reliability test
A total of 221 responses were collected from Muslims respondents, which majority of them are female 141 (63.8%) and 80 are male. In terms of age, the majority of the respondents are in the range of 30 to 39 years old 125 (56.6%). The remaining are 54 (20 – 29 years old), 32 (40 – 49 years old) and 10 (50 years old and above). Further, 119 (53.8%) have obtained postgraduate education and 58 undergraduate education. Another 25 have at least Diploma or Certificate education; while 19 are school leavers. In terms of occupation, more than 50 percent of the respondents hold professional position 127 (57.5%), 30

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

200

are students, 23 are the technical and support staffs, 16 are middle managers while the rest are either top managers (2), businessmen (2) or others. With regards to monthly income level, 72 (32.6%) earn between RM3000 to RM4999 and 58 between RM2000 to RM3999. The remaining are 37, which earn between RM4000 to RM4999, 29 earn less than RM2000, 17 earn RM6000 or more and, 8 earn RM5000 to RM5999. As shown in Table 5, the reliability test on the seven variables has resulted in the Cronbach's alpha values that are greater than the cutoff value of 0.7 (Hair, Black, Babin, & Anderson, 2010). As such, all items are reliable measurement of their respective constructs.

Table 5: Reliability Test Results

Constructs	Cronbach's Alpha	N of Items
Brand identity evaluation		
Suggestive brand name	0.899	6
Non-suggestive brand name	0.945	10
Direct expression brand logo	0.951	6
Indirect expression brand logo	0.917	6
Accommodation brand slogan	0.906	3
Confrontation brand slogan	0.953	8
Brand commitment	0.934	7

Results of Multiple Linear Regression

In order to check whether the assumptions of Multiple Regression are met, preliminary assumption testing for normality, outliers and multicollinearity are conducted. The skewness and kurtosis values are in the range of ±2 (Garson, 2012), which satisfy the normality assumption. The boxplots show no extreme cases and the Mahalanobis distance values are less than the critical chi-square values of 22.46 at an alpha level of 0.001, which indicating no univariate as well as multivariate outliers (Coakes & Steed, 2003). Further, the variance inflation factor (VIF) values for independent variables are less than 3.0, which is well below the recommended upper limit of 10 (Hair, et al., 2010) with tolerance above 0.2 (Garson, 2012). Therefore, multicollinearity problem does not appear to influence the results. As no significant violation is found, the data is suitable for further analysis.

Table 6 gives the regression results for the model with brand commitment as the dependent variable. Notice that the R square (R^2) for the model is 0.335. With 33.5 percent, the six independent variables, namely suggestive brand name, non-suggestive brand name, direct expression brand logo, indirect expression brand logo, confrontation brand slogan and accommodation brand slogan, are reasonably good at explaining the variation in the brand commitment. Despite the regression model is significant, the predictive power of the variables is weak, as indicated by the low F value. An examination of the coefficients clarifies that only the direct expression logo, suggestive brand name and confrontation brand slogan significantly predict the brand commitment, which the relationships are all positive. Comparing the standardized coefficients, the direct expression logo is the most significant predictor of the brand commitment with a beta coefficient of 0.377. Additionally, independent sample T-test analysis is conducted to examine the significant difference of consumer evaluation between suggestive and non-suggestive brand name, direct and indirect brand logo and confrontation and accommodation brand slogan. Based on Table 7, the result shows that there is a significant difference in the Muslim consumers evaluation of the brand name, logo and slogan, which suggestive brand name, indirect logo and accommodation slogan are more favoured by the Muslim consumers rather than non-suggestive brand name, direct logo and confrontation slogan, respectively. Overall, H1a, H2a and H3b are supported (Table 8).

Table 6: Factors Affecting Brand Commitment

Dependent Variable	Brand Commitment
R	0.579
R Square	0.335
Adjusted R Square	0.316
Std. Error of the Estimate	1.154
F	17.958

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

201

	Unstandardized Coefficients	Standardized Coefficients
Suggestive brand name	0.263	0.218**
Non-suggestive brand name	-0.120	-0.108
Direct expression brand logo	0.438	0.377***
Indirect expression brand logo	-0.115	-0.096
Accommodation brand slogan	0.038	0.033
Confrontation brand slogan	0.253	0.220*

Note:　*p<.05,　　**p<.01,
***p<.001 (two-tailed)

Table 7: Independent Samples T-Test

		t	Sig. (2-tailed)
Pair 1	suggestivename - nonsuggestivename	7.673	.000**
Pair 2	directlogo - indirectlogo	-1.726	.086*
Pair 3	confrontationslogan - accomodationslogan	- 8.889	.000**

Note: *p<.1, **p<.01

Table 8: Summary of Hypothesis Testing Results

Hypotheses	Result
H1a: Suggestive brand name → brand commitment	Supported
H1b: Non-suggestive brand name → brand commitment	Not supported
H2a: Direct expression logo → brand commitment	Supported
H2b: Indirect expression logo → brand commitment	Not supported
H3a: Accommodation slogan → brand commitment	Not supported
H3b: Confrontation slogan → brand commitment	Supported

Discussion

This study sets out to investigate the effect of Islamic brand name, logo and slogan on the Muslim consumers commitment towards halal brand. This study contributes to the consumer-brand relationship literature by demonstrating the importance of brand identity elements, particularly on the Islamic attributes, in affecting the consumers commitment towards the halal brand. Following outcomes from the literature relating to brand identity elements (brand name, logo and slogan) and brand commitment, six hypotheses were generated.

In total, 221 responses are collected to test the research model. Despite that Muslim consumers prefer the suggestive brand name, indirect brand logo and accommodation brand slogan, only suggestive brand name, direct expression logo and confrontation brand slogan have been found as the significant predictors of the brand commitment. Thus, the results reveal that Muslim consumer preferences of Islamic attributes as the brand identity does not have much influence to drive their commitment towards the brand. Somehow, the results support the assumption of the significant relationship between the brand identity elements and the brand commitment (Coop, 2005a, 2005b; Walsh, et al., 2010), which consequently proves Islamic brand name, logo and slogan do affect the Muslim consumers brand commitment.

In detail, the result confirms that the suggestive brand name has a greater effect over non-suggestive brand name (Y. H. Lee & Ang, 2003) and the premise that effective brand name should suggest the product benefit is still relevant, though it has been argued by Lerman and Garbarino (2002). Moreover, the positive effect on the brand commitment explains that the use of the Islamic brand name that suggests the product benefit will significantly influence the Muslim consumers commitment than the Islamic brand name that does not suggest the product benefit. Further, this study demonstrates that the Muslim consumers evaluate the indirect expression logo more favourably than the direct expression logo, indicating that the use of Islamic symbol or image such as mosque or crescent is preferred by the Muslim

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

202

consumers. However, only direct brand logo significantly influences the brand commitment, highlighting the importance of direct over indirect brand logo. As such, the finding provides evidence that to be effective, brand logo should be expressed in a direct way (Jun & Lee, 2007). As for the slogan, the study reveals that accommodation is evaluated more favourably than accommodation slogan, but confrontation slogan significantly predicts the brand commitment. To a certain extent, the finding conforms the prior research findings that effective brand slogan should command action, identify the brand as the best in its class or provoke the consumers interest than just describe the product/brand and brand promise (Jun & Lee, 2007; Kohli, et al., 2007). Thus, similar with the general consumers, the Muslims also look for the brand quality and strength, particularly on the halalness of product, since halal is a mandatory aspect for Muslims to consider before purchasing (Rehman & Shabbir, 2010).

Thus, to reinforce the Muslim consumers commitment to halal brand, Islamic identity can be adopted. In particular, the emphasis should be given on the use of the suggestive brand name, direct expression brand logo and confrontation brand slogan. Probably the Islamic calligraphy is uncommonly used to brand non halal product that the Muslim consumers perceive as the key factor in their decision to commit. Other than that, the Muslim consumers also value the use of an Islamic brand name that highlights the product benefits and Islamic slogan that provokes the importance to consume halal product and practice the Islamic way of life.

Implication

The result of the current research adds substantially to the understanding of the role of brand identity i.e. name, logo and slogan in influencing the brand commitment, particularly the Islamic identity to affect the Muslims commitment toward halal brand. Specifically, the results of this study reveal that the Islamic elements in the suggestive brand name, indirect brand logo and accommodation brand slogan are preferable. However, given that only the suggestive brand name, direct expression brand logo and confrontation brand slogan are the significant predictors to affect the brand commitment, managers should utilize Islamic elements in those components of brand identity in order to establish and reinforce the Muslims commitment of halal brand.

Limitations and Direction for Future Research

A number of important limitations need to be noted regarding the present study. Firstly, the study omitted some other important variables that could be the possible antecedents of brand commitment such as brand personality, trust, satisfaction and attachment. Thus, the future work should examine other potential factors that might influence the brand commitment. Secondly, this study has a limitation in terms of the generalization of the research outcome. Although, the sample size represents a reasonable response rate, in relative to the Muslim population in Malaysia, the sample size used is considered small. Hence, a larger sample would be better to generalize the finding. In addition, the non-probability sampling method that was used in selecting the respondents would also lead to a result that cannot be generalized to a larger population. Moreover, as this study conducted in the context of Malaysian Muslims and halal product, the result cannot be necessarily generalized to any other context. Finally, this study has a restriction that relates to data collection. As the data for the study was collected online, the potential shortcoming would be the unknown respondents. That is, it could not be verified whether the one being emailed is the one that answering the questionnaire and more importantly who the respondent really is. As this study is interested in getting the Muslims evaluation, the religion of the respondent matters significantly.

References

Aaker, D. (1996). Measuring brand equity across products and markets. *California Management Review, 38*(1996), 102-119.

Ahluwalia, R., Burnkrant, R. E., & Unnava, H. R. (2000). Consumer response to negative publicity: the moderating role of commitment. *Journal of Marketing Research, 37*(2), 203-214.

Al-Harran, S., & Low, P. (2010). Halal Product Marketing: Which Way? . Retrieved from http://halalmedia.my/halal-product-marketing-which-way/

Alqahtani, A. A. (2011). Toward a clarification of the concept of relationship marketing. *International Journal of Management, 28*(2), 585 - 590.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

203

Alserhan, B. A. (2010). On Islamic branding: brands as good deeds. *Journal of Islamic Marketing, 1*(2), 101 - 106.

Armstrong, G., Kotler, P., & da Silva, G. (2005). *Marketing: An introduction- An Asian Perspective*. New Jersey: Pearson Education.

Bonne, K., Vermeir, I., Bergeaud-Blackler, F., & Verbeke, W. (2007). Determinants of halal meat consumption in France. *British Food Journal, 109*(5), 367-386.

Campbell, A. (1999). Building Brand Identity in the New Economy. Infoworks! Information Design - Content Strategy. Retrieved from http://www.infoworks1.com.

Carter, T. (2008). Customer Engagement and Behavioral Considerations. *Journal of Strategic Marketing, 16*(1), 21-26.

Circles. (2010). Turning Emotion into Engagement: Utilizing the power of emotion to connect customers to your brand. Retrieved from http://www.circles.com/docs/CE%20Whitepaper_Engagement_071410.pdf

Coakes, S. J., & Steed, L. G. (2003). *SPSS analysis without anguish: version 11.0 for windows*. Queensland: John Wiley & Sons Australia Ltd.

Coop, B. (2005a). A question of identity. *Journal of Marketing, 11*(1), 36-37.

Coop, B. (2005b). The Relative Importance of Five Key Dimensions of Brand Identity and their Impact on Brand Commitment. Retrieved from http://www.metathink.co.za/articles/The%20Relative%20Importance%20of%20Key%20Dimensions%20of%20Brand%20Identity.pdf

Dahlen, M., & Rosengren, S. (2005). Brands affect slogans affect brands? Competitive interference, brand equity and the brand-slogan link. *The Journal of Brand Management, 12*(3), 151-164.

Desai, K. K., & Raju, S. (2007). Adverse influence of brand commitment on consideration of and preference for competing brands. *Psychology & Marketing, 24*(7), 595-614.

Eisingerich, A. B., & Rubera, G. (2010). Drivers of brand commitment: A cross-national investigation. *Journal of International Marketing, 18*(2), 64-79.

Fiedler, L., Kastner, E., & Kirchgeorg, M. (2008). Antecedents and Consequences of Brand Image Components in Different Target Groups of Corporate Brands. Retrieved from http://www.hhl.de/fileadmin/LS/marketing/Download_Publikationen/Antecedents_and_Consequences_of_Brand_Image_Components_in_Different_Target_Groups_of_Corporate_Brands_EMAC_Paper_2007.pdf

Fisher-Buttinger, C., & Vallaster, C. (2008). *Connective branding: building brand equity in a demanding world*. West Sussex, England: John Wiley & Sons Limited.

Fournier, S. (1998). Consumers and Their Brands: Developing Relationship Theory in Consumer Research. *Journal of Consumer Research, 24*(March 1998), 343-373.

Free World Academy. (2005). World Population Prospects: The "Islamic Bomb". Retrieved from http://www.freeworldacademy.com/globalleader/population.htm#2

Frost, R. (2007). Where are the "Muslim" brands? Retrieved from http://www.brandchannel.com/

Gaillard, E., Romaniuk, J., & Sharp, A. (2005). *Exploring Consumer Perceptions of Visual Distinctiveness*. Paper presented at the Australian and New Zealand Marketing Academy Conference (ANZMAC 2005).

Garson, G. D. (2012). Testing Statistical Assumptions. *Blue Book Series*, 53. Retrieved from http://www.statisticalassociates.com/assumptions.pdf

Golnaz, R., Zainalabidin, M., Mad Nasir, S., & Eddie Chiew, F. C. (2010). Non-Muslims' awareness of Halal principles and related food products in Malaysia. *International Food Research Journal, 17*(2010), 667-674.

Grace, D., & O'Cass, A. (2005). Examining the Effects of Service Brand Communications on Brand Evaluation. *Journal of Product and Brand Management, 14*(2), 106-116.

Haig, W. L. (2006). *How and why credibility-based company logos are effective in marketing communication in persuading customers to take action: a multiple case study toward a better understanding of creativity in branding*. Unpublished PhD Thesis, Southern Cross University, Lismore, New South Wales.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A global perspective* (7th edition ed.). Upper Saddle River, New Jersey: Pearson Education Inc.

Hess, J., & Story, J. (2005). Trust-based commitment: multidimensional consumer-brand relationships. *Journal of Consumer Marketing, 22*(6), 313-322.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

204

Hess, J., Story, J., & Danes, J. (2011). A three-stage model of consumer relationship investment. *Journal of Product & Brand Management, 20*(1), 14-26.

Jun, J. W., & Lee, H. S. (2007). Cultural differences in brand designs and tagline appeals. *International Marketing Review, 24*(4), 474-491.

Kapferer, J. N. (2004). *The new strategic brand management: Creating and sustaining brand equity long term*. London: Kogan Page.

Keller, K. L. (1993). Conceptualizing, measuring and managing customer-based brand equity. *Journal of Marketing, 57*(1), 1-22.

Keller, K. L. (2001). Building customer-based brand equity: A blueprint for creating strong brands. *Marketing Management, 10*(2001), 15-19.

Kerin, R. A., Hartley, S. W., & Rudelius, W. (2007). *Marketing: The core* (2nd edition ed.). New York: McGraw-Hill.

Klink, R. (2003). Creating meaningful brands: the relationship between brand name and brand mark. *Marketing Letters, 14*(3), 143-157.

Kocher, B., & Czellar, S. (2007). To be or not to be consistent in brand logo changes? *No 875, Les Cahiers de Recherche, HEC Paris*. Retrieved from http://econpapers.repec.org/RePEc:ebg:heccah:0875

Kohli, C., Leuthesser, L., & Suri, R. (2007). Got Slogan? Guidelines for creating effective slogans. *Business Horizons, 50*(2007), 415-422.

Kohli, C., Suri, R., & Thakor, M. V. (2002). Creating Effective Logos: Insight from theory and practice. *Business Horizons, 45*(3), 58.

Kotler, P., & Armstrong, G. (2010). *Principles of Marketing* (13th edition ed.). Singapore: Pearson Education International.

Lada, S., Tanakinjal, G. H., & Amin, H. (2009). Predicting intention to choose halal products using theory of reasoned action. *International Journal of Islamic and Middle Eastern Finance and Management, 2*(1), 66-76.

Lee, M. Y., Knight, D., & Kim, Y. K. (2008). Brand analysis of a US global brand in comparison with domestic brands in Mexico, Korea, and Japan. *Journal of Product & Brand Management, 17*(3), 163 - 174.

Lee, Y. H., & Ang, K. S. (2003). Brand name suggestiveness: a Chinese language perspective. *International Journal of Research in Marketing, 20*(2003), 323 - 335.

Lerman, D., & Garbarino, E. (2002). Recall and recognition of brand names: A comparison of word and nonword name types. *Psychology and Marketing, 19*(7-8), 621-639.

Louis, D., & Lombart, C. (2010). Impact of brand personality on three major relational consequences (trust, attachment, and commitment to the brand). *Journal of Product & Brand Management, 19*(2), 114-130.

Md. Tawfik, S. M. A., Ishak, I., Hasnah, H., & Md. Aminul, I. (2008). *Intention to Patronage Halal Restaurants Among Malaysian Muslims: An Issue of Halal Perception*. Paper presented at the International Conference on Social Sciences and Humanities (ICoSSH 08).

O'Guinn, T. C., Allen, C. T., & Semenik, R. J. (2003). *Advertising and Integrated Brand Promotion*. USA: South Western.

Pinero, M. A., Lockshin, L., Kennedy, R., & Corsi, A. (2010). *Distinctive elements in packaging (FMCG): an exploratory study*. Paper presented at the Australian and New Zealand Marketing Academy Conference (ANZMAC 2010).

Rahman, M., & Rahaman, M. A. (2008). *To what extent the brand equity of high involvement products influence the consumers' purchase decision: an empirical study in Umea, Sweden.* Unpublished Masters Thesis, Umea University, Umea, Sweden.

Raja Nazrin Shah. (2010). *Religion, culture and branding: the importance of understanding and the challenges of engaging a global multicultural world*. Paper presented at the The Inaugural Oxford Global Islamic Brands and Marketing Forum.

Rehman, A.-u., & Shabbir, M. S. (2010). The relationship between religiosity and new product adoption. *Journal of Islamic Marketing, 1*(1), 63-69.

Romaniuk, J., Nenycz-Thiel, M., Harnett, N., & Corsi, A. (2010). *Developing memory structures for brand identity elements in packaged goods markets*. Paper presented at the Australian and New Zealand Marketing Academy (ANZMAC 2010).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

205

Romaniuk, J., Sharp, B., & Ehrenberg, A. (2007). Evidence concerning the importance of perceived brand differentiation. *Australasian Marketing Journal (AMJ), 15*(2), 42-54.

Rowden, R. W. (2000). The relationship between charismatic leadership behaviors and organizational commitment. *Leadership & Organization Development Journal, 21*(1), 30 - 35.

Salehudin, I., & Luthfi, B. A. (2010). *Marketing impact of Halal labeling towards Indonesian Muslim consumer's behavioral intention based on Ajzen's Planned Behavior Theory: Policy capturing studies on five different product categories.* Paper presented at the 5th International Conference on Business and Management Research (ICBMR).

Samu, S., & Krishnan, H. S. (2010). Brand Related Information as Context: The Impact of Brand Name Characteristics On Memory And Choice. *Journal of Academy Of Marketing Science, 38*(2010), 456-470.

Schmit, B. H. (1999). *Experiential marketing: How to get customers to sense feel, think, act and relate to your company and brands.* New York: Free Press.

Schraft, C., & Micu, A. C. (2010). Building Customer Equity in a Multichannel World: The Strategic Content Engagement Process. *White Paper.* Retrieved from http://www.timeinccontentsolutions.com/downloads/tics_whitepaper_041610.pdf

Shikoh, R. (2010). *Innovative Muslim Market Brands & Opportunity Gap.* Paper presented at the The Inaugural Oxford Global Islamic Brands and Marketing Forum.

Shuv-Ami, A. (2010). *A New Brand Commitment Scale for Market Segmentation.* Paper presented at the Australian and New Zealand Marketing Academy Conference 2010 (ANZMAC 2010)

Story, J., & Hess, J. (2010). Ethical brand management: customer relationships and ethical duties. *Journal of Product & Brand Management, 19*(4), 240-249.

Sung, Y., & Choi, S. M. (2010). I won't leave you although you disappoint me: The interplay between satisfaction, investment and alternatives in determining consumer-brand relationship commitment. *Psychology & Marketing, 27*(11), 1050-1074.

Temporal, P. (2010). *The Growth of Global Islamic Business.* Paper presented at the The Inaugural Oxford Global Islamic Brands and Marketing Forum.

Traverso, D. K. (2000). *Outsmarting Goliath: How to Achieve Equal Footing with Companies that are Bigger, Richer, Older, and Better Known.* Princeton, NJ: Bloomberg Press.

Walsh, M. F., Winterich, K. P., & Mittal, V. (2010). Do logo redesigns help or hurt your brand? The role of brand commitment. *Journal of Product & Brand Management, 19*(2), 76-84.

Wheeler, A. (2003). *Designing Brand Identity: A Complete Guide to Creating, Building, and Maintaining Strong Brands.* New Jersey: Wiley.

Young, M. (2010). *Muslim futurism and Islamic branding.* Paper presented at the The Inaugural Oxford Global Islamic Brands and Marketing Forum.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

206

The Relationships between Work Ethics, Design Leadership and Workplace Innovation: A Comparative Study across Nations

Wong Kee Luen[a], Adela McMurray[b], Teh Hong Leong[c], Ng Shwu Shing[d], Peter Tan Sin Howe[e], Fong Chee Yang[f], Ng Yin Kuan[g]

[a]*Universiti Tunku Abdul Rahman, Malaysia, wongkl@utar.edu.my*
[b]*RMIT University, Australia, adelamcmurray@rmit.edu.au*
[c]*Universiti Tunku Abdul Rahman, Malaysia, tehhl@utar.edu.my*
[d]*Universiti Tunku Abdul Rahman, Malaysia, nsshing@utar.edu.my*
[e] *Universiti Tunku Abdul Rahman, Malaysia, shtan@utar.edu.my*
[f] *Universiti Tunku Abdul Rahman, Malaysia, fongcy@utar.edu.my*
[g] *Universiti Tunku Abdul Rahman, Malaysia, ngyk@utar.edu.my*

_____

Abstract

This paper attempts to present some preliminary results of an on-going research project with the international collaborative partner (ICP), Professor Adela McMurray of RMIT University, Australia. The project aims to examine the effect of design leadership behavior on the relationship between work value ethics and workplace innovation within seven nations, Malaysia included. The scope of our collaboration is within the Malaysian context. The measuring instrument (questionnaire) is provided by the leading research team in Australia and is to be used commonly across seven countries. The questionnaire primarily comprises the Work Value Ethics (WVE) instrument, the Design Leadership Questionnaire (DLQ), and the Workplace Innovation Scale (WIS). We have so far collected data from one hundred respondents. We used two statistical analytical software; the Statistical Packages for Social Sciences (SPSS) and the SmartPLS to perform the preliminary analyses. We constructed the measurement models and structural models and found that both the design leadership (DL) and workplace innovation (WI) constructs were reflective in nature. However, the work value ethics (WVE) construct appeared to be formative in nature. In addition, design leadership was found to be a strong and significant mediator on the relationship between work value ethics and workplace innovation.

Keywords: work ethics, design leadership, workplace innovation, mediating effect, structural models.

_____

Introduction

The idea for the international collaborative research project was provided by the ICP, Professor Adela McMurray of RMIT University, Australia. The primary purpose of the study is to examine the relationships between three constructs; work value ethics, design leadership, and workplace innovation of business organizations across seven countries, namely Australia, Thailand, China, Vietnam, Malaysia, United States, and Mexico. The Malaysian part of the study was awarded to Universiti Tunku Abdul Rahman (UTAR) and assigned under UTAR Research Fund 2014.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

207

Literature Review

It has been revealed that national culture is one of the factors that could have a huge impact on the way managers lead their subordinates and therefore requires managers to adopt or adjust their style of leadership. For example, Australians and Thais are identified as having different cultural backgrounds (Hofstede, 1984) which influence their leadership styles. Australian leaders tend to be participative, direct and willing to take more risk than their Thai counterparts (see Muenjohn, et al., 2012). However, few studies have explored the relationships between culture (values) at the individual level and links to leadership behavior and style, in particular, using leadership as a mediating factor on the relationship between work value ethics and workplace innovation.

The Work Value Ethics (WVE) instrument developed by McMurray and Scott (2003) is based on the Protestant Work Ethic (PWE), and may be utilized in studies addressing various religions, atheism or agnosticism (McMurray & Scott, 2012). Understanding people's work value ethics is believed to help improve relationships with employees and increase commitment and productivity. However, the effect of WVE on leadership practices and workplace innovation are still unexplored, especially within the cross-national global study setting. To measure the innovation process, the Workplace Innovation Scale developed by McMurray and Dorai (2003) will be utilized. This instrument has been assessed and tested for its reliability and validity in previous studies over the past ten years.

Design leadership is a new emerging concept of leadership. Design leadership can be defined simply as the " .. means both to design and to lead – to lead design and to lead business by design" (Design Management Institute, 2006, p. 2) and is also described as a form of leadership that creates and sustains innovation design solutions (Turner and Topalian, 2002). While the quality of design leadership is believed to contribute to the success or failure of designed and innovative outcomes, the notion of design leadership is still highly ambiguous and leads to key questions such as: What is design leadership? Who are the design leaders? How can a leader lead with design? How can organizations help to develop more effective design leaders?

Therefore, we attempt to examine the effect of work values ethics on design leadership behavior and workplace innovation in Malaysia (as our scope of the UTARRF grant is to be within the Malaysian context). To achieve this aim, two key research questions are proposed:

To what extent does work values ethics influence design leadership and workplace innovation?
Are the mediating and indirect effects of design leadership on the relationship between work values ethics and workplace innovation statistically significant, and if significant, are the effects weak, moderate or strong?

Research Methodology

The scope of the project specifies that we are to carry out a questionnaire survey on retailers in Malaysia. With the permission of the lead researcher, we plan to conduct the survey in three main cities of Malaysia, namely Kuala Lumpur, Penang, and Ipoh and to achieve 300 valid responses, 100 responses from each city mentioned earlier. (By the time we write this report, we have collected 100 responses from the city of Ipoh.)

The questionnaire or measuring instrument primarily comprises the Work Value Ethics (WVE) instrument, the Design Leadership Questionnaire (DLQ), and the Workplace Innovation Scale (WIS). The Work Value Ethics (WVE) instrument was developed by McMurray and Scott (2003) and has five items. The Design Leadership Questionnaire (DLQ) was developed by Muenjohn and Ishikawa (2012) and has eighteen items. To measure the innovation process, the Workplace Innovation Scale (WIS) developed by McMurray and Dorai (2003) will be utilized. The WIS has twenty-four items.

We plan to use two analytical software to analyze the collected data; SPSS version 20 as well as SmartPLS version 2.3. We used SPSS to run linear regression analyses (LRA) and the SmartPLS to

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

208

construct the measurement and structural models as well as to test the reliability and validity of the structural models constructed.

Data Analysis and Discussions

As data collection is still on-going, we can only conduct preliminary analyses on the 100 responses collected from Ipoh. Therefore, the results are only relevant to Ipoh, a location situated in the state of Perak in Malaysia. After checking and editing, we entered the data collected into the SPSS analytical software. We used the data to perform two key procedures and analyses: constructing the measurement and structural models with SmartPLS, and to run linear regression models with SPSS.

Constructing the Models with SmartPLS

We imported the SPSS file that was saved under the "csv" format into SmartPLS and constructed the measurement and structural models accordingly. The models are presented as Figure 1 and Figure 2.

We created a new project entitled "Adela Ipoh" using SmartPLS. The latent variables were named "ethic" for work value ethics, "d'leader" for design leadership, and "innova" for workplace innovation. The indicators for the latent variables were dragged from the indicator file into the drawing board. The eighteen indicators for the "d'leader" construct and the twenty-four indicators for "innova" construct were deemed to be reflective in nature. However, for the "ethic" construct, the indicators appeared to be formative in nature, so we reversed the measurement model for "ethic". We then run the logarithm calculation on the models constructed. As the measurement models for "d'leader" and "innova" were reflective in nature, indicators with loadings less than 0.7 were eliminated from the model constructed. Only seven out of eighteen indicators for "d'leader" were found to be reliable and valid. They are "lead10" (loading=0.758), "lead12" (0.841), lead 13 (0.823), lead15 (0.806), lead16 (0.776), "lead6" (0.750), and "lead8" (0.762). As for the workplace innovation ("innova") construct, only six out of twenty-four indicators were found to be reliable and valid. They were "inno13" (loading=0.720), "inno14" (0.881), "inno15" (0.845), "inno16" (0.843), "inno18" (0.858), and "inno2" (0.782).

The work value ethics (ethic) measurement model is a formative model. The results calculated and shown on the model were standardized regression weights or path coefficients. Only regression weights of more than 0.2 were considered reliable and valid. Four out of five indicators were accepted as indicators for "ethic". They were "ethic1" (β=0.416), "ethic2" (β=-0.510), "ethic3" (β=0.406), "ethic5" (β=0.891). Indicator "ethic4" was removed from the model.

The amended model (with the unreliable and invalid indicators removed) was re-run and their logarithms calculated. All the loadings and path coefficients were checked and were found to be more than 0.7 and 0.2 respectively yielding valid outer (measurement) and inner (structural) models. The final resulting model is shown in Figure 1.

To ensure that all the loadings of indicators and the path coefficients of the latent variables (LV) are significant, the bootstrapping process was applied to the data. To be significant, the results have to be more than 1.96 at 95% level of confidence and more than 2.56 at 99% level of confidence. Figure 2 shows the bootstrapping results. All the results were more than 1.96. This means that all loadings of the indicators and path coefficients of the LVs were significant to the model constructed. Apart from loadings of indicators "ethic1" (2.203), "ethic2" (2.204), "ethic3" (2.046) which were significant at 95% level of confidence, the loadings of all the other indicators were significant at 99% level of confidence. As far as the path coefficients of the LVs are concerned, the coefficient of "ethic" (2.385) was significant at 95% level of confidence. Coefficients of the other two latent variables, "d'leader" (3.880) and "innova" (8.009) were significant at 99% level of confidence. The results of the bootstrapping process on the outer and inner models were shown in Figure 2.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

209
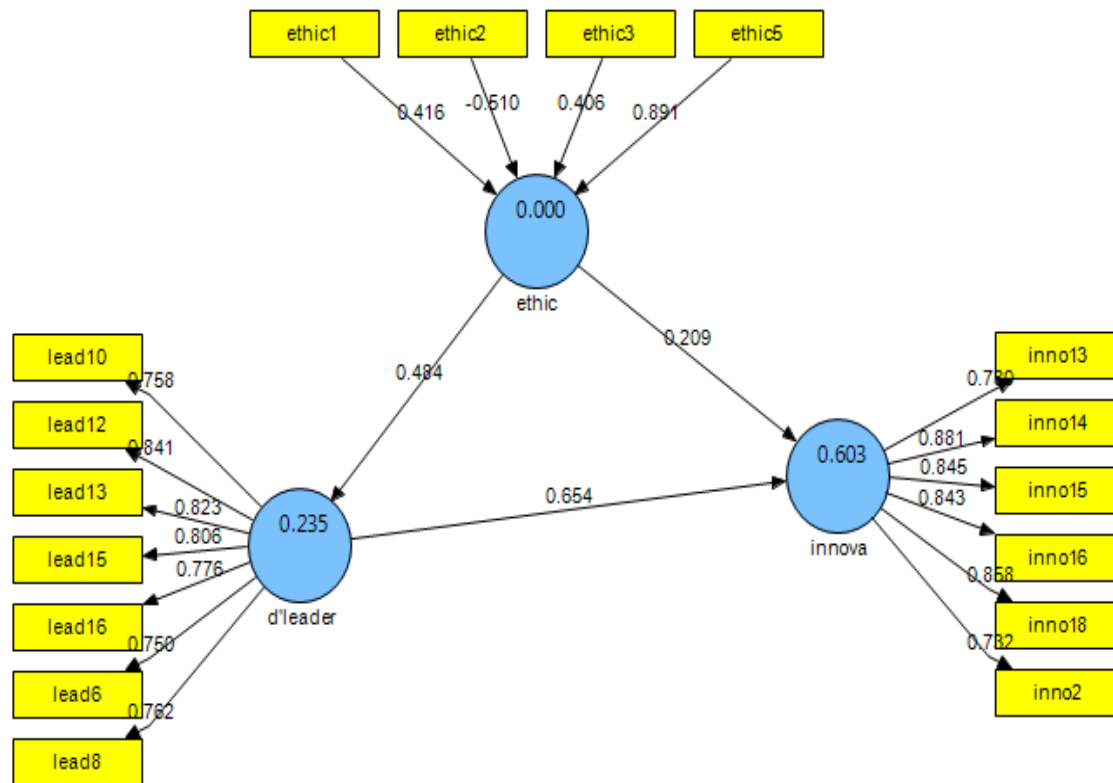
Figure 1. The Measurement and Structural Models: Work Ethics, Design Leadership, and Workplace Innovation

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

210
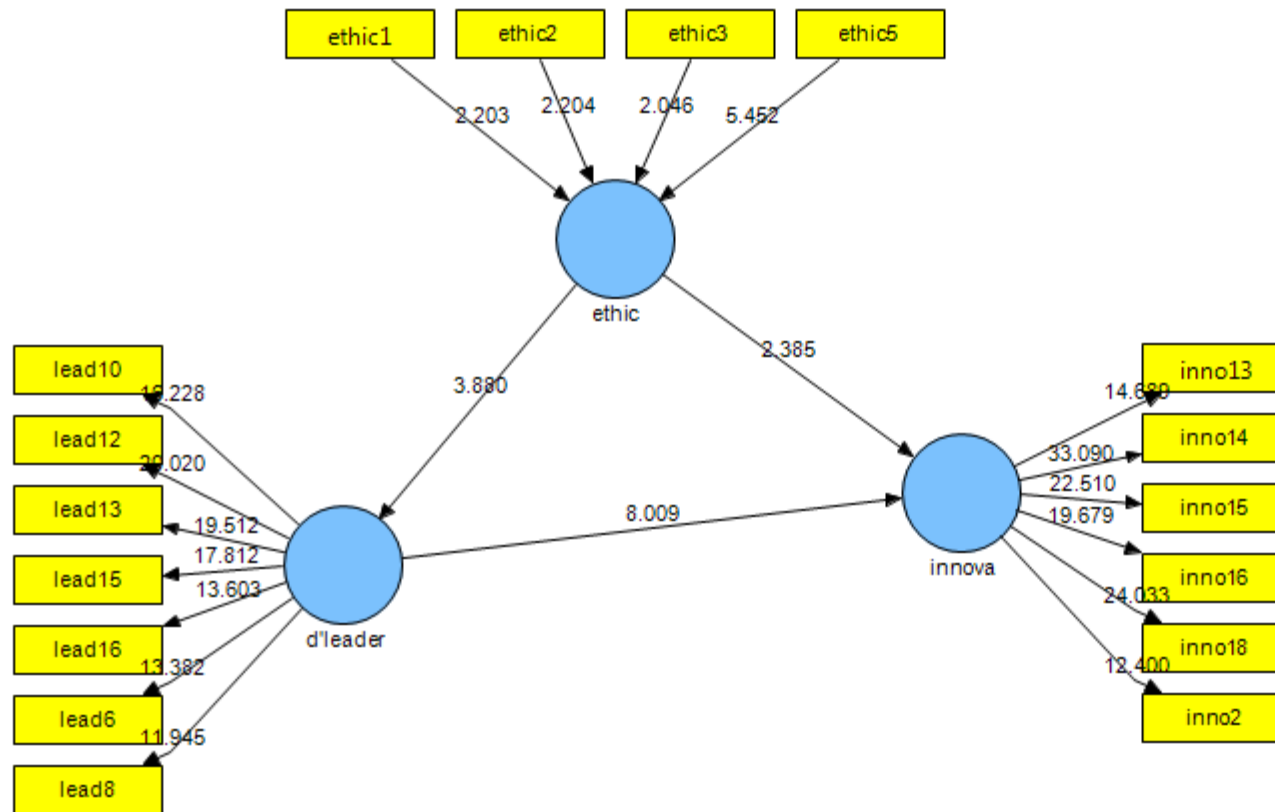
Figure 2. The Structural Model with Bootstrapping

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

211

Determining the Significance and Power of the Mediator (Design Leadership)

Following the construction of the structural model of the study, we set out to test the significance of the mediating effect (indirect effect) of design leadership on the relationship between work values ethics and workplace innovation. We noted from the model constructed that there was apparent mediating effect to the above mentioned relationship. Baron and Kenny (1986) suggest a four step approach to establishing mediation. This approach can be done through conducting several regression analyses and examining the significance of the regression coefficients at each analysis. To apply the approach to our study, Step 1 entailed the conducting a simple regression analysis with work ethics predicting workplace innovation. Step 2 was about the conducting a simple regression analysis with work ethics predicting design leadership. Step 3 concerned the conducting of a simple regression analysis with design leadership predicting workplace innovation. Finally Step 4 was about conducting a multiple regression analysis with work ethics and design leadership predicting workplace innovation. The above four regression analyses were conducted accordingly and the resultant regression models were listed as follows:

$$WI = 2.145 + 0.292WVE + E \quad\quad \text{(Step 1)}$$

$$DL = 2.799 + 0.108WVE + E \quad\quad \text{(Step 2)}$$

$$WI = 0.441 + 0.832DL + E \quad\quad \text{(Step 3)}$$

$$WI = -0.05 + 0.165 WVE + 0.836DL + E \quad\quad \text{(Step 4)}$$

Where WI=Workplace Innovation; WVE=Work Value Ethics; DL=Design Leadership; E = Epsilon

It was found that the path coefficients for Step 1 and Step 3 were significant at p=012 and p=0.000. The path coefficient for Step 2, however, was not significant (p=0.269). It is not always true that if one or more of these coefficients are not significant, mediation is not possible or likely (Mackinnon, Fairchild & Fritz, 2007). The multiple regression analysis in Step 4 yielded significant values for both WVE and DL with p=0.037 and p=0.000 respectively. This appears to indicate the presence of partial mediating effect of design leadership on the relationship between work value ethics and workplace innovation.

We decided to use another approach to establish the mediating effect of design leadership by using the Sobel Test. The Sobel Test comprises two formula:

$$S_{\beta a \beta b} = \sqrt{\beta_a^2 S_a^2 + \beta_b^2 S_b^2 - S_a^2 S_b^2} \quad \text{(Formula 1)}$$

$$t = \beta_a \beta_b / S_{\beta a \beta b} \quad \text{(Formula 2)}$$

$$S_{\beta a \beta b} = \sqrt{(0.292)^2 (0.114)^2 + (0.842)^2 (0.094)^2 - (0.114)^2 (0.094)^2}$$

$$= \sqrt{(0.08526)(0.012996) + (0.69222)(0.008836) - (0.01299)(0.00884)}$$

$$= \sqrt{(0.001108) + (0.006116) - (0.0001148)}$$

$$= \sqrt{(0.0071092)} = 0.08432$$

$$t = (0.292)(0.832)/0.08432$$

$$= 2.88 > 1.96 - \text{significant \#}$$

The conclusion was a significant mediating pathway was present from work value ethics (WVE) through design leadership (DL) to workplace innovation (WI).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

212

To determine the power of the mediation, we need to calculate f^2.

$$f^2 = R^2{}_{included} - R^2{}_{excluded} / 1 - R^2{}_{included}$$

$$= (0.6033) - (0.2873) / 1 - (0.6033)$$

$$= (0.3160) / (0.3967)$$

$$= 0.7966 \#$$

Chin (1988b) stated that the effect size f^2 of PLS constructs should be small ($f^2 = 0.02$), medium (($f^2 = 0.15$), and large (($f^2 = 0.35$). Since our $f^2 = 0.7966$ which is large than 0.35, it can be concluded that the effect size of design leadership on the relationship of work ethics and workplace innovation is large and significant.

From here, we proceeded to calculate the indirect effect of design leadership on the work ethics-workplace innovation relationship. We followed Judd and Kenny's (1981) suggestion and computed the difference between two regression coefficients. To do that, two regressions are required. The approach involves subtracting the partial regression coefficient obtained in Model 1, B_1 from the simple regression coefficient obtained from Model 2, B. The indirect effect is the difference between these two coefficients.

WI = -0.05 + 0.165 WVE + 0.836DL + E (Model 1)

WI = 2.145 + 0.292WVE + E (Model 2)

Indirect effect $= B - B_1$

$$= 0.292 - 0.165$$

$$= 0.127 \#$$

Conclusion

Our research objectives are two-fold. On one side, we attempt to examine the relationships between three constructs, namely work value ethics, design leadership, and workplace innovation. On the other side, we attempt to determine and establish the mediating effect of design leadership on the relationship between work value ethics and workplace innovation.

We have successfully constructed the measurement and structural models involving the independent variable (work value ethics), the mediator (design leadership), and the dependent variable (workplace innovation). We could prove that the models so constructed have construct validity. This suggests that the theories underpinning the models are sound.

As far as the mediator is concerned, we are able to demonstrate that design leadership has significant partial mediating effect on the relationship between work value ethics and workplace innovation. The mediating effect or indirect effect is strong ($f^2 = 0.7966$ which is more than 0.35). In addition, we managed to determine that the indirect effect amounted to 0.127.

As the purpose of this paper is to report the preliminary results and findings of the survey from just a particular location, we do not intend to deal with the details and discuss the implications of the results. This is because the results and findings may become redundant as more responses and data are collected from the other areas. We therefore await more information and data to be collected and analyzed before dwelling on detailed discussions of the constructed models and examining the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

213

implications of the mediating effect of the mediator. All in all, we are satisfied with the results so far and look forward to new analyses of the incoming data. Until then, we appeal for your patience.

References

Design Management Institute, (2006). The 10th European International Design Management Conference, 29-31 March, 2006, Amsterdam, The Netherlands.

Hofstede, G. (1984). *Culture's consequences: International differences in work-related values*, Abridged edition, Beverly Hill, Sage Publications.

Ishikawa, J. (2012). Shared leadership in R&D teams: Evidence from Japan. In N. Muenjohn (ed.), *Organizational leadership: Concepts, cases and research*, Cengage Learning Australia, Melbourne, pp. 1-26.

Judd, C. M. & Kenny, D. A. (1981). Process analysis: Estimating mediation in treatment evaluations. *Evaluation Review*, 5(5), 602-619.

MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, 5(8), 593-614.

McMurray, A., & Scott, D. (2012). Work values ethic, GNP per capita and country of birth relationships. *Journal of Business Ethics.*

Muenjohn, N., (ed.), (2012). Organizational Leadership: Concepts, Cases and Research. Cengage Learning Australia, Australia ISBN:9780170188173.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

214

Determinants of the Proliferation of E-learning in Malaysia

Wong Lai Soon, Bobby Chai Boon Hui, Premkumar a/l Nadarajan,
Phan Yi Xiong

University Tunku Abdul Rahman, Malaysia, lswong@utar.edu.my

Abstract

This study determines factors that influenced students' acceptance towards electronic learning (e-learning) through a descriptive quantitative research design. Theory of reasoned action and theory of planned behaviour were referred as the basis of this study. The targeted respondents are the students of Open University Malaysia (OUM) in Penang. As a conclusion, this study disclosed that perceived usefulness, perceived ease of use and self-efficacy has positive relationship with student acceptance of e-learning. The study contributes to the further understanding of students' attitude toward e-learning and also to the proliferation of e-learning.

Keywords: E-learning, perceived usefulness, perceived ease of use, self-efficacy, attitude

Introduction

As a sustainable and viable role model of civilized country, education plays a crucial role in the community. Education can be defined as the process of receiving and giving systematic order that ordinarily occurs in schools, universities or colleges (Oxford Dictionaries). It is a pertinent foundation for a person in determining their future as well as the monetary cash flow of a country. The learning process begins once the engagement into the education process successfully takes place. Learning is a process that begins with the initial stages of infant until one is of old age. It can be said to be an enhancement to gain knowledge, skills and attitude. Generally, learning is a process of change in attitude through practicing, being taught as well as exposure to all kind of experiences; albeit being a part of education too. Electronic learning or e-learning can be defined as services provided by the e-learning system for students to access into the academic resources such as examination or assessment questions, student's assignments, announcements and so on and so forth. (Zamzuri, Manaf, Ahmad & Yunus, 2011). E-learning involves a great variety of electronic equipment such as smartphone, computer, laptop, tablet and more. These devices deliver a broad array of training, educational or learning material to the users (Derek Stockley, 2003).

The perception and attitude towards e-learning may seems to have suffered some setbacks due to some traditional learning methods. In the past few decades, classroom learning was widely used in the education industry with a direct interaction between lecturers and students. These traditional learning methods are arguably old-fashioned and outdated (Van Raaij & Schepers, 2008). According to Hayashi, Chen, Ryan and Wu, (2004); Laurillard, (1993); Leem & Lim, (2007); Link & Marz, (2006), the development of e-learning is growing very slowly into the main stream and educators tend to focus more on the classroom teaching and learning system (as cited in Omidian, 2012)

Quite a number of the students are still refuse to adopt the e-learning system as a viable teaching method. For instances, the European countries are still relying very much on the traditional method of learning. Either from the perspective of student or universities, they submit that the traditional method is a more desired model for studying (Kandzia, 2003).The failure to discover the importance of e-learning is a vital issue that causes the continuation of traditional method. It was a further claimed that e-learning is an uninspiring method which educates the student through online knowledge dissemination and lecture note

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

215

(Preece, 2000). Therefore, too make e-learning process successful, the obstacles of e-learning should be resolved by discovering it first.

According to Govindasamy (2001), many higher education institutions (HEIs) are adopting e-learning as their main platform on solving learning and performance problems. Yet, they claimed that it is essential to have precise analysis for the underlying pedagogy on how learning takes place through online systems.The research also shown that most of the universities have set up e-learning system to encourage student to learn by using online learning content. However, there are several barriers against higher education systems from implementing it. For instance, most of the universities failed to achieve its e-learning strategies which including delivery, effectiveness, and acceptance of the courses (Park, 2009). Thus, it is essential to conduct research to understand students' perception, attitude, and intention towards using e-learning.

Theoretical Review

This section discusses mainly on two relevant theories with the subject of study, namely the Theory of Reasoned Action and the Theory of Planned Behavior, it is followed by discussion on the TAM model. From the discussion, a model for the study was determined and it is termed Behavioral Intention towards E-Learning Model as shown in figure 4. A thorough conceptual review followed suit by reviewing on the constructs of the study, namely subjective norm, perceived usefulness (PU), perceived ease of use, (PEU), self-efficacy, attitude towards behaviour, behavioural intention and actual behaviour.

Theory of Reasoned Action (TRA)

Theory of reasoned action (TRA) is an expectancy value model with emphasis on attitudes, subjective norms, intentions, and behaviors directed to a specific focus (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Expectancy-value models provide a framework for understanding the relationship between a person's attitude and their underlying belief. In this theory, outcome expectancy defined as the belief that a given behaviour will lead or not lead to a given outcome, whereas outcome value determined the person's evaluation or subjective value placed on that outcome (Ajzen & Fishbein, 1980; Eagly & Chaiken, 1993; McGuire, 1985).

According to theory of reasoned action (TRA), behavioral intention is the best single predictor of a person's behavior. It is a function of attitude toward performing the behavior and subjective norm is the construct that expresses the person's perception of whether relevant others think one should or should not perform the particular behaviour (Ajzen & Fishbein, 1980). Theory of reasoned action (TRA) is an appropriate reference theory when the behavior being studied is under the volitional control of the individual (Ajzen, 1988; Ajzen & Fishbein, 1980).

Consequently, the proximate determinants of the intent to adopt a given behavior are the individual's personal attitude toward performing the behavior in question, and the influence of social factors toward the performance of the behavior. The theory proposed that overt behavior is a function of a person's intention which depends on that person's attitude toward his or her behaviour and subjective norms. Besides that, there are some other findings of this theory. One of the findings is that the attitudes and subjective norms mediate the effects of other variables on intentions and that intentions mediate the impact of attitudes and subjective norms on behavior. Basically, the theory of reasoned action makes an expectation that behaviour is based on deliberative processes and the theory posits that attitudes and subjective norms are sufficient to predict intentions.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

216
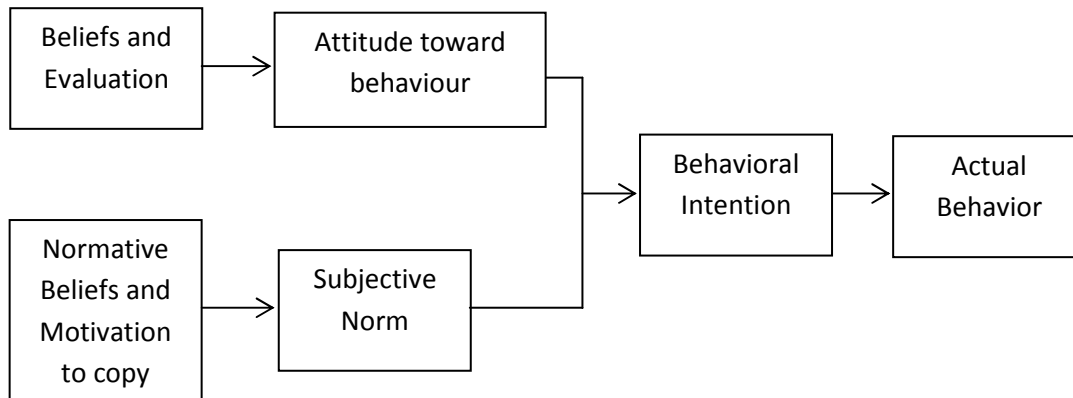
Figure 1.0: Theory of Reasoned Action (TRA)

Theory of Planned Behaviour

Theory of Planned Behaviour (TPB) is the extension of Theory of Reasoned Action (TRA) proposed by Ajzen and Madden which introduced the concept of perceived behavioral control. This theory incorporates perceived behavioral control that has both direct and indirect effect through behavioral intentions and behavior respectively (Fishbein and Ajzens, 1975). Besides that, Ajzen observed that the theory of reasoned action was particularly valuable when describing behaviors that were totally under volitional control. On the other hand, theory of planned behavior (TPB) has included a belief-based structure formed by the perceived presence or absence of required resources and opportunities, the anticipated obstacles or impediments and by the perceived power of a particular control factor to facilitate or inhibit performance of the behavior.

In the theory of planned behaviour (TPB), perceived behavioural control was placed within a more general framework of the relations among belief, attitude, intention and behavior. It is an individual's perception of control over behavioural performance in the extreme of internal and external barriers. It is also considered as an additional predictor of the behaviour. Perceived behavioral control plays an essential character in the theory of planned behavior (TPB). In fact, both theory of planned behavior and theory of reasoned action differ from each other with the addition of perceived behavioral control. Perceived behavioral control together with behavioral intention can be used directly to predict behavioral achievement.

In the perspective of the Theory of planned behavior (TPB), a person may has a favorable or unfavorable evaluation of the behavior in question based on the subjective norm which is the perceived social pressure to perform or not to perform the behavior. After that, the degree of perceived behavioral control refers to the perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacles.

Theory of planned behavior (TPB) allocates attitudes, subjective norms, and perceived behavioral control to an underlying foundation of belief about the behavior. Based on a study by Ajzen and Madden (1986), perceived behavioral control is depends on the belief that whether there are obstacles to the behavior and the perception that these obstacles will prevent the behavior from occurring. TPB is appropriate for use when the behavior being studied may not be completely under the control of the individual for a variety of reasons. As a conclusion, Theory of Planned Behaviour (TPB) proposes that a positive attitude, subjective norm and perceptions of behavioural control will lead to a stronger intention to perform the behaviour (Ajzen, 1988, 1989).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

217
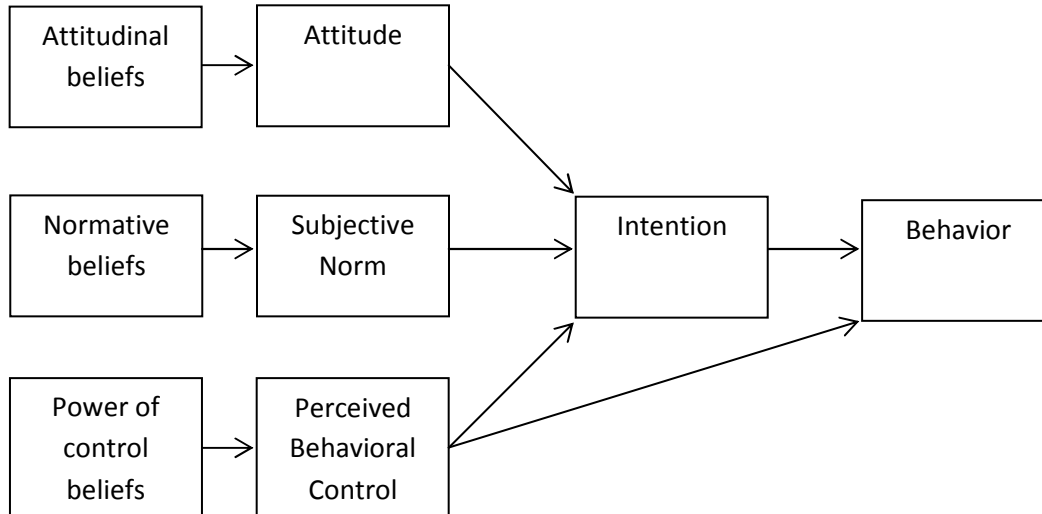
Figure 2.0: Theory of Planned Behavior (TPB)

Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) was introduced by Davis in 1989. The origin of the Technology Acceptance Model (TAM) is the Theory of Reasoned Action (TRA) in psychosomatic research (Fishbein & Ajzen, 1975). The purpose of the TAM model was to investigate factors that affecting information technology's acceptance. It is one of the prominent models related to information technology research. According to Davis, Technology Acceptance Model (TAM) can be defined as a theoretical concept that used to determine the user's acceptance towards a certain information technology system (as cited in Oh Jongchul & Yoon Sung-Joon, 2014).

Technology Acceptance Model (TAM) aim to provide a basis for discovering the external factors that influenced internal beliefs, attitudes and intentions of technology user. According to Pituch & Lee (2006), research model shows that three system characteristics including system functionality, interactivity and response and two user characteristics which are self-efficacy and internet experience are the external variables that have serious impact on the belief construct. The TAM model shows that perceived ease of use (PEU) influences perceived usefulness (PU) directly and both these two constructs have impact on the intention to use a technology (Maslim Masrom, 2007). Perceived usefulness (PU) is a belief whereby an individual believe that use of technology will enhance his/her performance while perceived ease of use (PEU) is a belief that the system will be effortless to be used (Maslim et al, 2007). Consequently, it will affect the attitude and behavioral intention of using e-learning that leads to the usage of an actual e-learning system (Davis et al. 1986).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

218
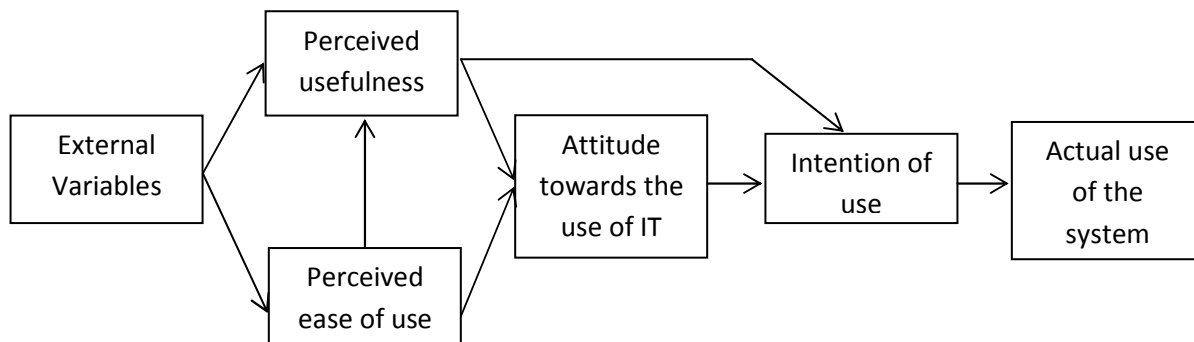
Figure 3.0: Technology Acceptance Model (TAM)

Source: Davis et al. (1989)

The TRA (Ajzen & Fishbein, 1980) and the TPB (Ajzen, 1988) have been used widely in past research to explain and predict behavior. The TPB is an extension of the TRA, which has incorporated the construct of perceived behavioral control into TRA model (Ajzen, 1988). A critical review of research using the TRA and TPB was completed to determine the usefulness of the model and constructs in explaining technology adoption behavior.

The TRA and TPB provided a theoretical structure for examining behavior in a number of settings and populations. Primary goals for the two models are to understand and therefore predict, so to speak, social behaviors. The constructs from the two theories are behavioral beliefs, normative beliefs, attitude, subjective norm, intention, and behavior. The models suggested the relationships between a person's beliefs, evaluation of those beliefs, and the influence of social pressure.

Large number of studies based on the theory of reasoned action and theory of planned behavior have clearly defined the utility of the distinctions by showing different constructs standing in relation to intentions and behavior. It is clear that the theory of planned behavior provides a useful conceptual framework for dealing with the complexities of human social behavior. The theory incorporates some of the central concepts in the social and behavior sciences and it defines these concepts in a way that permits prediction and understanding of particular behaviors in specify contexts. It was found that attitudes toward the behavior, subjective norms with respect to the behavior, and perceived control over the behavior usually predict behavioral intentions with a high degree of accuracy.

Conceptual Framework

From the theoretical review, a conceptual model has been formulated as shown in figure 4.0. In this model, it is hypothesized that subjective norm influence perceived usefulness, perceived east of use, self-efficacy and actual behavior directly. It is also hypothesized to have indirect relationships with attitude towards behavior and behavioral intention. It was also hypothesized that perceived usefulness has direct relationship with attitude towards behavior and indirect relationships with behavioral intention which leads to actual behavior. Whereas perceived ease of use was hypothesized to have direct relationships with perceived usefulness and attitude towards behavior and have indirect relationship with behavioral intention. Besides that, self-efficacy was hypothesized to have direct relationship with attitude towards behavior and indirect relationship with behavioral intention. Finally attitude towards behavior was hypothesized to have direct relationship with behavioral intention.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

219
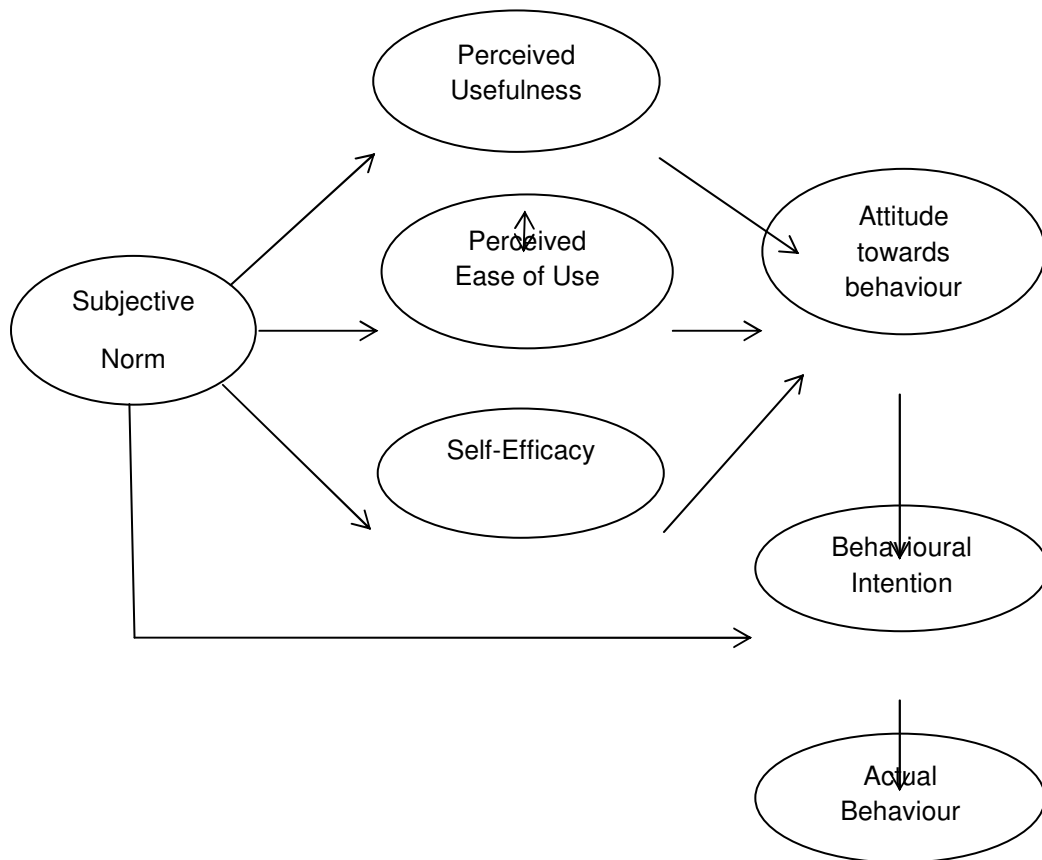
Figure 4.0: Behavioural Intention towards E-Learning Model

Conceptual Review

Subjective Norm

Subjective norm can be defined as a person's perceptions that consider the importance of most people think he should or should not perform the behavior (Schepers, J., & Wetzels, M, 2007). According to Fishbein and Ajzen, Technology Acceptance Model (TAM) was originated from the theory of reasoned action (TRA) in which it emphasized that both attitude towards an action and subjective norm have an impact on behavioral intention. Consequently, it affects how other people perform the action (Schepers, J., & Wetzels, M, 2007). Besides that, Venkatesh and Davis (2000) also hypothesized that subjective norm influenced both perceived usefulness and intention to use and they have large impact on behavioral intention. As a general rule, Davis et al, 1989 stated that the more favorable the attitude and subjective norm, the greater the perceived control, the stronger should be the person's intention to perform the behavior in question (as cited in Ajzen, I, 2002). The principle for subjective norm is that individual may desire to perform a behavior even if they are not satisfactorily disposed to that behavior if more than one elements support that behavior (Liao & Lichtensteniny, 2006). There is a linkage for the whole model such as subjective norm affect perceived ease of use which leads to attitude towards behavior and finally affect the behavioral intention and actual behavior.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

220

Perceived Usefulness (PU)

According to Davis (as cited in Ong & Lai, 2006), perceived usefulness is an individual believes that job performance will be strengthen when technology is being used. Ma, Andersson & Streith said that evidence from teacher shown performance enhancement which include managing students in smoother ways to achieve learning goals and conducting management duties (as cited in Luan & Teo, 2009). PU found to be the greatest predictor because the easier students feel, the more useful they perceive towards e-learning. Thus, it turns to positive effect on their acceptance to use e-learning (Lee, Yoong & Lee, 2009). Besides that, King & He (2006) also specifies that perceived usefulness is clearly a variable to be chosen as a predictive variable. According to Chiu, Hsu, Sun, Lin and Sun, perceived usability, quality and value are the belief components of usefulness (as cited in Sørebø, Halvari, Gulli & Kristiansen, 2009). However, Koohang; Shashanni & Khalili (as cited in Ong & Lai, 2006) have examined that different gender would have different perception on the degree of usefulness. It was found that female college students evaluated computers less useful than male students. While, Massey, Montoya-Weiss and Brown's study (as cited in Straub, 2009) suggested that individual beliefs about perceived usefulness may be varied in groups within a population. According to Pituch & Lee (as cited in Lee et al., 2009) examined that all three characteristics system including functionality, response and interactivity had affected its usefulness and motive to accept e-learning. Starting with functionality, it means that the flexibility of accessing to instructional materials including video, audio and text. While, response is efficiency of e-learning system in answering student's questions which should be fast, consistent and reasonable. Lastly, interactivity means that the facilities that are available for the interaction in the system for students which include email, chat room and etc.

Perceived Ease of Use (PEU)

Perceived ease of use refers to the attitude of user towards online learning. Davis (as cited in Park, 2009) shown that e-learning would be effortless to students since they do not have to spend much effort on using it. According to Bagozzi and Warshaw (as cited in Chiu, Hsu, Sun, Lin & Sun., 2005) users would have a positive attitude on using the computer systems for learning as they are quick and easy to learn. Oliver's (as cited in Bhattacherjee, & Premkumar, 2004) emphasized that users that spending much time and effort in learning could result in higher effectiveness that increases their performance. However, some researchers have argued that some of the users may have to put in more effort to learn the technology before they could use it (Erik & Raaij, 2008). According to Azjen & fishbein (as cited in Masrom, 2007) the intention of user can determined how easy the online learning is. According to Martins and Kellermanns (as cited in Van, E & Schepers, 2008) technology acceptance is relate to the perception of user on how easy it is to be used. However, Davis, Pearlson and Saunders had used TAM (Technologic Acceptance Model) as a determinant of the peoples' ability to control the system or use it (Hossein Mahdizadeh, 2008). According to Gao, Ma & Liu, McKinnon and Igonor (as cited in Shroff, Deneen and Ng, 2011) TAM defined the factor of perceive ease of use based on the nature or the system characteristics such as the whole system design and function of the system. It is related to the user's ability, skill, and attitude and is dependent on the system.

Self-efficacy

Self-efficacy is defined as students' belief on their ability to master the academic activities and perform a task (Bandura, 1993). When students perceive that the progress toward the goal is satisfactory, they will have higher self-efficacy and that could motivate them to improve their skill to achieve the goal (Schunk, 1990). Self-efficacy can be determined through the user intention level, the insistence when facing problem or obstacle, the ability in self-regulation such as emotion and behaviour, and the level of failure acceptance by not easily giving up (Bandura, 1982). More experience, skill, knowledge, higher internal and external cognition can aids a person on course executing to scope the scheme (Bandura, 1982). From the perspective of Bandura (as cited in Bandura, 1993), a high cognitive person is the person that possess higher ability in processing information. The cognition level has an impact on reducing user e-learning anxiety as well as increasing ease of use perception (Saadé & Kira, 2009). As defined by Davis, self-efficacy is identical to perceived ease of use because it was related on judgement on how well one

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

221

can process academic activities (Venkatesh & Davis, 1996). Self-efficacy can be enhanced through verbal persuasion and vicarious information to reduce personal anxiety and it could improve a person's performance (Saadé & Kira, 2009). Previous research shown that self-efficacy will become lower if there was a high anxiety level in using computer (Saadé & Kira, 2009). The anxiety level could be reduced by building in help assistance such as build in feedback to increase a user satisfaction by interacting with user and by correcting their mistakes (Lee, Cheung & Chen, 2005). A student with high self-efficacy will have significant better result compared to those who have low self-efficacy (Sun, Thai, Finger Chen and Yeh, 2008).

Attitude Towards Behaviour

Attitude towards behavior can be defined as the evaluation on the effectiveness when an individual is using a particular system in his/her job (Davis, F. D, 1993). According to Davis et al. (1989), attitude towards using a technology is included in the technology acceptance model. This is because of partial mediation of the impact of beliefs on intention by attitude, a direct link between perceived usefulness, attitude towards behavior and behavioral intention (as cited in Venkatesh, V, 2000). The inclusion of attitude provides a clear understanding on the relationship between perceived ease of use and perceived usefulness on the key dependent variable of interest. Technology Acceptance Model (TAM) posits that actual behavior is affected by behavioral intention which is then affected by attitudes towards behaviour (Gefen, D., & Straub, D. W, 1997). In the original TAM, perceived usefulness is hypothesized to be an antecedent to attitude toward using IT, and intention to use IT (Hong, S., Thong, J. Y., & Tam, K. Y, 2006). Furthermore, attitude toward bahavior is directly affected by the perceived usefulness and perceived ease of use.

Behavioral Intention

Behavioral intention has direct relationships between subjective norm and attitude toward behavior in TRA and TPB model. Subjective norm influenced intention directly or indirectly through perceived usefulness, perceived ease of use and self-efficacy (Venkatesh, V., & Davis, F. D, 2000). Besides that, it is an extensive empirical confirmation that perceived ease of use has significantly relationship with behavioral intention either directly or indirectly via its impact on perceived usefulness (Davis et al. 1989 & Venkatesh, 1999). Perceived usefulness is a strong determinant of intention to use, and perceived ease of use is a significant secondary determinant. According to Bandura, social cognitive theory dictates that perceived ease of use and perceived usefulness are the important key predictors of the behavioral intention (as cited in Venkatesh, V., & Davis, F. D, 2000).

Actual Behavior

Actual behavior is a measurement of the number of system used and volume of system consumed by the e-learning users (Malhotra, Y., & Galletta, D. F, 1999 January). According to Engel, Blackwell and Miniard (1995), subjective norm has possible impact on the construct of perceived usefulness, perceived ease of use and self-efficacy which in turn influence user's attitude towards behavior, behavioral intention and consequently their actual behavior (as cited in Loh, 2014). The attitude/intention theories from Doll and Ajzen 1992; Fazio and Zanna 1978a, 1978b, 1981 also support this view. Moreover, according to Cambre and Cook (1985), the actual behavioral experience shapes beliefs such as perceived usefulness and perceived ease of use.

References

Afshari, M., Kenayathulla, H. B., Idris, A. R., Ibrahim, M. S., & Razak, A. Z. A. (2013). Factors affecting the effective implementation of e-learning in educational institutions. *Turkish Online Journal of Science & Technology*, *3*(3).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

222

Ajzen, I. (2002). Constructing a TPB questionnaire: Conceptual and methodological considerations.

Ajzen, I. (1985). *From intentions to actions: A theory of planned behavior* (pp. 11-39). Springer Berlin Heidelberg.

Ajzen, I. (1985). *From intentions to actions: A theory of planned behavior* (pp. 11-39). Springer Berlin Heidelberg.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American psychologist*, *37*(2), 122.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual review of psychology*, *52*(1), 1-26.

Bhattacherjee, A., & Premkumar, G. (2004). Understanding changes in belief and attitude toward information technology usage: a theoretical model and longitudinal test. *MIS quarterly*, 229-254.

Blue, C. L. (1995). The predictive capacity of the theory of reasoned action and the theory of planned behavior in exercise research: An integrated literature review. *Research in Nursing & Health*, *18*(2), 105-121.

Chiu, C. M., Hsu, M. H., Sun, S. Y., Lin, T. C., & Sun, P. C. (2005). Usability, quality, value and e-learning continuance decisions. *Computers & Education*,*45*(4), 399-416.

Concannon, F., Flynn, A., & Campbell, M. (2005). What campus-based students think about the quality and benefits of e-learning. *British Journal of Educational Technology*, *36*(3), 501-512.

Davis, F. D. (1993). User acceptance of information technology: system characteristics, user perceptions and behavioral impacts. *International journal of man-machine studies*, *38*(3), 475-487.

de Vries, H., Dijkstra, M., & Kuhlman, P. (1988). Self-efficacy: the third factor besides attitude and subjective norm as a predictor of behavioural intentions.*Health education research*, *3*(3), 273-282.

Gefen, D., & Straub, D. W. (1997). Gender differences in the perception and use of e-mail: An extension to the technology acceptance model. *MIS quarterly*, 389-400.

Govindasamy, T. (2001). Successful implementation of e-learning: Pedagogical considerations. *The Internet and Higher Education*, *4*(3), 287-299.

Lee, B. C., Yoon, J. O., & Lee, I. (2009). Learners' acceptance of e-learning in South Korea: Theories and results. *Computers & Education*, *53*(4), 1320-1329.

Lee, M. K., Cheung, C. M., & Chen, Z. (2005). Acceptance of Internet-based learning medium: the role of extrinsic and intrinsic motivation. *Information & management*, *42*(8), 1095-1104.

Liu, S. H., Liao, H. L., & Peng, C. J. (2005). Applying the technology acceptance model and flow theory to online e-learning users' acceptance behavior. *E-learning*, *4*(H6), H8.

Malhotra, Y., & Galletta, D. F. (1999, January). Extending the technology acceptance model to account for social influence: theoretical bases and empirical validation. In *Systems Sciences, 1999. HICSS-32. Proceedings of the 32nd Annual Hawaii International Conference on* (pp. 14-pp). IEEE.

Mahdizadeh, H., Biemans, H., & Mulder, M. (2008). Determining factors of the use of e-learning environments by university teachers. *Computers & Education*,*51*(1), 142-154.

Masrom, M. (2007). Technology acceptance model and e-learning.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

223

Monahan, T., McArdle, G., & Bertolotto, M. (2008). Virtual reality for collaborative e-learning. *Computers & Education*, *50*(4), 1339-1353.

OMIDIAN, F. DEVELOPMENT AN INSTRUMENT TO MEASURE UNIVERSITY STUDENTS'ATTITUDE TOWARDS E-LEARNING. *E-learning*, *4*(3.87), 16.

Ong, C. S., & Lai, J. Y. (2006). Gender differences in perceptions and relationships among dominants of e-learning acceptance. *Computers in Human Behavior*, *22*(5), 816-829.

Park, S. Y. (2009). An Analysis of the Technology Acceptance Model in Understanding University Students' Behavioral Intention to Use e-Learning.*Educational Technology & Society*, *12*(3), 150-162.

Pituch, K. A., & Lee, Y. K. (2006). The influence of system characteristics on e-learning use. *Computers & Education*, *47*(2), 222-244.

Preece, J., Maloney-Krichmar, D., & Abras, C. (2003). History of emergence of online communities. *Encyclopedia of Community. Berkshire Publishing Group, Sage*, 1-11.

Saadé, R., & Kira, D. (2009). Computer anxiety in e-learning: The effect of computer self-efficacy. *Journal of Information Technology Education: Research*,*8*(1), 177-191.

Sánchez, R. A., & Hueros, A. D. (2010). Motivational factors that influence the acceptance of Moodle using TAM. *Computers in human behavior*, *26*(6), 1632-1640.

Schepers, J., & Wetzels, M. (2007). A meta-analysis of the technology acceptance model: Investigating subjective norm and moderation effects.*Information & Management*, *44*(1), 90-103.

Schunk, D. H. (1990). Goal setting and self-efficacy during self-regulated learning. *Educational psychologist*, *25*(1), 71-86.

Shroff, R. H., Deneen, C. D., & Ng, E. M. (2011). Analysis of the technology acceptance model in examining students' behavioural intention to use an e-portfolio system. *Australasian Journal of Educational Technology*, *27*(4), 600-618.

Van Raaij, E. M., & Schepers, J. J. (2008). The acceptance and use of a virtual learning environment in China. *Computers & Education*, *50*(3), 838-852.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: four longitudinal field studies. *Management science*, *46*(2), 186-204.

Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model.*Information systems research*, *11*(4), 342-365.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: four longitudinal field studies. *Management science*, *46*(2), 186-204.

Zamzuri, Z. F., Manaf, M., Yunus, Y., & Ahmad, A. (2013). Student Perception on Security Requirement of e-Learning Services. *Procedia-Social and Behavioral Sciences*, *90*, 923-930.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

224

Social Influence - The Determinant of Repurchase Intention of Japanese Automobiles

Wong Lai Soon[a], Prof. Dr. Nor Aishah Bt. Buang[b], Bobby Chai Boon Hui[a], Yee Ann Mie[a], Teo Yit Hua[a], Poon Wan Yee[a], Chan Kian Xing[a]

[a]University Tunku Abdul Rahman, Malaysia, lswong@utar.edu.my
[b]University Kebangsaan Malaysia, noraishah1962@gmail.com

Abstract

Product recall has been a major problem in the automobile industry since the past few years, especially when the industry players are facing higher intense global competition as compared to the previous time. This problem is especially acute for automobile makers like Toyota and Honda which have some major recalls of automobiles in the recent years. This paper shared some insights about the factors that contribute to the repurchase decision of the two major Japanese automobile brands in Malaysia. The main construct of the research is the social influence that has not been well covered in the past for this industry. From the structural equation model that been formulated, it was found that the construct of social influence contributes to the forming of automobile buyers' perception which in turn determining their repurchase interest. This research is important as it has new finding and can serve as a reference for the academics and industry.

Keywords: Social Influence, Repurchase Intention, Automobile

Introduction

Automotive industry in Malaysia is growing intensively and it has a strong impact on the economic growth of the country. The numbers of passenger and commercial vehicles have grown rapidly in between year 1980 and 2013. At the same time, the number of automobile brands that exist in the market also increased from 29 in year 2007 to 48 in year 2013 (MAA report, 2007, MAA report, 2013). Unwittingly, customer requirements on the service and product quality also been increased. Furthermore with the recent price competition that happening in the market, i.e. the automobile makers are selling cars with discounted price and with reduced interest rate (as seen in the advertisements of all major newspaper in August, 2014). With the increased competition in local and international market as well as huge demand of cars from around the world, automobile companies may find it difficult to control the product and service quality of their cars. Product recall activities have becoming more often in automobile industry when they detected defective product which may cause user in danger [1]. Automobile company which involved in product recall may face brand equity erosion, tarnished reputation and market share lost. The recall issue is threatening the survival of automobile companies include famous brand such as Toyota and Honda. It is therefore very important for automobile companies to understand the needs and wants of their customers in order to keep them and develop customer satisfaction to maintain the long-term relationship. This understanding could be obtained by doing a relevant research which integrates existing consumer behavioral knowledge on the existing automobile users.

The objective of this study is to develop a comprehensive model to explain the driving factors that drive up the satisfaction of automobile buyers and the interaction effects in between those factors. It is important to search for the constructs that are important in driving customer satisfaction then estimate their direct and indirect impacts empirically with SEM technique. There are one endogenous construct and four exogenous constructs in this model. The endogenous construct is customer satisfaction whereas the other four exogenous construct are social influence, perceived service quality, perceived product

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

225

quality and perceived price fairness; the social influence serve as the antecedent of all the constructs. Apart from direct effect, inter-relationships among the constructs were found through this study.

The subsequent sections laid out the theoretical review, research framework formulation and conceptual reviews on the variables of interest. Next is discussion on the methodology used which includes research design, sampling techniques, data collection method, data analyses and result presentation. This paper ends with discussion on the research findings, limitations and future research recommendation.

Literature Review

This section starts with theoretical review, followed by research model formulation and ended with conceptual review and hypotheses development.

Theoretical Review

Jang & Namkung (2009) examine the effect of the service quality, product quality, atmosphere as well as emotion toward the behavioral intention of consumers. There are various types of atmospheric elements in a service setting which include visual such as design and color, lighting, music, space and functions. In addition, there are two dimensions that bound up with emotion which are positive and negative emotion.

Bei & Chiao (2001) measure consumer satisfaction and consumer loyalty based on several variables which include perceived price, service quality and product quality. This research is to balance perceived service quality, product quality and price into an integrated model. Besides, it is also to explore the effects of these three consumer perceptions on customer satisfaction and loyalty behavior. This study found there are relationships among customer loyalty, customer satisfaction, perceived price fairness, perceived service quality and perceived product quality.

Study of Wong, Ngerng, Chin, Khoo, Liew, and Shim (2011) measures the purchase intention of automobile users in Malaysia toward TOYOTA passenger cars. This framework consists of six constructs which are perceived service quality, perceived product quality, perceived price fairness, trust, customer satisfaction, and repurchase intention. The research project bear out that perceived product quality has direct effect on customer satisfaction and as well as indirect effect on customer purchase intention, mediated by brand trust. In addition, this finding indicates that trust and customer satisfaction are the factors that affect repurchase intention of customer. As a conclusion from the above three models, the constructs of perceived service quality, perceived product quality, perceived price fairness and customer satisfaction formed the foundation of the conceptual model to be tested.

Theory of reasoned action (TRA) is coined by Ajzen and Fishbein (as cited in Southey, 2011). This theory suggests that beliefs and social evaluation affect the attitude toward behavior of user whereas normative belief and motivation to comply affect the subjective norm of user. From there, attitude and subjective norm lead to the intention to behave and finally determine the actual behavior. The main construct of interest in this theory is the subjective norm which is a person's belief on whether the action and behavior of the social groups around him/her would affect his/her perception on his/her choice. This theory is especially useful when the behavior of the person is under the volitional control by himself/herself (Ajzen, 1988; Ajzen & Fishbein, 1980).

Ajzen (1991) added the perceived behavioral control in the later model, termed Theory of Planned Behavior (TPB), he finds that perceived behavioral control does influence behavioral intention and affect behavior. This additional construct included the external factors such as the available of resources and opportunities in order for a particular process to take place and most importantly, the perception of the individual in controlling his/her behavioral performance in conjunction with the external and internal obstacles that occurred (Southey, 2011). From the review of these two theories, the main construct of interest, i.e. the social influence has been included in the research model as the antecedent factor that influence the satisfaction of customer in choosing an automobile.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

226

Research Framework

A new research framework was formed from the above literatures and it is as depicted in Figure 1. The framework hypothesized that social influence are indirectly affect on customer satisfaction through perceived service quality (PSQ), perceived product quality (PPQ) and perceived price fairness (PPF). Whereas social influence is affecting PSQ, PPQ and PPF directly and customer satisfaction is affected directly and indirectly by PSQ, PPQ and PPF. This conceptual framework is developed to display the relationships between the exogenous constructs and the endogenous construct. The four exogenous constructs are social influence, perceived service quality, perceived product quality, and perceived price fairness and the endogenous construct is customer satisfaction.
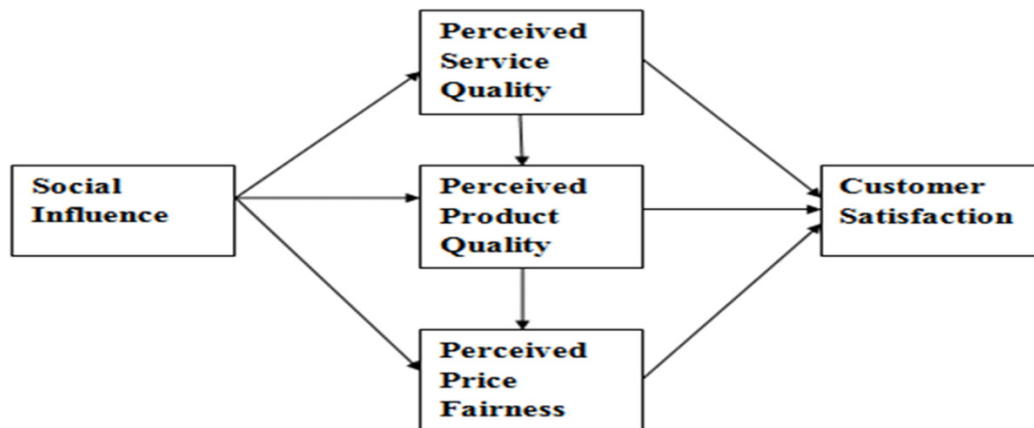
Figure 1: Research Framework

Conceptual Reviews

Below are the conceptual reviews on each of the constructs of the model. The constructs being review are customer satisfaction, social influence, perceived service quality, perceived product quality and perceived price fairness.

Customer Satisfaction

Customer satisfaction is define as a state of fulfillment which are connected to arousal and reinforcement that had been consider as core concept in the marketing literature (Srivastava and Kaul, 2014). The level of the customer satisfaction and brand awareness can be generated through social influence (Bruhn, Schoenmueller and Schafer, 2012). In addition, Okay and Akcay (2010) mention that customer's expectation and perception are used to evaluate the level of the customer satisfaction toward customer perceived service quality, perceived product quality and perceived price fairness.

Social Influence

According to Robert & Noah (2004), social influence affect people whom experience integrate pressures from social group as well as action of other people that has powerful effect on them. Many marketers have reduced their usage of traditional marketing methods due to the increased pressure of social influence on consumer buying pattern and behavior (Sethuraman, Tellis & Briesch, 2011). Therefore it is hypothesized that social influence significantly influenced customer satisfaction indirectly through PSQ, PPQ and PPF.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

227

Perceived Service Quality

Service quality is important because it is needed for creating customer satisfaction (Kabir & Carlsson, 2010). Parasuraman, Zeithaml & Berry (1985) define service quality in term of customer satisfaction when the expectation is coordinated with the perceptions toward a service. Oliver's studies (as cited in Kabir et al., 2010) argues that customer make a comparison between expectation and perceptions of the service. According to Hsin, Huery & Bi (2008) mention that customers always demand for quality guaranteed with the reason to reduce uncertainty of service. Therefore perceived service quality is hypothesized to influence customer satisfaction significantly.

Perceived Product Quality

Stone-Romero, Stone & Grewal's research (as cited in Danes and Mullikin, 2012) discovered that there are 4 dimensions in perceived product quality which consists of endurance, unique, flawlessness and appearance. . Based on past studies, perceive high quality of product helps to evoke positive emotion in customer (Jang and Namkung, 2009). Cronin, Brady & Huly; Snoj, Korda & Mumel's research (as cited in Beneke et al., 2013) prove that high perceived product quality will enhance its value which will lead to higher customer satisfaction and willingness to purchase the product. Therefore, it is hypothesized that perceived product quality does has significant influence on customer satisfaction.

Perceived Price Fairness

Kotler and Armstrong (as cited in Hanif, Hafeez & Riaz, 2010; Minh- Tuan, 2012) indicate that price refer to total amount of cash that charged for offering a goods or services. Moreover, price considers as sum of value that customers use to exchange for the benefits of using or acquiring the product or service. Bolton, Warlop & Alba's studies justified that price fairness is a judgment of a process to attain an outcome which is reasonable or acceptable (Nguyen, 2012). Therefore it is hypothesized that perceived price fairness has significant influence on customer satisfaction.

Methodology

The section below laid out the methodology used for this research which include research design, data collection method and questionnaire design, target population and pilot test, sampling techniques and the sample.

Research Design, Data Collection Method and Questionnaire Design

The data for this research was collected through survey due to this is a descriptive research and the requirement of large amount of data to perform a reliable analysis. The questionnaire is classified into two sections which is consists of thirty questions. Section A collects basic information of target respondent and section B is to measure the level of agreement and disagreement of target respondents on the perception and satisfaction toward the Toyota and Honda branded automobiles.

Target Population and Pilot Test

The target population are the residences of Kuala Lumpur by the age of 18 years old and above with driving license and are driving the passenger cars of the research. Hence, respondents are capable of providing accurate information for the research. Pilot study has been conducted on 50 respondents before main research. The objective of the pilot study was to evaluated cost, feasibility, time, reliability of the questionnaire and most suitable sample size. Researchers conduct the pilot test in the car park of one hypermarket when target respondents are parking their cars. Questionnaires were collected from the respondents immediately after they completed it (about 15 minute each).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

228

Sampling Techniques and Sample

For data collection of the main research, a two stage sampling technique, i.e. quota sampling followed by judgmental sampling technique was use to collect the data. Firstly, quota sampling technique was used to segment Kuala Lumpur into eleven (11) geographical areas based on the municipal division. The 11 areas are: Wangsa Maju, Titiwangsa, Setiawangsa, Segambut, Batu, Kepong, Bukit Bintang, Seputih, Bandar Tun Razak, Cheras and Lembah Pantai. According to Comrey and Lee (1992), at least 300 respondents in marketing research can consider as an excellence research. To get a sizeable data to conduct a reliable and valid test and taking into account the possibility of some incomplete data, a sample size of 803 has been decided (Malhotra, Birks and Wills, 2012). The 803 sets of questionnaires were equally divided into 73 sets for each of the areas. 73 sets of the questionnaire were distributed to the respondents that parking the Toyota and Honda cars in the car park of one major shopping complex in each area. Before giving the questionnaire to the respondent, judgment by the researchers were used to estimate the age level of the respondents whom are above 18 years old. Self-administered survey was used to collect the data and only 766 out of the 803 copies of the questionnaires were returned with complete data.

Data Analysis

Data collected was analysed by using descriptive statistics to determine the demographic distribution of the respondents, followed by normality test of the data as well as factor analysis and reliability test. The inferential analysis was then conducted by using structural equation modelling.

Demographic Information, Central Tendency Test and Reliability Test

The demographic data shown that majority of the participants are male (62.1%), aged 21 to 40years (60.1%). 25.6% were between 41 to 60 years old, 7.8% were less than 20 years old and 6.5% were above 61 years old. 59.7% of the respondent were married. Detail information are as shown in Table 1. The central tendency test shows that the data is normal. The reliability test using Cronbach's Alpha test shown that all constructs have high reliability with alpha value ranging from 0.780 to 0.866. The factor loading are ranging from 0.61 to 0.80 which shown high contend validity (Malhotra, Birks, & Wills, 2012).

Table 1: Mean, Standard Deviation, Factor Loadings and Reliability of the Study

Variables and Items	Description	Mean	S.D	Factor Loading	Cronbach's Alpha
Customer Satisfaction					0.788
CS 2	I believed it is a good decision to repurchase the same brand of car.	3.75	0.817	0.63	
CS 3	I am satisfied with the attitude and helpfulness of the staff of the car brand that I intend to repurchase.	3.73	0.806	0.66	
CS 4	I would recommend the car brand that I intend to repurchase to my friends and family members.	3.71	0.849	0.73	
CS 5	I always talk good about the car that I intend to repurchase.	3.75	0.840	0.66	

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

229

Social Influence					0.866
SI 1	My family and relatives influenced my perception on the service quality provided by the passenger car company	3.81	0.912	0.69	
SI 2	My friends influenced my perception on the service quality provided by the passenger car company.	3.80	0.894	0.80	
SI 6	My friends influenced my perception on the product quality of the passenger car.	3.85	0.880	0.66	
Perceived Service Quality					0.817
PSQ 1	Employees of the passenger car company always perform good quality car services for me.	3.66	0.789	0.72	
PSQ 2	Employees of the passenger car company show high responsiveness towards my requests when servicing my cars.	3.62	0.831	0.78	
PSQ 3	I am confidence with the car service provided by the passenger car company.	3.68	0.853	0.69	
PSQ 4	Employees of the passenger car company show their caring to me when servicing my car.	3.53	0.899	0.65	
Perceived Product Quality					0.806
PPQ 3	The passenger car that I intend to repurchase will work properly whenever I use it.	3.80	0.800	0.61	
PPQ 4	The passenger car that I intend to repurchase will has fewer breakdowns than other car brands.	3.71	0.887	0.76	
PPQ 5	The passenger car that I intend to repurchase will last longer than other car brands.	3.76	0.879	0.70	
Perceived Price Fairness					0.780
PF 1	The price of the passenger car that I intend to repurchase is	3.67	0.813	0.64	

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

230

	reasonable.			
PF 2	Every customer pays the same price when they buy car from the passenger car dealer (no discrimination of price).	3.53	0.898	0.71
PF 3	The passenger car that I intend to repurchase is not overpriced.	3.49	0.876	0.70

Structural Equation Modelling

Structural equation modelling analysis was being performed on the data collected. After a few trials and deletion of some low loading factors, the final model was obtained and is as shown in figure 2 and the fit indices were tested as shown in table 2.

Fit Indices

The inferential analysis was conducted by using structural equation modelling. The final model from the analysis is as shown in Figure 2. The fit indices of the model are: normed Chi- Square – 2.56, NFI value – 0.93, CFI value – 0.96 and RMSEA value – 0.045. All these results show that the data collected fit well with the hypothesized model. As such, the results failed to reject the hypothesized model and hence the model is accepted. As shown in table 2, the fit indices have met all the requirements of a fit model.
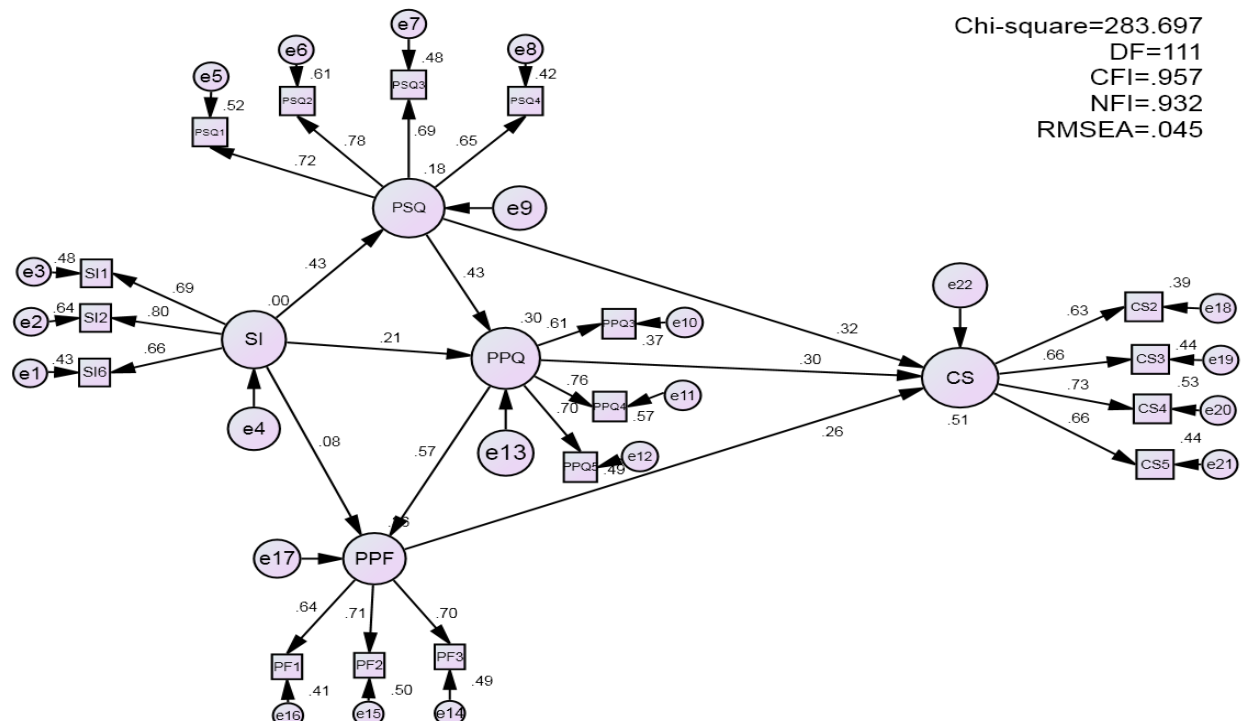
Figure 2: Factors that Influence Customer Satisfaction on Japanese Branded Automobile

Table 2: The Model Fit Statistics of the Proposed Model

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

231

Fit Indices	Values of Fit Indices for Proposed Model	Desired Values for Good Fit
Relative x^2 (x^2/df)	283.697/111=2.556	≤ 3.00 (Kline, 1998)
CFI	0.957	≥ 0.95 (Hu and Bentler, 1999)
NFI	0.932	> 0.90 (Bonnet and Bentler, 1980).
RMSEA	0.045	< 0.07 (Steiger, 2007)

Beta Value and Hypothesis Testing

The following interpretation focused on the relationships of the five constructs as shown in Figure 2. SI shows a direct effect of 0.43 on PSQ, 0.21 on PPQ and 0.08 on PPF. PSQ was found to have direct effect of 0.43 on PPQ and 0.32 on CS. Whereas PPQ shows a direct effect of 0.57 on PPF and 0.30 on CS. Lastly, PPF shows a direct effect of 0.26 on CS. The results showed that SI has the highest effect on PSQ followed by PPQ and PPF. The studies of Azjen (1988, 1991) find that social influence affects the behavior of people whom experience integrated pressures from his/her social groups. Thus, family, friends, colleague and sales person may influence customer perceived service quality toward an automobile purchase. The results showed that PSQ has the highest effect on CS followed by PPQ and PPF. This result is supported by Bei & Chiao, (2001) and Wong et al. (2011) who state that the higher the service quality, the higher the customer satisfaction though product quality is also importance in affecting consumer satisfaction. Nevertheless, PSQ has direct effect of 0.43 on PPQ. According to the research done by Baker et al. (1991) state that service quality directly affected product quality. PPQ shows a direct effect of 0.57 on PPF. This is supported Wong et al. (2011) indicated that PPQ have a significant associated with the PPF. Moreover, the study of Bechwati, Sisodia, & Sheth (2009) also mentioned that customer's product evaluation and perceived product quality has the positive relationship with the price. Thus, the higher quality of product will lead to higher price from customer perceptive.

Table 3: Path Estimates for the Proposed Model

	Path	Est.	S.E.	C.R.	P
H1	Social influence → Perceived service quality	.383	.044	8.706	***
H2	Social influence → Perceived product quality	.158	.039	4.010	***
H3	Social influence → Perceived price fairness	.067	.041	1.657	.097*
H4	Perceived service quality → Perceived product quality	.366	.047	7.757	***
H5	Perceived product quality → perceived price fairness	.603	.068	8.852	***
H6	Perceived service quality → Customer satisfaction	.290	.046	6.327	***

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

232

| H7 | Perceived product quality → Customer satisfaction | .315 | .070 | 4.467 | *** |
| H8 | Perceived price fairness → Customer satisfaction | .261 | .058 | 4.475 | *** |

*** p-value < 0.001

Discussion on Major Findings, Implication and Conclusion

The last section discussed about the major finding from the hypothesis testing, the implication of the research on academics and industry, its limitation and some recommendations for future research and conclusion.

Major Findings

The relationship between social influence and customer satisfaction was successfully proven. Table 4 explains how social influence can indirectly affect customer satisfaction through the constructs of perceived service quality, perceived product quality and perceived price fairness. And this relationship was not study in the previous research.

The results of the study showed that social influence has significant relationship with perceived service quality with the value of 0.43. According to Robert and Noah (2004), social influence affects consumer whom experience integrated pressures from social groups as well as action of other people that has powerful effect which caused the compliance of other social members. Thus, family, friends, colleague and sales person may affect the customers' perceived service quality toward an automobile purchase.

Social influence also found positively affect perceived product quality with the value of 0.21. As supported by Edelman; Barwise and Meehan's (as cited in Hutter et al., 2013) who indicate that social influence will affect customer perception on product quality and brand. However there is no significant relationship found on the effect of social influence on the perception of price fairness of automobile mainly due to the price fixing of automobile is quite standard and transparent; at the same time the competition on price to increase sale has made the unfair price fixing almost impossible. Therefore the relationship was not found.

Besides that, perceived service quality shows significant effect on the perceived product quality at the value of 0.43. Bauer, Falk and Hammerschmidt's studies (as cited in Kuo, Wu & Deng, 2009) found a relationship between customer perceived value and service quality. According to Baker et al. (1991) service quality directly influence the perception on product quality.

Moreover, perceived product quality has positive effect on perceived price fairness with the value of 0.57. This is support by the study of Oh (2009) who states that perceived product quality has a significant association with the perceived price fairness. Meanwhile, according to Rao & Monroe; Dodds, Monroe & Grewal's research (as cited in Wong et al., 2011) discovered that customer's product evaluation and perceived product quality has the positive relationship with the price. Thus, higher perception on product quality leads to higher price from customer perspective.

Next, Perceived service quality shows significant relationship with customer satisfaction ($\beta=0.32$). Gonzalez, Comesana and Brea (2007) indicate that customer satisfaction will be affected by customer perceived service quality. At the same time, Otieno, Harrow and Lea-Greenwood's (as cited in Bryson, Atwal and Hulten, 2013) bear out that customer will be satisfied when perception on product quality meet his/her requirement.

Perceived product quality shows significantly effect on customer satisfaction ($\beta=0.30$). The finding shows that perceived product quality is an important component that maintains customer satisfaction. The positive relationship between customer satisfaction and product quality found to be consistent (Maiga,

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

233

Nilsson and Jacobs, 2013). Therefore, customer satisfaction would increase when companies are improving on their product quality to meet the requirement of customers.

Finally, this study suggests that perceived price fairness is significantly affecting customer satisfaction (β=0.26). In Mowen and Grove's research (as cited Xia, Kukur-Kinney and Monroe, 2010), it was found that customer that pay lower price to get the same products compared to the customer that pay a higher price would obtained higher satisfaction level. Conversely the customer that paid higher price will have a lower satisfaction and may retaliate the company in future. Therefore fair price setting by company is very important in developing or improving long term customer satisfaction and loyalty (Hanif et al., 2010).

Table 4: Summary of Hypotheses

Academic Implication

From the academic standpoint, various relationships between the constructs were proven and the main

H1	Social Influence → Perceived Service Quality	Supported
H2	Social Influence → Perceived Product Quality Perceived	Supported
H3	Social Influence → Perceived Price Fairness	Not Supported
H4	Service Quality → Perceived Product Quality	Supported
H5	Perceived Product Quality → Perceived Price Fairness	Supported
H6	Perceived Service Quality → Customer Satisfaction	Supported
H7	Perceived Product Quality → Customer Satisfaction	Supported
H8	Perceived Price Fairness → Customer Satisfaction	Supported

contribution is this model has successfully link the relationship between social influence with the perception constructs of perceived service quality, perceived product quality and the effect on the customer satisfaction was also proven through the three mediating constructs, namely perceived service quality, perceived product quality and perceived price fairness. This finding can serve as a basis for future researchers who have interest in this area. It can also be referenced to other consumer behavioral research areas.

Managerial Implication

Toyota and Honda Company should create a positive social relationship with their customer. The technique or the program suggested is customer relationship management and loyalty program. In order to increase the services quality, Toyota and Honda Company need to train their employees well to provide the best customer service to their customer. Product quality is a very critical element that influenced customer satisfaction. Toyota and Honda Company have to keep on increasing quality of product they offer to their customer, not only in term of the main functionality but also improve on augmented product, for e.g. the design of the automobile, accessories and etc.. This may lead to increased customer perceived quality which will leads to more purchases. Another aspect is the warranty provided by the companies must be on a longer period, with the longer warranty period, customer trust on the companies will increase, thus satisfaction level increased which will lead to the increase in future sale. In order to increase customer satisfaction, the automobile companies have to keep on improving on their services, product, technology and setting fairer price to fulfill the customer needs and wants thus increase their satisfaction. Furthermore, Toyota and Honda Company must create a better two way

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

234

communications with their customer, take customer feedback seriously which include customer opinion, complain and suggestion and then seek improvement to satisfy their customer continuously.

Limitations of the study

Two limitations occur in this study. First is the customer list, which is an important source for us to conduct this research, unfortunately, we are unable to get it from Toyota and Honda companies. Second is the respondent's bias, this happened when the respondents answer the question in questionnaire. Lastly, respondent may hide some information when they are answering the questionnaire.

Recommendation for Future Research

We would like to recommend future researcher to get the customer list from Toyota and Honda Company as a sampling frame, so that they could conduct a research by using simple random technique. Secondly, we recommend to future research to include more research factors such as media influence, purchase intention or repurchase intention in their research. Besides that, we also encourage future researcher to increase the sample size when they conduct a similar research. Lastly, we also recommend them to replicate this study in similar research.

Conclusion

The main purposes of the research have been fulfilled, in which the factors that influenced customer satisfaction on automobile purchase been identified. This research finds that the factors that influenced the customer satisfaction of Japanese branded automobiles in Malaysia are social influence, perceived services quality, perceived product quality and perceived price fairness. By using structural equation modeling analysis, it proves that social influence, perceived services quality, perceived product quality and price fairness are the factors that influenced customer satisfaction on the purchase of Japanese branded automobile. The problem of brand erosion could be solved by using the recommendation from this research as the result from this model is reliable.

References

Ajzen, I. (1988). *Attitudes, personality, and behavior*. Milton-Keynes, England: Open University Press & Chicago, IL: Dorsey Press.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*, 179-211.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*: Prentice Hall.

Baker, J. A., Parasuraman, A,, Grewal, D., & Burnett, J. J. (1991). The effects of store environment on consumer perceptions of quality price and value. Working paper, University of Texas at Arlington

Bechwati, N. N., Sisodia, R. S., & Sheth, J. N. (2009), "Developing a model of antecedents to consumers' perceptions and evaluations of price unfairness", *Journal of Business Research*, Vol. 62, No. 8, pp. 761-767.

Bei, L. T., &Chiao, Y. C. (2001). An integrated model for the effects of perceived product, perceived service quality, and perceived price fairness on consumer satisfaction and loyalty. *Journal of Consumer Satisfaction*, Dissatisfaction and Complaining Behavior, 14, 125-140.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

235

Beneke, J., Flynn, R., Greig, T., & Mukaiwa, M. (2013). The influence of perceived product quality, relative price and risk on customer value and willingness to buy: a study of private label merchandise. *Journal of Product & Brand Management*, 22(3), 218-228.

Bolton, L. E., Warlop, L., & Alba, J. W. (2003). Consumer perceptions of price (un) fairness. *Journal of Consumer Research*, 29(4), 474-491.

Bruhn, M., Schoenmueller, V., & Schafer, D. B. (2012). Are social media replacing traditional media in terms of brand equity creation? *Management Research Review*, 35(9), 770-790.

Bryson, D., Atwal, G., & Hulten, P. (2013). Towards the conceptualisation of the antecedents of extreme negative affect towards luxury brands. *Qualitative Market Research: An International Journal, 16(4)*, 393-405.

Catoiu, L., Vranceanu, D. M., & Tatu, C. (2010). Framing Influence On Fairness Perception of Differential Prices. *Romanian Journal of Economic Forecasting* .

Comrey, A.L. & Lee, H.B. (1992). *A first course in factor analysis*. Hillsdale, New Jersey: Erlbaum.

Danes, J. E., & Lindsey-Mullikin, J. (2012). Expected product price as a function of factors of price sensitivity. *Journal of Product & Brand Management*, 21(4), 293-300.

González, M.E. A., Comesaña, L.R., & Brea, J. A. F. (2007). Assessing tourist behavioral intentions through perceived service quality and customer satisfaction. *Journal of Business Research*, 60, 153-160.

Hanif, M., Hafeez, S., & Riaz, A. (2010). Factors Affecting Customer Satisfaction. *International Research Journal of Finance and Economics*, 60, 44- 52

Hanif, M., Hafeez, S., &Riaz, A. (2010). Factors Affecting Customer Satisfaction. *International Research Journal of Finance and Economics*, 60, 44- 52

Hsin, K.C., Huery, R. Y., & Bi, F. J. The effects of service quality, customer perceived value, customer satisfaction on behavioural intentions: A study of mobile value-added services in Taiwan. *The Business Review, Cambridge*, 10 (1), 129-135.

Hutter, K., Hautz, J., Dennhardt, S., & Fuller, J. (2013). The impact of user interactions in social media on brand awareness and purchase intention: the case of MINI of Facebook. *Journal of Product & Brand Management* , 342-35

Jang, S. C., & Namkung, Y. (2009). Perceived quality, emotions, and behavioral intentions: Application of an extended Mehrabian- Russell model to restaurants. *Journal of Business Research*, 62(1), 451-460.

Jang, S. C., & Namkung, Y. (2009). Perceived quality, emotions, and behavioral intentions: Application of an extended Mehrabian- Russell model to restaurants. *Journal of Business Research*, 62(1), 451-460.

Kabir, Md.H.,& Carlsson, T. (2010). Expectations, perceptions and satisfaction about Service Quality at Destination Gotland. Unpublished master's thesis, Gotland University.

Kuo, Y. F., Wu, C. M., & Deng, W. J. (2009). The relationships among service quality, perceived value, customer satisfaction, and post- purchase intention in mobile value-added services. *Computers in Human Behaiour*, 25, 887-896.

Maiga, A. S., Nilsson, A., & Jacobs, F. A. (2013). Extent of managerial IT use, learning routines, and firm performance: A structural equation modeling of their relationship. *International Journal of Accounting Information Systems*, 14, 297-320.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

236

Malhotra, N. K., Birks, D. F., & Wills, P. (2012). *Marketing Research: An Applied Approach.* (4th ed.). Harlow: Pearson Education.

Nguyen, M. Y. (2012). Effects of service quality and price fairness on student satisfaction. *International Journal of Business and Social Science*, 2 (19), 132- 150.

Oh, H. (2009). The Effect of Brand Class, Brand Awareness, and Price on Customer Value and Behavioral Intentions. *Journal of Hospitality & Tourism Research* .

Okay, S., & Akcay, M. (2010). Factors affecting satisfaction levels of internal customers in Turkish automotive authorized services. *African Journal of Business Management*, 4(18). 3872-3891.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985), "A conceptual model of service quality and its implications for future research', *The Journal of Marketing*, 49 (4), pp. 41-50.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *The Journal of Marketing*, 49(4), 41-50.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1994), "Reassessment of expectations as a comparison standard in measuring service quality: implications for further research", *The Journal of Marketing*,
58(1) , pp. 111-124.

Robert, B. C., & Noah, J. G. (2004). Social Influence: Compliance and conformity. *Annual Review of Psychology, 55,* 591-621.

Robert, B. C., & Noah, J. G. (2004). Social Influence: Compliance and conformity. *Annual Review of Psychology*, 55, 591-621.

Sethuraman, R., Tellis, J. G., & Briesch, R. A. (2011). How well does advertising work? Generalization from meta-analysis of brand advertising elasticities. *Journal of Marketing Research,* 48(3), 457-471.

Southey, G. (2011). The Theories of Reasoned Action and Planned Behaviour Applied to Business Decisions: A Selective Annotated Bibliography. *Journal of New Business Ideas & Trends*, 9 (1), 43-50.

Srivastava, M., &Kaul, D. (2014). Social interaction, convenience and cusotmer satisfaction: The mediating effect of customer experience. *Journal of Retailing and Customer Services*.

Tan, P. (2014, January 22). MAA reveals vehicle production & sales data for 2013. Retrieved June 22, 2014, from: http://paultan.org/2014/01/22/maa-2013/

Wong, L.S., Ngerng, M.H., Chin, Y.H., Khoo, K.J., Liew, Z.Y., & Shim, C.W. (2011). Model for Customer Retention – A case study on Toyota in Malaysia. Asia Pacific Marketing Conference (APMC)

Xia, L., Kukar-Kinney, M., & Monroe, K. B. (2010). Effects of Consumers' Efforts on Price and Promotion Fairness Perceptions. *Journal of Retailing*, 86, 1-10.

Zhao, X., Li, Y. & Flynn, B. B. (2013). The financial impact of product recall announcements in China. *International Journal of Production Economics*, 142(1), 115-123.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

237

Factors Influencing the Adoption of Mobile Application among Tourism Organizations in Malaysia : A Conceptual Model

Kah Yan Lau[a*], Sook Yan Lee[b], Lee Kheng Looi[c], Yee Ler Tan[d]

Faculty of Business and Finance, UniversitiTunku Abdul Rahman, Malaysia.
Email: valerie@1utar.my*
Corresponding author
Email: sookyan.lee@1utar.my
Email: leekheng@1utar.my
Email: yeeler93@1utar.my

Abstract

Today, the emergence of smart phone has brought dramatic changes to the operation of tourism organizations in Malaysia. As the global market are becoming more reliant on mobile technology, some tourism organizations are yet to reap the benefits offered by the advancement of mobile technology. Although some of the tourism organizations in Malaysia are the major adopters of mobile applications in their business operations, the variation in the degree of adoption of mobile application still exists among different tourism organizations. Hence, this research aims to determine the various factors influencing the adoption of mobile application among tourism organizations in Malaysia. In this study, the technology, organization, and environment (TOE) framework will be used to identify the three contexts that influence the adoption of mobile application among tourism organizations in Malaysia. This research is able to provide an in-depth insight on the adoption process through the technological context, organizational context and environmental context. Furthermore, two additional constructs namely cost and risk management will be incorporated into the TOE framework. These additional constructs provide a comprehensive view on the cost of establishment and risk associated with the adoption of mobile application. In addition, this research will contribute significantly to the society as its result can be applied to the adoption of mobile application in other industries in the global economy.

Keywords: Mobile Application, Tourism Organization, Adoption

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

238

Application of Media Richness Theory into WOM Sources used by Private Higher Education Institutions

Ang Chuan Lock[a] and Md. Sidin Ahmad Ishak[b]

[a]Faculty of Arts & Social Sciences,University of Malaya, Malaysia , pti_tuitioncentre@yahoo.com
[b] Faculty of Arts & Social Sciences,University of Malaya, Malaysia, mdsidin@um.edu.my

Abstract

This study attempts to apply the famous media richness theory into word-of-mouth sources used by private higher education institutions. This is a conceptual study where numerous past literatures were referred in order to provide comprehension towards the intended application of theory. Reviews indicate that all the six WOM sources are not able to be applied into the continuous scale of theory in assessing its richness. Nevertheless, the theory greatly provides basic insights on the dimensions that can be used to assess the richness of each of the WOM sources.

Keywords: Media Richness Theory, Word of Mouth, Private Higher Education Institutions

RESEARCH BACKGROUND

The higher education sector of Malaysia essentially comprises of a huge number of private operators compared to their government-funded counterparts. In actual fact, the competition in this sector is very intense particularly among the private operators due to the market saturation caused by the operation of about 600 PHEIs where 33 of these PHEIs are universities, 4 are foreign university branch campuses and about 500 are colleges (Ken, 2010; Therin, 2012; http://www.mohe.gov.my). In spite of their market saturation, statistic indicates that PHEIs have failed to rule the higher education sector. In 2010, the enrollment of students in Malaysia's higher education institution was 1.13 million comprising both foreign and local students. Of this admirable figure of enrollment, only 48 percent was taken place in PHEIs ("Malaysia's education sector well poised for further growth", 2011).

Regardless of their market opportunities in the form of popularity among foreign students in pursuing undergraduate courses and Government's quota system which resulted into limited seats for non-Bumiputra students, PHEIs were not able to secure the most possible number of students (Md. Salleh, 2007). For instance, the enrollment in PHEIs was very modest in 2007 even though there were about 250000 local students whom completed their high school educations but did not enroll for their tertiary educations. Besides, it was also claimed that such highly competitive environment could probably result into decline in the enrollment by about 20 percent particularly among small-sized institutions (Zalina, 2003 as cited in Md. Salleh, 2007). The current modest and the potential decline in the enrollment portrays that weaknesses of PHEIs in recruiting new students and a new challenge for PHEIs in ensuring their sustainability in the marketplace.

Further, the market concentration of PHEIs has translated into numerous alternatives for students in selecting the study destination which then lengthen their decision making process (Palmer, Hayek, Hossler, Jacob, Cummings & Kinzie 2004; Gooch, 2011). In addition, the widespread dominance of Internet has also complicated their decision making process in selecting a suitable institution for them to pursue their studies (Rieh & Hilligoss, 2008). The Internet permits the students to do a wide-ranging online comparison on all the options available in the marketplace particularly in terms of choices of academic programs offered, tuition fees and accreditation of the programs within short time duration. This certainly creates well-informed target customers of PHEIs who usually anticipate a good value for the services paid to the PHEIs.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

239

Meeting such anticipation has been a great challenge for many of the PHEIs which are quite frequently brought to the limelight due to their sub-standard performance (Gooch, 2011; Hon, 2012). Profit-oriented motive combined with the large pool of staffs who are not possessing Doctorate qualification and are then having difficulty in delivering lessons were always lamented for the inferior quality of PHEIs (Ken, 2010; Gooch, 2011). Nevertheless, the ministry takes a great care on the quality issues where stringent rules were set in which about 30 percent of PHEIs with poor quality were required to discontinue their operation thus far (Lyn, 2010) or were imposed substantial amount of fine following the regular audits, inspection on the facilities and complaints received from public (Gooch, 2011). Such policy was in place in order to withstand the country's image which is aspired to be a regional educational hub in the near future. Failure to preserve the quality of PHEIs would definitely tarnish not only the country's image but also the name of individual institution (Sultan & Wong, 2012).

RESEARCH PROBLEM

Preservation of brand name is very vital yet a challenging task for any firms particularly those in service sector, the sector where educational institutions operate in. Due to the unique characteristics of service which dampen an objective judgment prior to its consumption, reliance on firm's brand has become a strategic weapon for many service-oriented firms (Ozretic-Dosen, 2007). It is a prevailing scenario in higher education sector where branding of HEIs provide the key stakeholders of institutions i.e. prospective students, a much easier way to identify and distinguish them from the other competing institutions (Waerass & Solbakk, 2009; Lamboy, 2011). This is indeed a much needed solution for many PHEIs in Malaysia due to the market saturation which in turn results into enormous alternatives of tertiary education for students to decide on. Enhancing the brand image of PHEIs in Malaysia is very important not only to appeal to the local students but also to foreign students in which the aspiration of Government greatly relies on (Abdul Rahim et al. 2009).

A strong brand is essentially a mark of trust which is usually highly regarded by consumers as it denotes high product quality, arouses consumers' perceived security and enhances their confidence that the brand will deliver as promised (Aaker, 1996). It is also claimed that improvement in brand trust would create a path for long-term relationship between customers and firms besides inducing the consumer's purchase intention (Bouhlel, Mzoughi, Hadiji & Slimane, 2011; Mahmoudzadeh, Bakhshandeh & Ilkhechi, 2013). Any catastrophe in enhancing and preserving the brand trust of firm, would certainly produce adverse effects towards the success of firm (Syed & Norjaya, 2010; Kabadayi & Kocak, 2012). Similarly, PHEIs with poor brand trust would certainly struggle to secure a sizeable market share in the competitive higher education sector as students would usually avoid institution with poor performance as they believe it would not able to deliver its promises.

In Malaysian context, many students would rather wait for the second or third attempt to enroll in public universities which are used to be associated with superior quality instead of hurriedly enrolling into PHEIs (Md. Salleh, 2007). This issue is not unique only to Malaysia but rather worldwide; according to a high ranking of official from one of the premier universities in Europe, "Universities for a very long time have been based on trust and the entire higher education system operates on trust, and the public has been finding more and more reasons to be mistrustful" (Lewis, 2014). Such skeptical behavior towards PHEIs can be effectively curbed through dissemination of positive word-of-mouth (WOM) by the trustworthy sources. A typical typology of consumer behavior claims that consumers not only seek information given by the firms but also from their close social circles or sometimes even from other consumers (Peter & Olson, 2002). Therefore, WOM is greatly considered a vital component in influencing brand trust of students and hence their decision in selecting a PHEI as their study destination (Yahya, Azizam & Mazlan, 2014).

It is remarkable to note that WOM is at least twice as powerful as traditional promotional tools particularly in influencing sales where with the widespread practice of electronic WOM, it is now 50 percent more influential than it was 30 years ago (Bughin, Doogan & Vetvik, 2010). It was also found that about 90 percent of surveyed respondents had cited that WOM as their preferred source of information though this discovery is subject to the nature of offerings. Existing studies also claimed that the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

240

recommendation of WOM is much more powerful due to the heavy involvement of students though, on most occasions, WOM recommendation is slightly less positive in services sector due to the great variance in the delivery of services (Bughin et al. 2010). This signals that WOM, at times, would probably results into the dissemination of negative information on PHEIs which are inherently service-oriented firms. Such potential contrary scenario could be effectively managed with the numerous appropriate types of WOM information sources (Selwyn & Facer, 2007). This has necessitated to understand the impact of varied WOM sources in disseminating the favorable information in order to build brand trust towards a PHEI.

REVIEW OF PAST STUDIES

Media Richness Theory

Media richness theory (MRT) is a basis to describe about the ability of a communication medium in reproducing the information sent (Daft & Lengel, 1986). It was primarily developed to describe and assess the communication mediums used in exchanging information within firms. The generic application of MRT is to select an appropriate communication medium where the main aim to select a specific medium is always to reduce the equivocality of a message which otherwise would be resulting into two or more misleading interpretations (Sun & Cheng, 2007; Dennis & Valacich, 1999; Daft, Lengel & Trevino, 1987).

This theory fundamentally suggests that each communication medium has a distinct richness or abilities in reducing the vagueness of message, varied interpretation besides enhancing the understanding on the content of message (Daft & Lengel, 1986). The rich medium is believed to be more effective in exchanging information in contrast to mediums with low richness which are claimed to be less effective. Figure 1 illustrates the theory of media richness which ranks the varied communication mediums based on its richness and effectiveness (Musil, 2012).
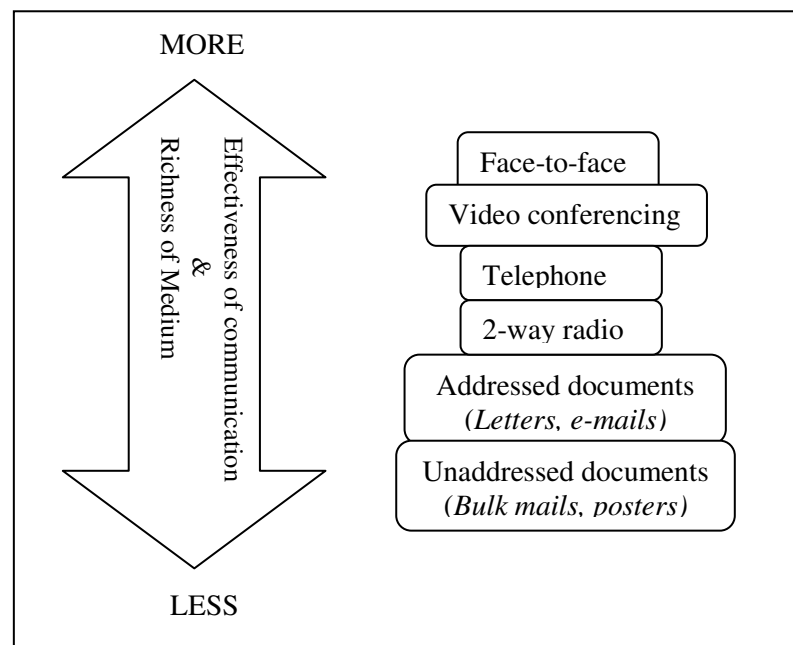
Figure 1: Illustration of Media Communication Theory
Source: Adopted from Musil (2012)

In addition, it also claims that richness of a communication medium can be assessed based on the medium's ability in handling simultaneous varied information cues, facilitating instant feedback, developing a personal focus and making use of natural language (Daft et al. 1987; Daft & Lengel, 1986). As illustrated in Figure 1, face-to-face mediums, which permit utilization of various cues such as facial

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

241

expressions and body languages to interpret the message, immediate feedbacks due to two way interactive communications, personalization in delivering the message and usage of natural language instead of written numbers or texts, are considered very rich and effective mediums compared to written documents which are positioned on the lower end of the continuous scale due to its inability in using multiple cues, furnishing immediate feedbacks and customizing the content of message besides its reliance on the written information instead of natural language.

Word-of-Mouth

Marketers have stressed that for the past twenty years, a pleased consumer would pass the happy experience to eight other people whereas a displeased consumer would inform more than twenty people regarding their unpleasant experiences (Becerra & Badrinarayanan, 2013; Pimental & Reynolds, 2004). On the other hand, advances in technology have increased these numbers by many folds as it is easier to disseminate information online (Becerra & Badrinarayanan, 2013; Ha, 2004).

WOM can be defined as the verbal backing up for a brand by spreading positive recommendations about a brand and persuading others about the superiority of a brand as compared to its competitors (Becerra & Badrinarayanan, 2013). It can be further classified as the interaction between one consumer and another consumer induced by the relationship which they share with their respective brands (Pimental & Reynolds, 2004; McAlexander et al. 2002).

Abundance of information is accessible and made available at the consumers fingertips with the advent of the Internet (Andreassen & Streukens, 2009; Awad & Ragowsky, 2008). However, at times consumers are pressed for information and it is unavailable to aid them in their decision making process (Sweeney, Soutar & Mazzarol, 2012; Trusov et al. 2009; Mazzarol, Sweeney & Soutar, 2007). When consumer is put in such situations, they would rely on the opinions of others (Berger & Schwartz, 2011). Since WOM is a non-paid form of advertising and the sender does not gain any monetary rewards, it then elevates the credibility of the sender and also the information shared (Hinz, Skiera, Barrot & Becker, 2011; Godes & Mayzlin, 2009). Moreover, its communication is viewed as a persuasive form of communication as compared to its paid counterparts (Sweeney et al. 2012; Watts & Peretti, 2007).

WOM plays a vital role in the education sector when the other factor such as cost, brand name and reputation does not differ significantly from one institution to another (de Matos & Rossi, 2008; Binsardi & Ekwulugo, 2003). Experiences and recommendations shared by credible sources would most likely increase the preference of students to study at a particular PHEI (Chan & Ngai, 2011).

Sources of WOM Communications

Traditional Sources – Family, friends, school teachers, admission advisors

The level of trust that a consumer has on a higher institution of education depends on the opinions of others (Berger & Schwartz, 2011). In addition, opinions that originate from the primary group such as family members and friends are perceived to be more trustworthy and credible as compared to the impersonal sources (Borgatti, 2009; Binsardi & Ekwulugo, 2003). It has been reported that approximately 30% of PHEI consumers were highly recommended by family, relatives and friends (Top-notch medical degree, 2014).

Family - in most circumstances, consumers would frequently turn to family members for opinions and advice due to the strong formal relationship that exist between them as a unit (Lam & Mizerski, 2005). The persuasion power of family members which includes relatives highly influences the consumers (Top-notch medical degree, 2014). When family members are able to clear doubts and provide assurance to consumers regarding PHEI, it reduces the element of risk and increases the credibility of the college selection process (Riegner, 2007). WOM communication happens to take place between family members more frequently due to the higher levels of trust and the personal bond which exist between them (Albert, Merunka & Valette-Florence, 2008). This is due to, these groups of individuals are easily available and contactable most of time (Steffes & Burgee, 2009). As a consequence, family will act as an important

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

242

source of WOM as consumers would actively seek their opinion before they actually select a PHEI (Kemp, Childers & William, 2012).

Friends - Social relationship is another important source of WOM and it has been researched greatly (Godes & Mayzlin, 2009; Steffes & Burgee 2009). Social relationship refers to the connection between the consumer and also their circle of friends such as family friends, neighbours, acquaintances and others (LeBaron & Jones, 2002). Information obtained from social circles would be seen as valuable since strong ties exist between consumers and their friends (Bhattacharya & Sen, 2003). This indicates that, as high levels of trust tie consumers and friends' together, word-of-mouth communication tends to take place (Prahalad & Ramaswamy, 2000). In addition, close friends are able to convince and influence consumer's choice of PHEI due to the strong personal bonds that exist between them (Dahl, Manchanda & Argo, 2001). Consumers will mostly turn to their social circles for opinions on matters that are important after consulting their family members (D'Rozario, 2001). Peers are known to provide unbiased information to consumers (Godes & Mayzlin, 2009). Hence, friends are perceived as trustworthy sources of information (Steffes & Burgee 2009).

School teachers - School teachers are known as opinion leaders to students and parents as they possess the basic characteristics of an opinion leader (Godes & Mayzlin, 2004). Opinion leaders are defined as individuals who are knowledgeable and willing to exchange information with consumers (Edwards, Edwards, Qing & Wahl, 2007). In addition, opinion leaders are able to influence consumer's decision and change perceptions (Steffes & Burgee, 2009). Moreover, teachers are also known as expert opinion leaders when they share information pertaining to their area of expertise (East, Hammond & Lomax, 2008). Students perceive that teachers understand them better as valued by the amount of time which they spend together in school (Schindler & Bickart, 2005). Accordingly, students depend on teachers greatly as their opinions are viewed as unbiased (Kempe, Kleinberg & Tardos, 2003). School teachers are perceived as credible source of WOM as they are believed to act in the best interest of the students (Dawson, 2008). Consumers would frequently consult their teachers as they find it easier to communicate with them (East et al. 2008). Moreover, information provided by teachers tends to be less biased and they are more sensitive to the concerns of the students (Kempe et al. 2003).

Admission advisor - Admission advisors are classified as employees who are placed on an institutions payroll (Spoon, 2006). These advisors are known for their expert knowledge regarding their higher education institution (Schreiner, 2009). In addition, they have the capability and qualification to be the spokesperson on behalf of the institution (Lala & Priluck, 2011). Furthermore, they are the important employees who are able to answer doubts of consumers pertaining to admission and financial matters such as course registration, loans available and others (Ahmad, 2006). Admission advisors often find themselves in dilemma (Bers, 2005). On one hand, they are the representatives of the PHEI, hence they are obliged to market the institution to the best of their ability (McAlexander & Koenig, 2010). On the other hand, they have a social obligation to the students (Fuller & Pittarese, 2012). Thus, admission advisors are supposed to provide beneficial advice to students although it would contradict with the employers (Davis, Davis & Dunagan, 2012). Past studies have shown that consumers would frequently obtain information from admission advisors via face-to-face meeting or via technology such as e-mail and telephone (De Jager & Du Plooy, 2010). Moreover, admission advisors are popularly sought after during the initial stages of the college search process (Knox, Schlosser, Pruitt & Hill, 2006). However, they are not a popular choice of WOM as compared to parents and friends (Lala & Priluck 2011; Spoon, 2006).

Technological Sources – College website, social media

The advances of information technology and popularity online social networking sites have increased the power and influence of word-of-mouth communication (Brown, Broderick & Lee, 2007). The Internet has also enabled students to share their remarks and opinions on specific sites (e.g. forums, web pages, discussions boards etc.) and on networking sites (e.g. Facebook, Myspace, Twitter etc.) regarding higher education institutions (Becerra & Badrinarayanan, 2013; Sawhney, 2011). The importance of WOM expressed via technology namely the Internet cannot be undermined. As a matter of fact, technology has given rise to a vital form of electronic word-of-mouth (eWOM) (Chan & Ngai, 2011; Sawhney, 2011; Hennig-Thurau & Walsh, 2003). Ever since, academicians and practitioners have shown

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

243

tremendous attention to the impact that eWOM has on brand trust among the PHEIs (Chan & Ngai, 2011; Xia & Bechwati, 2008; Dwyer, 2007).

College Website - A college website acts as an interface and is an important touch point for the consumers (Park & Lee, 2009). Accordingly, higher education institutions around the world are using their web sites to penetrate their target markets (Edward et al. 2007). Higher education institutions were using their web sites mainly to distribute and collect admission forms (Chen & Xie, 2008). However, in recent times, these websites are increasingly used to persuade the students (Bailey, 2005). In addition, these sites are able to reduce perceived risks by increasing positive eWOM (Riegner, 2007). Positive comments posted on college web sites by students and parents increase the reliability and trustworthiness of the sites (Edwards, Edwards, Shaver & Oaks, 2009). Furthermore, perceived credibility of the sites increases when important information such as fees, affiliation, ranking, financial aids and other are accessible to consumers (Mack, Blose & Pan, 2008). Students frequently visit college web sites during the initial search process (Lin, 2007). In addition, students make comparisons between PHEIs using information gathered from various web sites (Litvin, Goldsmith & Pan, 2008). Accordingly, students have also voted for web sites as the most frequently used source of WOM during the college selection process (Edwards et al. 2009). Thus, the higher usage frequency of a college web site indicates higher brand trust levels among students from higher education institutions (Riegner, 2007).

Social Media – Social media such as Wikipedia, Facebook, Twitter, YouTube and others rely on the mobile and web-based technologies (Mangold & Faulds, 2009). Besides traditional interpersonal sources, students turn to social networking sites for latest updates and opinions on PHEIs (Brown et al. 2007). Information obtained from these sites actually complements the information obtained from traditional sources (Mangold & Faulds, 2009). Students have the flexibility of communicating with their social contacts online according to their mutual convenience (Kozinets, De Valck, Wojnicki & Wilner, 2010). Moreover, there are various common characteristics which are shared by members of a social group such as age, peers, interest and others which increases the degree of understanding between them (Libai, Bolton, Bügel, De Ruyter, Götz, Risselada & Stephen, 2010). As a consequence, students perceive social medias as more reliable and trustworthy (Kotler, 2011). Generally, the risk factor associated with choosing a higher education institution drives consumers to source for additional information (Bakshy, Hofman, Mason & Watts, 2011). These social media enable students to exchange information online which indirectly reduces the element of perceived risk (Xia & Bechwati, 2008). As a consequence, credibility of the social media increases since information is shared mostly by individuals based on their past experiences (Kozinets et al. 2010). Moreover, the advent of technologies has enabled consumers to obtain and compare information online with their peers and others via social media (Edwards et al. 2009). The high frequency of communication between students and others via the social media motivates consumers to repeatedly use them (Riegner, 2007). The high dependency and usage of social media by students signal good image of the PHEI (Chan & Ngai, 2011)

DISCUSSION AND CONCLUSION

The two major groups of WOM sources discussed above can be also discussed based on the typology of Media Richness Theory (MRT). The traditional sources comprising family members, friends, school teachers and academic advisors are evidently considered as a variation of face-to-face medium. These sources are ranked high in their richness and effectiveness in communicating intended information (Schiefelbein, 2012; Sun & Cheng, 2007; Daft & Lengel, 1986). This is due to the possibilities for students, as the audience, to use the multiple cues i.e. convincing body language of sender, to interpret the information communicated. The information communicated which is usually personalized at least based on the student's socio-demographic profile i.e. education qualification, preference towards an academic course etc. would easily be accepted by the students and their parents. In addition, provision of immediate feedbacks by these sources which are normally in-real time would enhance the acceptance of information received and hence, facilitate the student's decision on the selection of PHEI. Besides, the real-time verbal communication is greatly considered as the key reason for the effectiveness of these sources in communicating the intended information.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

244

Nevertheless, past researches had claimed that tenets of MRT are not appropriate to assess and select an appropriate new communication medium (Elizabeth, 2013; Dennis, Fuller & Valacich, 2008; Dennis et al. 1999). This is because the theory was constructed before the widespread use of technologically oriented communication mediums (Sun & Cheng, 2007; Dennis et al. 1999). In the context of current study, one of the technological sources i.e. college's website shall greatly vary in its richness based on the use of multimedia i.e. audio, video, graphics, texts and pictures. It is perceived that websites with extensive use of multimedia applications would have a good richness compared to others with minimal use of multimedia applications (Simon & Peppas, 2004; Jackson & Purcell, 1997).

Similarly, social media greatly differ in terms of its richness. It is all about a medium which facilitates a social interaction in order to communicate information in virtual communities and networks (Ahlqvist, Halonen & Heinonen, 2010). There are many types of social media ranging from a simple collaborative project such as Wikipedia which mainly utilizes texts, to (micro) blogs such as Twitter which allows for instant, two-way and personalized communications and virtual game-worlds such as World of Warcraft which provides personalized entertainments in the form of the massive online role playing games (Shi, Rui & Winston, 2014; Kaplan, 2012). The simpler social media is considered to have low richness though it can be very effective in transmitting a low equivocal information vice versa to a complex social media which would be very effective in delivering any sort of information due to its richness (Elizabeth, 2013; Debashish & Robert, 2012).

Though all the six WOM source are not exactly fitted into the continuous scale of MRT in assessing its richness, the theory greatly provides basic insights on the dimensions that can be used to assess the richness of each of the WOM sources.

References

Aaker, D. A. (1996). Building strong brands, *The Free Press, New York.*

Abdul Rahim, A.B., Fariza, H., Hartini,A., Filzah, M.I. & Hisham, D. (2009). Distinctive Capbilities and Strategic Trusts of Malaysia's Institutions of Higher Learning. *International Journal of Marketing Studies,* 1(2).

Ahmad, S. (2006, October). International student expectations: The voice of Indian students. In *Australian International Education Conference* (pp. 10-13).

Albert, N., Merunka, D. & Valette-Florence, P. (2008). "When consumers love their brands. Exploring the concept and its dimensions". *Journal of Business Research*, Vol. 61 No. 10, pp. 1062-1075.

Ahlqvist, T., Bäck, A., Heinonen, S., & Halonen, M. (2010). Road-mapping the societal transformation potential of social media. *foresight*, *12*(5), 3-26.

Andreassen, T.W. and Streukens, S. (2009). "Service innovation and electronic word-of-mouth: is it worth listening to?". *Managing Service Quality*, Vol. 19 No. 3, pp. 249-65.

Awad, N. and Ragowsky, A. (2008). "Establishing trust in electronic commerce through online word of mouth: an examination across genders". *Journal of Management Information Systems*, Vol. 24 No. 4, pp. 101-21.

Bailey, A. A. (2005). Consumer awareness and use of product review websites. *Journal of Interactive Advertising*, *6*(1), 68-81.

Bakshy, E., Hofman, J. M., Mason, W. A., & Watts, D. J. (2011, February). Everyone's an influencer: quantifying influence on twitter. In *Proceedings of the fourth ACM international conference on Web search and data mining* (pp. 65-74). ACM.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

245

Bhattacharya, C.B. and Sen, S. (2003). "Consumer-company identification: a framework for understanding consumers'relationships with companies". *Journal of Marketing,* Vol. 67 No. 2, pp. 76-88.

Becerra, E. P., & Badrinarayanan, V. (2013). The influence of brand trust and brand identification on brand evangelism. *Journal of Product & Brand Management*, *22*(5/6), 5-5.

Berger, J. & Schwartz, E. M. (2011). What Drives Immediate and Ongoing Word of Mouth? *Journal of Marketing Research,* Vol. 48, No. 5, pp. 869-880.

Bers, T. (2005). Parents of traditionally aged community college students: Communications and choice. *Research in Higher Education*, *46*(4), 413-436.

Binsardi, A., & Ekwulugo, F. (2003). "International marketing of British education: research on the students' perception and the UK market penetration". *Marketing Intelligence & Planning*, Vol. 21 No.5, pp.318-27.

Blessinger, P., & Sengupta, E. (2012, July 2). Is Malaysia the Regional Leader in International Higher Education? *The Guardian*. Retrieved June 14, 2014 from http://www.theguardian.com/higher-education-network/blog/2012/jul/02/higher-education-in-malaysia

Boo, S. L. (2010, September 29). Full Foreign Equity in Private Universities. *The Malaysian Insider*. Retrieved June 7, 2014 from http://www.themalaysianinsider.com/malaysia/article/full-foreign-ownership-of-private-universities-by-2015-says-ministry

Borgatti, S. P., Mehra, A., Brass, D. J. & Labianca, G. (2009). Network analysis in the social sciences. *Science,* Vol. 323, No. 5916, pp. 892-916.

Bouhlel, O., Mzoughi, N., Hadiji, D., & Slimane, I. B. (2011). Brand Personality's Influence on the Purchase Intention: A Mobile Marketing Case. *International Journal of Business and Management*, *6*(9), p210.

Brown, J., Broderick, A.J. & Lee, N. (2007). "Word of mouth communication within online communities: conceptualizing the online social network". *Journal of Interactive Marketing*, Vol. 21 No. 3, pp. 2-20.

Bughin, J., Doogan, J., & Vetvik, O. J. (2010). A new way to measure word-of-mouth marketing. *McKinsey Quarterly*, *2*, 113-116.

Chai, H. C. (2007). The Business of Higher Education in Malaysia. *Commonwealth Education Partnerships (pp 114-118)*. Retrieved June 23, 2014 from http://www.cedol.org/wp-content/uploads/2012/02/114-118-2007.pdf

Chan, Y. Y., & Ngai, E. W. T. (2011). Conceptualising electronic word of mouth activity: An input-process-output perspective. *Marketing Intelligence & Planning*, *29*(5), 488-516.

Chen, Y. & Xie, J. (2008). "Online consumer review: word-of-mouth as a new element of marketing communication mix". *Management Science*, Vol. 54 No. 3, pp. 477-91.

Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. *Management science*, *32*(5), 554-571.

Daft, R. L., Lengel, R. H., & Trevino, L. K. (1987). Message equivocality, media selection, and manager performance: Implications for information systems. *MIS quarterly*, 355-366.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

246

Dahl, D.W., Manchanda, R.V. and Argo, J.J. (2001). "Embarrassment in consumer purchase: the roles of social presence and purchase familiarity". *Journal of Consumer Research*, Vol. 28, December, pp. 473-81.

Davis, M., Davis, K. J., & Dunagan, M. (2012). *Scientific Papers and Presentations: Navigating Scientific Communication in Today's World*. Academic Press.

Dawson, V. (2008). Use of information communication technology by early career science teachers in Western Australia. *International Journal of Science Education*, *30*(2), 203-219.

De Jager, J., & Du Plooy, T. (2010). Information sources used to select a higher education institution: Evidence from south african students. *Business Education & Accreditation*, *2*(1), 61-75.

De Matos, C. and Rossi, C. (2008). "Word-of-mouth communications in marketing: a meta-analytic review of the antecedents and moderators". *Journal of the Academy of Marketing Research*, Vol. 36 No. 4, pp. 578-96.

Debashish, M. & Robert, J.M. (2012). "Extending media richness theory to explain social media adoption by microbusinesses."

Dennis, A. R., & Valacich, J. S. (1999, January). Rethinking media richness: Towards a theory of media synchronicity. IEEE *Proceedings of the 32nd Annual Hawaii International Conference.*

Dennis, A.R., Fuller, R.M. and Valacich, J.S. (2008). Media, Tasks and Communication Processes: A Theory of Media Synchronicity, *MIS Quarterly*, 32(3), 575-600

D'Rozario, D. (2001). "The structure and properties of the consumer susceptibility to interpersonal influence scale in two immigrant populations in the USA". Journal of International Consumer Marketing, Vol. 13 No. 2, pp. 77-101.

Dennis, A. R., & Valacich, J. S. (1999, January). Rethinking media richness: Towards a theory of media synchronicity. In *Systems Sciences, 1999. HICSS-32. Proceedings of the 32nd Annual Hawaii International Conference on* (pp. 10-pp). IEEE.

Dwyer, P. (2007). "Measuring the value of electronic word of mouth and its impact in consumer communities". *Journal of Interactive Marketing*, Vol. 21 No. 2, pp. 63-79.

East, R., Hammond, K., & Lomax, W. (2008). Measuring the impact of positive and negative word of mouth on brand purchase probability. *International Journal of Research in Marketing*, *25*(3), 215-224.

Edwards, C., Edwards, A., Qing, Q., & Wahl, S. T. (2007). The influence of computer-mediated word-of-mouth communication on student perceptions of instructors and attitudes toward learning course content. *Communication Education*, *56*(3), 255-277.

Edwards, A., Edwards, C., Shaver, C., & Oaks, M. (2009). Computer-mediated word-of-mouth communication on ratemyprofessors. com: Expectancy effects on student cognitive and behavioral learning. *Journal of Computer-Mediated Communication*, *14*(2), 368-392.

Elizabeth, R. (2013). Volunteer communication and media richness: Recruiting, communicating with, and retaining volunteers. Master of Science Thesis. Rochester Institute of Technology.

Fuller, M., & Pittarese, T. (2012, June). Effectively communicating with university students using social media: a study of social media usage patterns. In *45th Annual Conference June 10-14, 2012* (p. 46).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

247

Godes, D., & Mayzlin, D. (2004). Using online conversations to study word-of-mouth communication. *Marketing Science*, *23*(4), 545-560.

Godes, D. & Mayzlin, D. (2009). Firm-created word-of-mouth communication: Evidence from a field test. *Marketing Science,* Vol. 28, No. 4, pp. 721-739.

Gooch, L. (2011, October 2). Malaysia Tries to Rein In Private Education Institutions. *The New York Times.* Retrieved July 1, 2014 from http://www.nytimes.com/2011/10/03/world/asia/malaysia-tries-to-rein-in-private-education-institutions.html?pagewanted=all&_r=0

Ha, H. Y. (2004). Factors influencing consumer perceptions of brand trust online. *Journal of Product & Brand Management*, *13*(5), 329-342.

Harry, R. L. (2014, January 15). *Losing Trust in Higher Education.* Retrieved June 30, 2014, from http://www.popecenter.org/commentaries/article.html?id=2958

Hennig-Thurau, T. & Walsh, G. (2003). "Electronic word-of-mouth: motives for and consequences of reading customer articulations on the internet". *Journal of Electronic Commerce*, Vol. 8 No. 2, pp. 51-74.

Hinz, O., Skiera, B., Barrot, C. & Becker, J. U. (2011). Seeding strategies for viral marketing: An empirical comparison. *Journal of Marketing,* Vol. 75, No. 6, pp. 55-71.

Jackson, M. H., & Purcell, D. (1997). Politics and media richness in World Wide Web representations of the former Yugoslavia. *Geographical Review*, *87*(2), 219-239.

Kabadayi, E. T., & Kocak, A. A. (2012). Brand Trust and Brand Affect: Their Strategic Importance on Brand Loyalty. *Journal of Global Strategic Management*, 81-89.

Kaplan, A. M. (2012). If you love something, let it go mobile: Mobile marketing and mobile social media 4x4. *Business Horizons*, *55*(2), 129-139.

Kemp, E., Childers, C. Y., & Williams, K. H. (2012). "Place branding: creating self-brand connections and brand advocacy". *Journal of Product & Brand Management*, Vol. 21 No. 7, pp. 508-515.

Kempe, D., Kleinberg, J., & Tardos, É. (2003, August). Maximizing the spread of influence through a social network. In *Proceedings of the ninth ACM SIGKDD international conference on Knowledge discovery and data mining* (pp. 137-146). ACM.

Ken, V. L. (2010, July 10). *The State of Higher Education in Malaysia.* Retrieved June 10, 2014 from http://educationmalaysia.blogspot.com/2010/07/state-of-higher-education-in-malaysia.html

Knox, S., Schlosser, L. Z., Pruitt, N. T., & Hill, C. E. (2006). A Qualitative Examination of Graduate Advising Relationships The Advisor Perspective. *The Counseling Psychologist*, *34*(4), 489-518.

Kotler, P. (2011). Reinventing marketing to manage the environmental imperative. *Journal of Marketing*, *75*(4), 132-135.

Kozinets, R. V., De Valck, K., Wojnicki, A. C., & Wilner, S. J. (2010). Networked narratives: understanding word-of-mouth marketing in online communities. *Journal of marketing*, *74*(2), 71-89.

Lala, V., & Priluck, R. (2011). When Students Complain An Antecedent Model of Students' Intention to Complain. *Journal of Marketing Education*, *33*(3), 236-252.

Lam, D., & Mizerski, D. (2005). The effects of locus of control on word-of-mouth communication. *Journal of Marketing Communications*, *11*(3), 215-228.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

248

Lamboy, J. V. (2011). Implications of Branding Initiatives in Higher Education Among Trademarked Institutions in California.

LeBaron, C.D. and Jones, S.E. (2002). "Closing up closings: showing the relevance of the social and material surround to the completion of interaction". *Journal of Communication,* Vol. 52, September, pp. 542-65.

Libai, B., Bolton, R., Bügel, M. S., De Ruyter, K., Götz, O., Risselada, H., & Stephen, A. T. (2010). Customer-to-customer interactions: broadening the scope of word of mouth research. *Journal of Service Research*, *13*(3), 267-282.

Lin, X. (2007). An Empirical Analysis of Factors Influencing the Credibility of Online Word-of-Mouth [J]. *Finance and Trade Research*, *5*, 019.

Litvin, S. W., Goldsmith, R. E., & Pan, B. (2008). Electronic word-of-mouth in hospitality and tourism management. *Tourism management*, *29*(3), 458-468.

Mack, R. W., Blose, J. E., & Pan, B. (2008). Believe it or not: Credibility of blogs in tourism. *Journal of Vacation marketing*, *14*(2), 133-144.

Malaysia's education sector well poised for further growth. (2011). Retrieved on 2ⁿᵈ July, 2014, from http://www.theborneopost.com/2011/04/21/malaysia%e2%80%99s-education-sector-well-poised-for-further-growth/#ixzz38vilVeBv.

Mangold, W. G., & Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business horizons*, *52*(4), 357-365.

Mazzarol, T., Sweeney, J. C. & Soutar, G. N. (2007). Conceptualizing word-of-mouth activity, triggers and conditions: an exploratory study. *European Journal of Marketing*, Vol. 41, No. 11/12, pp.1475-1494.

McAlexander, J. H., & Koenig, H. F. (2010). Contextual influences: building brand community in large and small colleges. *Journal of Marketing for Higher Education*, *20*(1), 69-84.

McAlexander, J.H., Schouten, J.W. & Koenig, H.F. (2002). "Building brand community". *Journal of Marketing*, Vol. 66 No. 1, pp. 38-54.

Md. Salleh, I. (2007, April 16-17). *Malaysian Education Winning in the Global Race – The Role of Private Colleges and Universities in Malaysia: Widening Access to Quality Higher Education*. Paper presented at the 11ᵗʰ Malaysian Education Summit, Sunway Pyramid Convention Centre, Kuala Lumpur, Malaysia.

Mahmoudzadeh, M., Bakhshandeh, S.G. & Salmani Ilkhechi, M. (2013). Exploring the Effect of Brand Identity on Purchase Intention in Cell Phone Market in Iran. *International Journal of Management and Human Sciences, 2*(S), 1165-1173.

Musil, L. (2012, June 4). Communication and Media Richness Theory*. Retrieved June 18, 2014 from http://leadershipcloud.wordpress.com/2012/06/04/communication-and-media-richness-theory/*

Ozretić-Došen, Đ. (2007). Services Branding: Analysis of Brand Names and Symbols in Insurance Brand Building in Croatia and Slovenia. *Organizacija*, *40*(3).

Park, C., & Lee, T. M. (2009). Information direction, website reputation and eWOM effect: A moderating role of product type. *Journal of Business Research*, *62*(1), 61-67.

Palmer, M., Hayek, J., Hossler, D., Jacob, S. A., Cummings, H., & Kinzie, J. (2004). Fifty years of college choice: Social, political and institutional influences on the decision-making process.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

249

Peter, J.P., & Olson, J.C. (2002). *Consumer Behavior and Marketing Strategy* (6th ed). Irwin, McGraw-Hill.

Pimentel, R. W., & Reynolds, K. E., (2004). "A model for consumer devotion: affective commitment with proactive sustaining behaviors". *Academy of Marketing Science Review*, Vol. 5 No. 1, pp. 1-45.

Prahalad, C.K. and Ramaswamy, V. (2000). "Co-opting customer competence". *Harvard Business Review,* Vol. 78 No. 1, pp. 79-87.

Riegner, C. (2007). Word of mouth on the web: The impact of Web 2.0 on consumer purchase decisions. *Journal of Advertising Research*, *47*(4), 436.

Rieh, S. Y., & Hilligoss, B. (2008). College students' credibility judgments in the information-seeking process. *Digital media, youth, and credibility*, 49-72.

Sawhney, R. (2011). "How do you turn your customers into brand evangelists?". Fast Company, available at: www.fastcodesign.com/1664135/how-do-you-turn-your-customersinto-brand-evangelists (accessed June 1, 2014).

Schiefelbein, J. (2012). Media Richness and Communication in Online Education. Retrieved on 15 June, 2014, from http://www.facultyfocus.com/articles/online-education/media-richness-and-communication-in-online-education/#sthash.VtKpRwjf.dpuf

Schindler, R. M., & Bickart, B. (2005). Published word of mouth: Referable, consumer-generated information on the Internet. *Online consumer psychology: Understanding and influencing consumer behavior in the virtual world*, 35-61.

Schreiner, L. A. (2009). Linking student satisfaction and retention. *Research study: Azusa Pacific University*.

Shah Alam, S., & Mohd Yasin, N. (2010). What factors influence online brand trust: evidence from online tickets buyers in Malaysia. *Journal of theoretical and applied electronic commerce research*, *5*(3), 78-89.

Selwyn, Neil. and Facer, Keri. (2007), Beyond the Digital Divide. Rethinking Digital Inclusionfor the 21st Century, http:www.futurelab.org.uk/openingeducation.

Shi, Z., Rui, H., & Whinston, A. B. (2014). Content sharing in a social broadcasting environment: evidence from twitter. *Mis Quarterly*, *38*(1), 123-142.

Simon, S. J., & Peppas, S. C. (2004). An examination of media richness theory in product Web site design: an empirical study. *info*, *6*(4), 270-281.

Spoon, A. N. (2006). *Identifying Concepts That Influence High School Students During A College Campus Tour* (Doctoral dissertation, Bowling Green State University).

Steffes, E. M., & Burgee, L. E. (2009). Social ties and online word of mouth. *Internet Research*, *19*(1), 42-59.

Sultan, P., & Wong, H. Y. (2012). Service quality in a higher education context: an integrated model. *Asia Pacific Journal of Marketing and Logistics*, *24*(5), 755-784.

Sun, P. C., & Cheng, H. K. (2007). The design of instructional multimedia in e-Learning: A Media Richness Theory-based approach. *Computers & Education*, *49*(3), 662-676.

Sweeney, J. C., Soutar, G. N. & Mazzarol, T. (2012). Word of mouth: measuring the power of individual messages. *European Journal of Marketing,* Vol. 46, No. 1/2, pp. 237-257.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

250

Therin, F. (2012, August 28). An International Hub for Foreign Education? *The Borneo Post*. Retrieved June 2, 2014 from http://www.theborneopost.com/2012/08/28/an-international-hub-for-higher-education/

Top notch medical degree. (2014, July 3). *Star Education Guide*, pp. 16.

Yahya, A. H., Azizam, A. A., & Mazlan, D. B. (2014). The Impact of Electronic Words of Mouth (eWOM) to the Brand Determination of Higher Education in Malaysia: From the Perspective of Middle East's Student. *J Mass Communicat Journalism*, *4*(181), 2.

Wæraas, A., & Solbakk, M. N. (2009). Defining the essence of a university: lessons from higher education branding. *Higher education*, *57*(4), 449-462.

Watts, D. & Peretti, J. 2007. Viral Marketing for the Real World. *Harvard Business Review,* Vol. 85, No. 5, pp. 22-23.

Xia, L. & Bechwati, N.N. (2008). "Word of mouse: the role of cognitive personalization in online consumer reviews". *Journal of Interactive Advertising*, Vol. 9 No. 1, pp. 108-28.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

251

Communication Apps: Literature Review and Proposed Model on Factors Influencing the Adoption among Private University Student

Yew King-Tak[a] , Pang Yee-Wei[b], Siow Ying-Ping[c], Mak Wei-Yoong[d],

Beh Chek-Hong[e], Cheong Hong-Liang[f].

[a] *Universiti Tunku Abdul Rahman, Malaysia, fredyew@gmail.com*

[b,c,d,e,f] *Universiti Tunku Abdul Rahman, Malaysia*

Abstract

Nowadays, information technology as well as mobile technology has grown up tremendously. There is an upward trend in the invention and innovation of applications. This research paper main purpose is to establish a proposed model to study the relationship between factors influencing private university students' intention to adopt Communication Apps (CA). In this study Theory of Planned Behavior (TPB) is used as the conceptual theory to construct the proposed model. Comprehensive existing literatures were assessed and used to develop the relationship between five influencing factors namely; Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), and Perceived Value (PV) on private university students' communication apps adoption.

Keywords: Communication Apps, Private University Students, TPB, conceptual model, adoption

Introduction

Nowadays, the number of mobile device user has increased substantially due to rapid growth in technology. According to Malaysian Communications and Multimedia Commission (2010), there are approximately 30 millions of mobile users in Malaysia. The number of youth subscribers consist of 9 millions or 30% of the total mobile users. Adoption refers to the decision to obtain or employ something new. It also refers to official consent of user to a new interfere or alteration. An "apps" is an end-user software application designed for a specific duty or utilization (Purcell, 2011). Communication Apps is a type of software designed to connect people at lower or not cost incur. Skype, Wechat, WhatsApp, Kakaotalk, Line, etc are the examples and the use of Communication Apps has becoming a prevailing trend nowadays.

Most of the past studies used TAM to study the BI of technology acceptance (Lindsay, Jackson, & Cooke, 2011). Some researchers agreed that TAM is a useful theoretical model for its strong explanation on Information System adoption (Baron, Patterson, & Harris, 2006). As mentioned by Sahar (2012), there are many past studies which adopted TAM to explain user adoption and acceptance of mobile applications. However, there is very limited and few studies focus on Communication Apps. Shroff, Deneen, and Eugenia (2011) conducted an empirical research in Hong Kong to predict students' behavioral intention to use an e-portfolio system. Donatella, Stefania, and Francesca (2014) also used TAM to carry out a study in Italy to evaluate the innovative potential of e-learning systems. These past studies were related to adoption of information technology. However, they did not focus on Communication Apps and were conducted in overseas. The factors affecting the behavioral intention towards the adoption of Communication Apps is uncertain due to lack of past study that had done on this area.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

252

The research objective is to investigate the factors that affect the behavioral intention to adopt communication apps. The data sample is collected from a university in Malaysia and specifically targeted the teenagers aging from 17-25. This research also addresses the research question of what are the factors affecting the behavioral intention of adopting communication apps.

Due to past studies on adoption behavior of Communication Apps is limited, this research will enable application developers to have an understanding on the factors that influencing the BI to adopt Communication Apps among young generation in Malaysia. As for new application developers who planned to penetrate into this market, they can create a better Communication A ppsby referring to this study. Therefore, this study which will analyze and determine the factors that affecting Behavioral Intention to adopt Communication Apps will provide a clearer picture to application developers before penetrate into the market.

Litereture Review
Technology Acceptance Model (TAM)

TAM is one of the most well known models used to evaluate users' acceptance of technology innovation (Donatella, Stefania, & Francesca, 2014). This model speculates that BI to use is the direct determinant of system use (Nour & Ebrahim, 2010). In other words, TAM is adopted to investigate the factors that constitute to the Behavioral Intention of individual to adopt new technology. It has been shown that large number of research had adopted and adapted TAM to apply in different technologies acceptance studies (Linda & Steven, 2014). A research regarding adoption of mobile coupon from Im and Ha (2013) concluded that TAM is able to explain the adoption of information. An enhancement to the model by added social norms and facilitating conditions from TPB model has proved to have a consistent explanatory power of 40% in research that used TAM (Abbasi, Chandio, Soomro, & Shah, 2011).

Theory of Planned Behavior (TPB)

TPB is used to determine the Behavioral Intention of people towards a matter and concluded that an individual behavior is impelled by Behavioral Intention. TPB also affected by perceived behavioral control (Ajzen, 1985). For example, it refers to people perceived the ability behavior to adopt Communication Apps. Therefore, TPB is more suitable as a fundamental theory in this study and indicates the factors that will affect Behavioral Intention of mobile device user to adopt Communication Apps.

Ajzen (1985) revealed in TPB that individual behavior is affected by behavioral attitude, subjective norm, and perceived behavioral control. Besides that, TPB predicts individual's intention and the actual behavior which can found in individual behavior. There were several research studies suggested that TPB is useful and easy to understand the BI to adopt a new technology. Yaghoubi and Bahmani (2010) indicated that TPB is a good explanatory in predicting customers' intentions to use online banking. Another research stated that, TPB model can be applied to the study of workplace dishonesty behavior in Taiwan (Li & Chen, 2011). According to Cheon, Lee, Crooks, and Song (2012), TPB may use BI as a DV instead of actual behavior. Nevertheless, it was found that positive relationship exists between intention and actual behavior (Venkatesh & Davis, 2000). In short, TAM will be adopted as fundamental model while TPB acts as fundamental theory in explaining the factors that affecting the BI to adopt CA.

Conceptual Model and Propositions Development

The proposition of the conceptual model is developed to examine the relationship between the five adoption factors namely performance expectancy, effort expectancy, social influence, facilitating condition and also perceived value and the behavioral intention on adoption of communication apps. The five adoption factors are the independent viarables and the behavioral intention to adopt commnunication apps is the dependent variable in this research.

Performance Expectancy (PE)

The usefulness of technology will lead people to adopt certain technology (Venkatesh et al., 2003). The effectiveness and efficiency of technology will strengthen PE (Brown, Dennis, & Venkatesh, 2010). Venkatesh et al. (2003) defined PE as a person will adopt certain technology if it will enhance and improve the productivity and work performance. In addition, many researchers concluded that PE and BI to adopt new technology is positively correlated. Venkatesh et al. (2003) stated that PE which is also known as perceived usefulness in TAM as the strongest predictor of adoption. PE reflects the perceived

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

253

utility associated with the usage of mobile internet (Alwahaishi & Snasel, 2013). Mobile internet which provides unlimited access to internet and services will improve user's living and working performance and efficiency. The research found that PE is one of the major variables that significantly affect the BI on adoption of ICT. Therefore, a hypothesis is formed as followed :

P_1: PE has a positive relationship with BI to adopt CA.

Effort Expectancy (EE)
Venkatesh et al. (2003) defined EE as the easiness to use a system or application. In addition, EE is similar to TAM's perceived ease of use (Zhou, Lu, & Wang, 2010; Min, Ji, & Qu, 2008). In the context of this study, the probability to adopt CA will increase if users perceive that the application is easy to use. According to Shi (2009) who did a research study on user's acceptance of smart phone online application software, EE has a positive relationship on BI. In addition, Janet, Umi, and Amin (2010) proved that EE has a positive relationship on BI to use Personalised Hands-free Messaging Application. Furthermore, Gao and Deng (2012) conducted a study on users' acceptance behavior to mobile E-book application. The purpose of this study was to evaluate the influence factors that lead to difficulty in E-book development and methods to enhance practical utility of E-book and it was concluded that EE has a positive effect on BI. From here, we have developed the hypothesis of :

P_2: EE has a positive relationship with BI to adopt CA

Social Influence (SI)
SI is defined as the extent to which a person perceives that individual who are imperative to them believes the person should adopt a particular system or technology (Venkatesh et al., 2003; Zhou, 2011). Verkasalo, Nicolas, Castillo, and Bouwman (2010) referred social norms as subjective norms or SI. Lai, Lai, and Jordan (2009) stated that SI has positive relationship on BI towards m-commerce adoption. This statement was tested by evaluating 148 responses collected via web survey from City University of Hong Kong. The result indicated that SI has significant and near positive effects on BI. Wu et al. (2008) also shown that SI is positively related to BI to employ 3G mobile telecommunication. To understand consumers' demands and BI, data was collected through questionnaire and concluded SI can directly influence the BI of consumers. Hence, the hypothesis as below is proposed :

P_3: SI has a positive relationship with BI to adopt CA.

Facilitating Conditions (FC)
Triandis (1980) defined FC as an environment factor that prevent or encourage the adoption of technology. FC also defined the degree to which the existence of technical and organizational infrastructure will support the use of technology (Venkatesh et al., 2003). Consumers are differed in adoption of new products and services (Yang, 2010). Survey questionnaires were distributed through online to determine BI to adopt mobile shopping. The result indicated that FC is positively affected the BI to adopt mobile shopping. Yu (2012) concluded that FC significantly affected BI to use mobile banking. The data was collected on structured questionnaire basis through shopping mall intercept method and proven that actual behavioral was significantly impacted by individual intention and FC. It can be concluded that FC has positive relationship on BI to adopt technology. Hence the following hypothesis is postulated :

P_4: FC has a positive relationship with BI to adopt CA.

Perceived Value (PV)
Pitchayadejanant (2011) defined PV as the balance between pros and cons. In the study on adoption behavior of smart phone in Bangkok, Pitchayadejanant (2011) had proved that PV was positively related to BI to adopt smart phone. People who have iPhone and Blackberry in Bangkok area were chosen as target population. Boontarig, Chutimaskul, Chongsuphajaisiddhi, and Papasratorn (2012) conducted a study on e-health in Thailand which proved that PV has positive effect on the adoption behavior of smart phone. Besides, Minna (2008) who conducted a research at Finland had shown that PV has positive effect on BI to adopt mobile service. In short, PV has a positive effect towards BI to adopt CA.

P_5: PV has a positive relationship with BI to adopt CA

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

254

Proposed Research Model

Figure 1.: Proposed model to examine the factors affecting the behavioral intention to adopt communication apps.

Conclusion

The purpose of this research paper is to seek out the factors that affecting the behavioral intention to adopt communication apps in Malaysia through the proposed adopted research model. To have a deeper understanding of the behavioral intention and improvement in the proposed model, further survey and research should be conducted using the structural analysis. The questionaire for data collection from a private higher institution in Malaysia is still under the process which in order to confirm the proposed model shown in Figure 1 and the prepositions listed. The results of the survey will be posted in the future paper.

References

Abbasi, M. S., Chandio, F. H., Soomro, A. F., & Shah, F. (2011). Social influence, voluntariness, experience and the internet acceptance- An extension of technology acceptance model within a south-Asian country context. *Journal of Enterprise Information Management* , 30-52.

Ajzen, I. (1985). *From Intentions to Actions: A Theory of Planned Behavior.*

Alwahaishi, S., & Snasel, V. (2013). Consumers' Acceptance and Use of Information and Communications Technology: A UTAUT and Flow Based Theoretical Model. *Journal of Technology Moanagement & Innovation* , 61-73.

Baron, S., Patterson, A., & Harris, K. (2006). Beyond Technology Acceptance: Understanding Consumer Practice. *International Journal of Sevice Industry Manangement* , 111-135.

Boontarig, W., Chutimaskul, W., Chongsuphajaisiddhi, V., & Papasratorn, B. (2012). Factors Influencing The Thai Elderly Intention to Use Smartphone for e-Health Services. *Symposium on Humanities, Science and Engineering Research* .

Cheon, J., Lee, S., Crooks, S. M., & Song, J. (2012). An Investigation of Mobile Learning Readiness in Higher Education Based on The Theory of Planned Behavior. *Computers & Education* , 1054-1064.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly* , 319.

Donatella, P., Stefania, M., & Francesca, P. (2014). Adapting the Technology Acceptance Model to Evaluate the Innovative Potential of E-Learning Systems. *Computers in Human Behavior* , 614-622.

Gao, T., & Deng, Y. (2012). A Study on Users' Acceptance Behavior to Mobile E-books Application Based on UTAUT Model. 376-379.

Janet, S., Umi, K. Y., & Amin, K. (2010). User Acceptance towards a Personalised Handsfree Messaging Application (iSay-SMS). *2010 International Conference on Science and Social Research (CSSR 2010)*, (pp. 1165-1170). Kuala Lumpur.

Lai, D. C.-F., Lai, I. K.-W., & Jordan, E. (2009). An Extended UTAUT Model for the Study of Negative User Adoption Behavior of Mobile Commerce. *The 9th International Conference on Electronic Business.* Macau.

Linda, G. W., & Steven, D. S. (2014). The Adoption of Software Measures: A Technology Acceptance Model (TAM) Perspective. *Information & Management* , 249-259.

Lindsay, R., Jackson, T. W., & Cooke, L. (2011). Adapted Technology Accpetance Model For Mobile Policing. *Journal of Systems and Information Technology* , 389-407.

Pitchayadejanant, K. (2011). Intention to use of smart phone in Bangkok Extended. *International Conference on Management (ICM 2011) Proceeding* .

Sahar, G. (2012). Acceptance Theory on Mobile Services and Applications. *Information Technology* , 8-47.

Shi, W. (2009). An Empirical Research on Users' Acceptance of Smart Phone Online Application Software., (pp. 106-110).

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward A Unified View. *MIS Quaterly* , 425-478.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

255

Verkasalo, H., Nicolas, C. L., Castillo, F. J., & Bouwman, H. (2010). Analysis of Users and Non-users of Smartphone Applications. *Tekematics and Informatics 27* , 242-255.

Wu, Y.-L., Tao, Y.-H., & Yang, P.-C. (n.d.). Using UTAUT to explore the behavior of 3G mobile communication users.

Yaghoubi, N. M., & Bahmani, E. (2010). Factors Affecting The Adoption of Of Online Banking: An Integration of Technology Acceptance Model and Theory of Planned Behavior. *International Journal of Business and Management* , 159-165.

Yang, K. (2012). Consumer Technology Traits in Determining Mobile Shopping Adoption: An Application of The Extended Theory of Planned Behavior. *Journal of Retailling and Consumer Services 19* , 484-491.

Yu, C.-S. (2012). Factors Affecting Individials to Adpot Mobile Banking: Empirical Evidence from The UTAUT Model. *Journal of Electronic Commerce Research* , 104-121.

Zhou, T., Lu, Y., & Wang, B. (2010). Integrating TTF and UTAUT to explain mobile banking user adoption. *Computers in Human Behavior 26* , 760-767

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

256

Travel intention among foreign tourists for medical treatment in Malaysia

Seow Ai Na[a], Chong Yee Lee[b], Gengeswari Krishnapillai[c],

Choong Yuen Onn[d], Chan Ling Meng[e]

[a]*UniversitiTunku Abdul Rahman, Malaysia, seowan@utar.edu.my*

[b]*UniversitiTunku Abdul Rahman, Malaysia, chongyl@utar.edu.my*

[c]*UniversitiTunku Abdul Rahman, Malaysia, gengeswarik@utar.edu.my*

[d]*UniversitiTunku Abdul Rahman, Malaysia, choongyo@utar.edu.my*

[e]*UniversitiTunku Abdul Rahman, Malaysia, chanlm@utar.edu.my*

Abstract

Creating a well-known hub for medical tourism centre has been a focus of marketers as a strategy to enhance and differentiate their unique combination of products. Medical institutions are attracted to draw marketing benefits that will contribute to the success in pursuit medical tourism in the future. Intention to travel is part of tourists' decision making process. Tourists have to go through a set of psychological process in deciding their medical treatment destination. This study is aimed at examining foreign tourist's intention to travel to Malaysia in a medical tourism context. By adopting and applying the Theory of Planned Behaviour, the core constructs namely attitude, subjective norm and perceived behaviour control are proposed to have significant association towards foreign tourists' intention to choose Malaysia as their travel destination. Familiarity on the destination for medical treatment is proposed to moderate the said association instead of directly influencing on intention to visit. Possible implications are discussed to provide feedbacks to develop marketing strategies for the authorities.

Keywords: Medical Tourism, Foreign tourists, Travel intention, Theory of Planned Behaviour, Familiarity

Introduction

Nowadays more and more tourists willing to travel to Asia for medical treatment and this has been created a significant economic impact on the medical tourism sector in Asia. Medical tourism is typically viewed as an integration of features of the medical industry and the tourism industry at a travel destination (Hunter, 2007). There are evidences indicating that tourists want to combine a vacation with health or beautification treatment (Lee & Lockyer, 2012) and necessary medical operations (Weil, 2009). Malaysia too has set its eyes on medical tourism. Tourism sector has been identified by Malaysian government as one of the significant capital contributors under the National Key Economic Areas (Chong, Boey & Vathsala, 2005).

With hopes of enhancing country's economic growth, Government is looking to expand medical services. It is believed that with expertise on the healthcare business, the country would be more attractive for foreigners who are seeking for high quality and affordable medical treatments. Besides seeking medical treatment in Malaysia, visitors also have the chances to have sight-seeing and enjoy tourist activities during their medical treatment period.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

257

As one of the latest Asian medical tourism providers, Malaysia is developing its medical tourism sector with an emphasis on visitors from neighbouring countries, such as Indonesia, Singapore, Japan and Middle East countries (Otley, 2007). This group of visitors essentially comprises a dominant market segment of Malaysia's tourism industry for many years (Ormond, 2011). Review of past literature indicates that studies on medical tourism research which concentrates on decision making process are not well discussed. In addition, there is a fairly limited number of studies which considers beliefs and predictive constructs (attitude, subjective norm and perceived behavioural control) as the determinants of intention to visit by medical tourists. Hence, model of Theory of Planned Behaviour (TPB) is foreseen as the tool to measure the intention of foreign tourists to visit Malaysia for medical tourism in this study.

Accordingly, this study aims at examining foreign tourist's intention to travel to Malaysia to seek for a medical treatment. The characteristics of the tourists discussed in this study would be different than the typical tourists as this study is specifically focused on the foreign tourists who intend to travel for a medical treatment. It is then believed that familiarity on the place for medical treatment may moderates the tourists' intention to visit instead of directly affecting their intention to visit. Therefore, this study aims to integrate theory of planned behaviour and familiarity as the moderator to establish a structural model to examine the intention of foreign tourists to visit Malaysia for seeking the medical treatment.

Literature Review

Medical tourism

Medical tourism can be described as an integration of features of the medical industry and the tourism industry at a travel destination (Hunter, 2007). Medical tourism aims to provide treatment and preventive to patients in a favourable environment with vacation element compare to conventional tourism practices. Most visitors choose to seek the medical treatment outside from their home country due to cost factors. According to Goodrich and Goodrich (1987), medical tourism is an attempt on the part of a tourism facility or destination to attract the tourists by deliberately promoting its health care – services and facilities, in addition to its regular tourist amenities. Singh (2008) has further enhanced the definition of medical tourism as it is not only providing the medical treatment such as heart surgery, plastic surgery etc, but it also provides plastic surgery and preventive medical services. Moreover, Bennett et al. (2004) also suggested that medical tourism consists of pleasure orientation which able to help the visitors relief their anxiety and stress on their health problem. It consists of the activities of climatotheraphy, therapeutic treatment, cruises with health treatments services to international tourists (Cook, 2010).

The Rise of Medical Tourism in Malaysia

Like other countries, Malaysia is too expanding itself in the area of medical tourism. In the study of Chee (2007), Ministry of Health (MOH) has developed the National Committee for the promotion of Medical and Health Tourism. However, the medical tourism has yet to reach the level as in the developed countries. In order to capitalise the promising benefits of medical tourism businesses, Malaysian Government is continuously funding the sector with whopping amount about RM 1.65 million in order to increase the service quality in medical tourism. In line with the Government continuous support, Malaysia has become one of the top four medical tourism centres in the world where it is expected to earn up to US$ 590 million within the five years (Ormond, 2011). Malaysia had recorded a tenfold increase in the number of foreigners visiting Malaysia for the medical purpose in the last decade where the digit grew from 56,000 foreign patients in 2000 to 583,000 in 2011 (Malaysia Health Care Council, 2013). Besides, statistics indicate that Indonesian are the top foreigners who sought medical treatment from Malaysia followed by visitors from India, Japan, China, United Kingdom, America, Libya, Bangladesh, Australia and Nepal ("Malaysia aims to break into medical tourism market in big way", March 2014). Furthermore, the Health Tourism Unit has been set up by Ministry of Health primarily to forge smart parties involved in offering and developing tourism products.

In the study of Lee, Han & Lockyer (2013), they indicated that the latest review of Malaysia's medical tourism service provider has becoming more competitive in the medical tourism market, with the reasonable cost of medical treatment, bilingual medical practitioners, public insurance availability,

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

258

favourable currency rate, effective processes on medical devices, and international accredited hospitals etc. This is further acknowledged by the study of Connell (2006), where he pointed that nowadays most foreign companies tend to send their employees to overseas for medical check-up due to cost efficiency. Hence, based on the extracted literature, the benefits of targeting foreign tourist as a major segment can be predicted as a better understanding on the current health and medical care system in Malaysia.

Theory of Planned Behaviour (TPB)

TPB is greatly used to predict and explain the human behaviour in decision making (Ajzen, 1991). This theory suggested that individual's cognitions are the intervention between the observable stimuli and responses in real world situations. TPB model was introduced by Fishbein & Ajzen (1975) initially with three predictive construct (attitude, subjective norm and perceived behavioural control). TPB model is also known as the extension of the Theory of Reasoned Action (TRA) by taking the issues of volitional and subsequent related control elements into account in predicting human behavioural intention and actual behaviour. A person's actual behaviour in performing certain actions is directly influenced by his or her behaviour intention. Past studies (Perkins, et al., 2007; Ecdes, et al., 2006) demonstrated that the TPB constructs significantly correlated with the actual behaviour. This study applied TPB model to predict the intention to travel to Malaysia for medical tourism purposes. TPB treats attitude (AT), subjective norm (SN) and perceived behavioural control (PBC) as independent determinants of intention, while behaviour Intention is the measure of the strength of individual willingness to exerting effort while performing certain behaviours. According to Conner and Abraham (2001) stated that additional constructs such as personality traits and cognitions might enhance the prediction power of TPB, especially the decision-making process in goal-directed activity. In this study, researchers proposed the moderating variable of familiarity, which predicted to enhance the prediction of the model. Familiarity is one of the cognitive constructs which play an important role in affecting the decision making of tourists (Gursoy & Mccleary, 2004; Vogt & Fesenmaier, 1998; Fodness & Murray, 1997)

Proposed Research Model

A research model is constructed based on the review of past literatures (refer to figure 1.) This model is expected to contribute to an understanding for marketers, policy makers, and practitioners on how these potential medical tourists formulate their intention to travel to Malaysia as a medical travel destination in order to increase the inbound medical tourism in Malaysia.
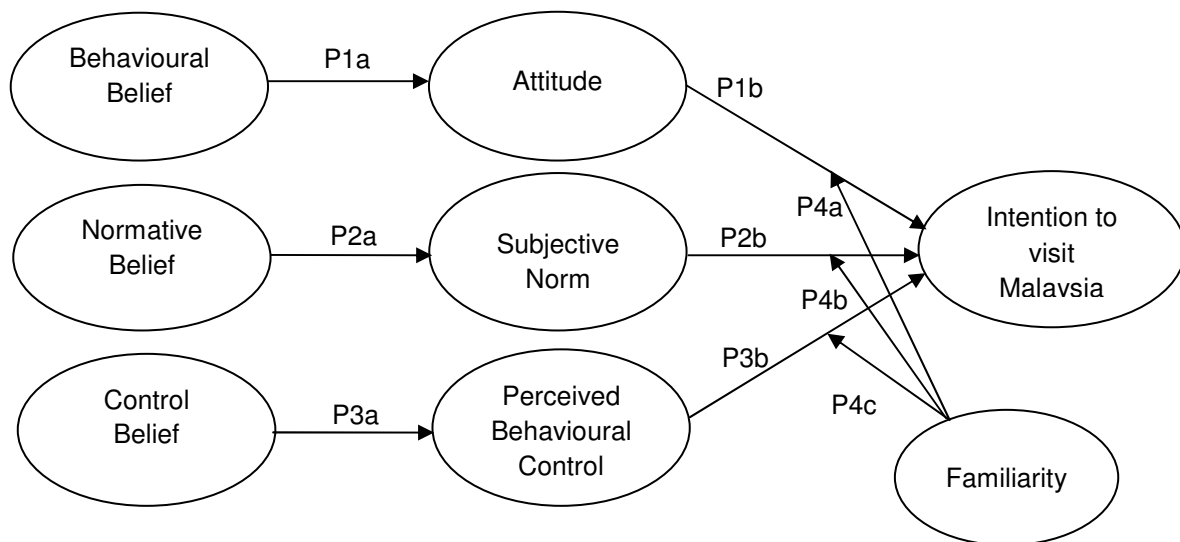
Figure 1. Proposed Conceptual Framework on intention to visit Malaysia for medical tourism

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

259

Hypotheses Development

The key of planned behaviour, Intention or behavioural intention can be defined as an individual's anticipated or intent to perform certain behaviour in future (Ajzen, 1991; Swan, 1981). Behavioural intentions is a popular critical factor and most widely used by past researchers in various industries such as Alam and Sayuti (2011), Han, Hsu and Sheu (2010) and Reddy, York and Brannon (2010). According to Ajzen (1991), behavioural intention is one of the most powerful antecedents of actual behaviour. This is also mentioned in Reddy, York and Brannon (2010) study, if he or she has the ability to control over performing it, the behavioural intention will influence on the actual behaviour of he or she. In order to have an accurate prediction of actual behaviour, Ajzen (1991) suggested that the measurement of behavioural intention must be correspond to the predicted behaviour of the research study. Hence, the appropriate definition of behavioural intentions for present study is an international travellers' or tourists' anticipated or intention to visit Malaysia for medical treatment (Han & Hwang, 2013; Lam & Hsu, 2004). The behavioural intention in TPB is also predicted by three antecedents which are attitudes, subjective norms and perceived behavioural control (Ajzen, 1991). All the three antecedents are contributed to behavioural intention independently (Ajzen, 1991).

Attitude (AT) is described as a personal judgment being in favour or opposed to performing certain behaviour (Ajzen & Fishbein, 1980). Attitude is the function of Behavioural Beliefs (BBs) and Outcome Evaluation (OE) (Fishbein & Ajzen, 1975). BB is one's subjective probability that performing a specific behaviour will lead to a specific consequence and OE is one's evaluation of that specific consequence. Thus, an individual possesses a favourable attitude when the assessed outcomes are positive and he⁄she is likely to perform a specific action (Ajzen, 1991; Cheng, Lam, & Hsu, 2006; Han et al., 2009). In the context of medical tourism, if foreign tourists perceive visiting Malaysia for medical treatment as experiencing traditional medical practices and the outcome of the treatment is expected to be satisfactory, they will feel favourable toward visiting Malaysia and their intention to travel to Malaysia increases in likelihood. Many studies in tourist behaviours demonstrate a positive relationship between AT and BI (Lam & Hsu 2004; Ryu & Jang, 2006; Trafimow & Finlay, 1996). Thus, AT (BB × OE) will influence intention to travel to Malaysia for medical treatment. Thus, the following propositions are established:

P1a: *Behavioural belief will have a significant association to predict attitude of foreign tourists to visit Malaysia for medical treatments purposes.*
P1b: *Attitude will have a significant association to predict foreign tourists' intention to visit Malaysia for medical treatments purposes.*

Hee (2000) and Han et al. (2009) defined "subjective norm (SN) is the opinions of others who are important to an individual and influence his⁄her decision making". Thus, the intentions of a foreign tourist to travel to Malaysia for medical treatment might be influenced by the opinions of others who are important to him⁄her. The subjective norm is comprised of an individual's normative beliefs (NB) about what such important people think he⁄she should or should not do (Ajzen, 1991), and the extent of an individual's motivation to comply (MC) with those referents (Ajzen & Fishbein, 1980; Eagry & Chaiken, 1993). Therefore, SN can be measured by multiplying NB × MC. In the context of medical tourism, if a parent or a spouse does not want him⁄her to travel to Malaysia for medical tourism, his⁄her intention to travel to Malaysia will be low. Interestingly, the relationship between SN and intention is likely to be more influential in collectivistic countries such as Asia than in individualistic countries e.g. Europe (Bagozzi, Gurhan-Canli, & Priester, 2002; Quintal et al., 2009). In some previous holiday destination choice studies, SN was a positive predictor of intention (e.g., Lam & Hsu, 2006; Quintal et al., 2009). Thus, it can be expected that SN (NB × MC) influences the intentions of foreign tourists to travel to Malaysia for medical treatment. Based on the above literature review, following propositions are proposed:

P2a: *Normative belief will have a significant association to predict subjective norm of foreign tourists to visit Malaysia for medical treatments purposes.*
P2b: *Subjective norm will have a significant association to predict foreign tourists' intention to visit Malaysia for medical treatments purposes.*

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

260

Perceived behavioural control (PBC) is an individual's perception of how ease or difficult it is to perform a specific behaviour (Ajzen, 1991). PBC is comprised of Control Beliefs (CBs) and Perceived Power (PP). CB refers to one's perception of the availability of resources⁄opportunities required to perform a specific behaviour, while PP is his⁄her evaluation of the importance of such resources⁄opportunities to perform such behaviour (Ajzen & Madden 1986; Chang, 1998; Han et al., 2009). Thus, the relationship among antecedents for PBC can be measured by multiplying CBs and PP, thus formulated as $PBC = CBs \times PP$. In the context of this study, the perceived control belief refers to knowing how one can gain access to Malaysia and whether one can afford to receive medical treatment based on external resource constraints. Although a potential tourist may have a sufficiently positive attitude⁄subjective norm to travel to Malaysia for medical treatment, if he⁄she doesn't has the money to pay the expenses for travel and treatment, his⁄her intention to travel to Malaysia will be lower. In other words, a foreign tourist's perceptions of having or not having the time or money to travel to Malaysia for MT will be a critical factor in determining their intention to travel to Malaysia in the future. The positive relationship between perceived behavioural control and behavioural intention was observed in studies of intention in the tourism industry (Lam & Hsu 2004, 2006; Sparks, 2007) and health-related studies (Godin & Kok, 1996). Hence, following propositions are formed:

P3a: *Control belief will have a significant association to predict perceived behaviour control of foreign tourists to visit Malaysia for medical treatments purposes.*

P3b: *Perceived behaviour control will have a significant association to predict foreign tourists' intention to visit Malaysia for medical treatments purposes.*

Psychology theories have found that the uncertainty to an event can cause influences on the decision making. The lack of familiarity in the situation will create indecisiveness and awkwardness about how to proceed. The importance of familiarity as a construct in consumption is well established (Biswas 1992; Alba and Hitchinson 1987). Familiarity can be define "as the number of product-related experiences that have been accumulated by consumer and note that product-related experiences" e.g. repeatedly knowing the product through social media, purchasing the product repeatedly lead to familiarity or friend's references (Alba & Hutchinson, 1987). The perspective is well suited in the context of decision to choose or travel a destination. Baloglu (2001) acknowledge that familiarity with a destination is significantly correlated with tourist's decision to visit due to its essential role in selection process among the tourist. He acknowledged that various factors, such as geographic distance, previous visitation experiences, peer recommendation etc., play an important role in the familiarity with a destination, which may influence the visitation of tourist, especially for the reason of medical treatment. Past studies (Crompton, 1979; Phelps, 1986; Hu & Ritchie, 1993; Milman & Pizam, 1995) acknowledged that familiarity significantly affecting the perceptions of tourist on a particular place. Furthermore, researchers (Gursoy & Mccleary, 2004; Vogt & Fesenmaier 1998; Fodness & Murray 1997) acknowledged that destination familiarity is significantly affecting tourist's information search behaviour and also in their decision making process. This is further enhanced by the study Milman & Pizam (1995), which attempted to study the impact of consumer awareness and familiarity on the place for vacation and on the interest and visitation likelihood. Lam & Hsu (2005) continue the study by predicting the behavioural intention of potential Taiwanese travellers to Hong Kong by examine the variable of familiarity with a destination. Thus, this study to propose that familiarity will moderate the impact of social presence on the likelihood that consumer's behaviour towards the intention to visit a travel destination for medical treatment purposes. Hence, based on this, following propositions are formulated with the moderating role of familiarity:

P4a: *The foreign tourists' familiarity is moderating the relationship between attitude and intention to visit Malaysia for medical treatments purposes.*

P4b: *The foreign tourists' familiarity is moderating the relationship between subjective norm and intention to visit Malaysia for medical treatments purposes.*

P4c: *The foreign tourists' familiarity is moderating the relationship between perceived behavioural control and intention to visit Malaysia for medical treatments purposes.*

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

261

Proposed Research Methodology

In this study, quantitative research methodology is proposed to be used, as it helps researchers to examine the relationship between the proposed variables. Questionnaires survey will be distributed to foreign tourists in several local tourists' attractions in Malaysia. Quota sampling techniques is proposed to be employed based on the percentage of foreign tourists by their country of origin. Quota sampling allows the inclusions of all foreign tourists, including the feedback from those minorities in percentage (Sekaran, 2009).

In order to examine the relationship between the influencing factors with tourists' intention, researchers proposed to use multiple regression analysis to analysis the collected data. Multiple-regression was also used to examine the relationship between influencing factors and customer retention which were measured using interval scale. The relationship is considered as significant with the p-value of less than 0.05 (Malhotra, 2010). Besides, Beta coefficient value was also referred to identify the contribution of individual influencing factors towards the intention to visit Malaysia. Meanwhile, the adjusted R^2 was utilized to explain the variance in tourists' intention to visit Malaysia resultant of the influencing factors.

Implications and conclusion

Overall, those identified belief outcomes in this model enable the practitioners in the medical industry to promote outbound medical tourism in Malaysia through publicity. In particular, advertising that emphasizes unique treatments, medical practices, and services, together with images that evoke indulgence and trust, would promote the visits. Also, having developed some facets of horizontal integration—such as resorts with services integrate with medical treatment centres, and institutions with healthy food outlets and/or institutions with shopping outlets in one complex and advertising them as tourist attractions—may increase the positive attitudes. Providing high quality care and medical services as needed by foreign tourists, policies regarding licensing procedures, and regulations such as for the approval of new technologies, treatments, and professionalism have to be in place as the fundamental components. Recognizing the role of referent groups in a foreign tourist's decision making to travel to Malaysia for medical treatment, it is essential for institutions and tourist authorities to understand and attempt to influence positive word-of mouth reputations. Thus, tourists' feedback through a formalised market research on before or after visiting Malaysia would be able to contribute for improved marketing strategies in the tourism industry. Also, it implies that active publicity for medical tourism has to be planned in cooperation with professional bodies such as "The National Committee for the Promotion of Heath Tourism in Malaysia".

To conclude, this study attempted to identify belief items as stimulus factors influencing on intention formation to travel to a specific destination for medical treatment and adopted human behavioural theory to measure the intention to likely perform such actions. The role of belief items and the relationship with three predictive construct, such as attitude, subjective norm and perceived behavioural control provides greater correspondence between measures and effectiveness of the proposed TPB model to examine the medical tourism intention. The focus of the level of specificity of the beliefs corresponded well with the specificity of constructs measured in this particular study setting (Fishbein & Ajzen, 1975). This adds a contribution to literature in the medical tourism field, reshaping the definition of medical tourism and having a more inclusive view in medical treatment highlighting the conceptual value of this study. In addition, the moderating variable of familiarity with travel destination was added to enhance the prediction tourists' intention to visit Malaysia for medical treatment purposes. Overall, this study contributed to extending our understanding of foreign tourists' likelihood to travel abroad for medical treatment. Further, this study attempts to serve as a launching point for others to generate further research in the medical tourism field and for industry related practitioners to suggest a direction in developing marketing strategies for targeting the foreign tourists for medical treatment aboard purposes.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

262

References

Alam, S. S., & Sayuti, N. M. (2011). Applying the Theory of Planned Behavior (TPB) in halal food purchasing. *International Journal of Commerce and Management*, *21*(1), 8-20.

Alba, Joseph W. and J. Wesley Hutchinson (1987), "Dimensions of Consumer Expertise." *Journal of Consumer Research,* 13 (March), 411-454

Ajzen, I. (1991). The theory of planned behavior.*Organizational behavior and human decision processes*, *50*(2), 179-211.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ:Prentice-Hall

Ajzen, I., & Madden, T. (1986). Prediction of goal-directed behavior: Attitude, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology*, *22*(5), 453–474.

Bagozzi, R. P., Gurhan-Canli, Z., & Priester, J. R.(2002). *The social psychology of consumer behavior*. Buckingham, United Kingdom: Open University Press.

Bennett, M., King, B., & Milner, L. (2004). The health resort sector in Australia: A positioning study. *Journal of Vacation Marketing*, *10*(2), 122-137.

Biswas, Abhijit (1992). 'The Moderating Role of Brand Familiarity in Reference Price Perceptions." *Journal of Bu.'iiness Research,* 25 (3), 251-262.

Chang, M. K. (1998). Predicting unethical behavior: Acomparison of the theory of reasoned action and theory of planned behavior. *Journal of Business Ethics*,*17*(16), 1825–1834.

Chee, H. L., (Jan, 2007). Medical Tourism in Malaysia: International Movement of Healthcare Consumers and the Commodication of Healthcare. Asia Research Institute Working Paper No. 83

Cheng, S., Lam T., & Hsu, C. H. C. (2006). Negative world-of-mouth communication intention: Anapplication of the theory of planned behavior. *Journal of Hospitality and Tourism Research*, *30*(1),95–116.

Chong, W. Y., Boey, T. S., & Vathsala, N. (2005). Promoting health tourism in Malaysia. P*aper presented at the 3rd APacCHRIE conference, Kuala Lumpur*.

Conner, M., & Abraham, C. (2001). Conscientiousness and the theory of planned behavior: Toward a more complete model of the antecedents of intentions and behavior. *Personality and Social Psychology Bulletin*, *27*(11), 1547-1561.

Connell, J. (2006). Medical tourism: sea, sun, sand and. surgery. Tourism Management, 27(6), 1093e1100.

Cook, P. S. (2010). Constructions and experiences of authenticity in medical tourism: The performances of places, spaces, practices, objects and bodies. *Tourist Studies*, *10*(2), 135-153.

Crompton, J. L. (1979). An assessment of the image of Mexico as a vacation destination and the influence of geographical location upon that image. *Journal of Travel Research, 17*(4), 18 - 23.

Eagry, A. H., & Chaiken, S. (1993). *The psychology of attitudes.* Fort Worth, TX: Harcourt Brace Jovanovich.

Eccles, M. P., Hrisos, S., Francis, J., Kaner, E. F., Dickinson, H. O., Beyer, F., & Johnston, M. (2006). Do self-reported intentions predict clinicians' behaviour: a systematic review. *Implement Sci*, *1*(1), 28.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

263

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Boston: Addison-Wesley.

Fodness, D., & Murray, B. (1997). Tourist information search. *Annals of Tourism Research*, 24(3), 503 – 523.

Godin, G., & Kok, G. (1996) The theory of planned behavior: A review of its applications to health-related behaviors. *American Journal of Health Promotion*, *11*(2), 87–98.

Goodrich, J. N., & Goodrich, G. E. (1987). Health care tourism—An exploratory study. *Tourism Management*, *46*(3), 217–222.

Gursoy, D., & McCleary, K. W. (2004). An integrative model of tourists' information search behavior. *Annals of Tourism Research, 31*(2), 353 - 373.

Han, H., Hsu, J. & Sheu, C. (2009). Application of the theory of planned behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, *41*(3), 1–10.

Han, H., Hsu, L. T. J., & Sheu, C. (2010). Application of the theory of planned behaviour to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, *31*(3), 325-334.

Han, H., & Hwang, J. (2013). Multi-dimensions of the perceived benefits in a medical hotel and their roles in international travelers' decision-making process. International Journal of Hospitality Management, 35, 100e108.

Hee, S. P. (2000). Relationships among attitudes and subjective norm: Testing the theory of reasoned action cultures. *Communication Studies*, *51*(2), 162–175.

Hu, Y., & Ritchie, J. R. B. (1993). Measuring destination attractiveness: A contextual approach. *Journal of travel Research, 32*, 25 - 32.

Hunter, W. C. (2007). Articles: Medical Tourism: A New Global Niche. *International Journal of Tourism Sciences*, *7*(1), 129-140.

Lam, T., & Hsu, C. H. C. (2004). Theory of planned behavior: Potential travelers from China. *Journal of Hospitality and Tourism Research*, *28*(4), 463–482.

Lam, T., & Hsu, C. H. C. (2006). Predicting behavioral intention of choosing a travel destination. *Tourism Management*, *27*(4), 589–599.

Lee, M., Han, H., & Lockyer, T. (2012). Medical Tourism—Attracting Japanese Tourists For Medical Tourism Experience. *Journal of Travel & Tourism Marketing*, *29*(1), 69-86.

Malaysia aims to break into medical tourism market in big way - Latest - New Straits Times http://www.nst.com.my/latest/malaysia-aims-to-break-into-medical-tourism-market-in-big-way-1.496487#ixzz30KoVsL2M

Malhotra, D. (2010). "Sunday Effect" on pro-social behavior. *Judgment and Decision Making*, *5*(2), 138-143.

Malaysia health care council. (2013). Retrieved August 1, 2014, from http://www.mhtc.org.my/en/statistics.aspx

Milman, A., & Pizam, A. (1995). The role of awareness and familiarity with a destination: The Central Florida case. *Journal of Travel Research, 33*(3), 21 - 27.

Ormond, M. (2011). Shifting subjects of health‐care: Placing 'medical tourism' in the context of Malaysian domestic health‐care reform. *Asia Pacific Viewpoint*, *52*(3), 247-259.

Otley, T. (2007). Patients without borders. *Business Traveller*, *11*, 36-37.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

264

Perkins, M., Jensen, P., Jaccard, J., Gollwitzer, P., Oettingen, G., Pappadopulos, E., & Hoagwood, K. (2007). Applying theory-driven approaches to understanding and modifying clinicians' behavior: What do we know?.*Psychiatric Services*, *58*(3), 342-348.

Phelps, A. (1986). Holiday destination image- the problem of assessment. *Tourism Management*, 7(3), 168 – 180.

Quintal, V. A., Lee, J. A., & Soutar, G. N. (2009).Risk, uncertainty and the theory of planned behavior: A tourism example. *Tourism Management*, *31*(6),797–805.

Reddy, S.G., York, V. K.,& Brannon, L.A. (2010). Travel for treatment: students' perspective on medical tourism. International Journal of Tourism Research, 12(5), 510e522.

Ryu, K., & Jang, S. (2006). Intention to experience local cuisine in a travel destination: The modified theory of reasoned action. *Journal of Hospitality and Tourism Research*, *30*(4), 507–516.

Sekaran, U. (2009). *Research methods for business: A skill building approach*. John Wiley & Sons.

Singh, P. K. (2008). *Medical Tourism: Global Outlook And Indian Scenario*. Kanishka publishers.

Sparks, B. (2007). Planning a wine tourism vacation? Factors that help to predict tourist behavioral intentions. *Tourism Management*, *28*, 1180–1192.

Swan, J. (1981). Disconfirmation of expectations and satisfaction with a retail service. *Journal of Retailing*, *57*(3),49–66.

Trafimow, D., & Finlay, K. A. (1996). The importance of subjective norm of minority of people: Between subjectsand within-subjects analyses. *Personality and Social Psychology Bulletin*, *22*(8), 820–829.

Vogt, C. A., & Fesenmaier, D. R. (1998). Expanding the functional information search model. *Annals of Tourism Research*, 25(3), 551 – 578.

Weil, A. (2009). Medical tourism: It's a real and growing trend. Arizona Daily Star. Retrieved from http://azstarnet.com/lifestyles/food-and-cooking/article-7f00ec9a-261c-5e6f80alc8bdddcaac00.html

Yap, J. Y. C. (2007, June 1). Medical tourism and Singapore. International Hospital Federation Reference Book, pp: 25 – 26.

Weil, A. (2009, March 11). Medical tourism: It's a real and growing trend. Arizona Daily Star. Retrieved from http://azstarnet.com/lifestyles/food-and-cooking/article_7f00ec9a-261c-5e6f-80a1-c8bdddcaac00.html

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

265

Are Malaysians Ready to Purchase 1Malaysia Brand? A Conceptual Exploration

Gengeswari, K., Padmashantini, P., Jeffrey Yu Kern Leong, Chong Swit Ye, Beh Joe Ee and Wong Jin Yang

Faculty of Business, Universiti Tunku Abdul Rahman, Perak, cocacola@1utar.my

Abstract

Though the "private label brand" (PLB) merchandises have become the typical household items worldwide, it has received rather a lukewarm response from consumers in Malaysia. This is the typical dilemma faced by the operators of Kedai Rakyat 1 Malaysia (KR1M) which exclusively sells 1 Malaysia brand merchandises. Despite its strong ties with the Government, accompanied with its below-market priced and fair quality merchandises, there are indeed many KR1M stores which are doing poorly due to the poor acceptance by the public where these shops have been recommended to close down their operations. As other PLB merchandises, 1Malaysia merchandises are often associated as substandard quality and cheap merchandises. Such association has severely affected the brand image of 1Malaysia merchandises and hence enhances the consumers' perceived risks towards the purchase intention of 1Malaysia merchandises. In line with this, this study attempts to explore the impact of perceived risks towards the purchase intention of 1Malaysia merchandises. This study is expected to enlighten the relevant operators and authorities on the types of perceived risks that affect the purchase intention of 1Malaysia merchandises. Besides, this study proposes mall-intercept survey to be carried out to collect data and Hierarchical Regression Analysis to analyze the collected that. This study ends with discussions on the possible managerial implications that would be relevant to the KR1M operators and Government bodies.

Keywords: Private label brand, purchase intention, perceived risks, 1Malaysia

BACKGROUND OF STUDY

Though the "private label brand" (PLB) merchandises have become the typical household items worldwide, it has received rather a lukewarm response from consumers in Malaysia (Siohong & Kean, 2013). To date, there are many PLBs within Malaysia retailing sector; of these PLBs, 1Malaysia is considered as a unique PLB due to its strong association and backup from Malaysian Government ("Mydin continues to carve a strong niche", 2013). It also demonstrates the strategic alliances of Government with retailers from the private sector (Tenth Malaysia Plan, 2010).

As the brainchild of Government, the key role of Kedai Rakyat 1Malaysia (KR1M; can be literally referred as 1Malaysia Citizen Shop) is to offer cheap priced yet quality merchandises in order to help consumers in the low income group particularly within urban areas in dealing with the rising living costs ("Najib: Translate 1Malaysia concept to benefit people", 2013; Mokhtar & Mustaza, 2012).

The goods offered in KR1M are 30%-50% cheaper compared to other similar stores where it was demonstrated that purchases of 1Malaysia merchandises would easily reduce 20%-30% of the household monthly grocery bills (Haszliza & Muhammad; Kamarudin & Awang, 2011; Ameer, 2011). On the other hand, KR1M emphasizes on products produced by small and medium enterprises (SMEs). Hence, SMEs can easily expand its business operation over the time through their product placement in KR1M

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

266

(Nambikei, 2014). Accordingly, Government capitalizes this opportunity as a platform to support and facilitate the growth of SMEs ("Addressing the rising cost of living", 2013).

Though the launching of new KR1M stores is steadily increasing annually (QiShin, 2013), record also indicates that there are many poor performing KR1M stores which are suffering losses due to poor acceptance by the public ("KR1M shops will die a natural death", 2011). Consequently, industry analysts have called for the closure of KR1M operation in order to avoid the further waste of funds which otherwise can be allocated to other priority areas such as education, healthcare and security (Teh, 2011).

1Malaysia merchandises sold at KR1M are still associated with substandard quality and considered as the second-rate alternatives for households in Malaysia (GTP annual report, 2013; "KPDNKK will consider suggestions only locals shop at KR1M", 2013). Such inferior perception is believed to stem from the consumers' perceived risks associated with PLBs which affect their buying decision (Diallo, 2012). Yap, Leong and Weng (2012) had further elaborated that understanding on the consumer purchase intention is only possible when firm considers the possible risks that its brand carries from the perspective of its target customers. The affect of consumers' perceived risks would be highly noticeable when customers encounter the undesirable consequences from their purchases (Lim, 2003). Retailers nowadays are too cautious on dwindling the consumers' perceived risks on their merchandises particularly the PLB merchandises as it greatly affects their brand image and subsequently their overall financial performance (Yap et al. 2012).

Though there are numerous past studies investigating on the different dimensions of PLB, investigation on the Government-linked PLB such as 1Malaysia is still lacking far behind as compared to the retailer-oriented PLBs excluding the endeavor by Haszliza Hassan and Muhammad Sabbir Rahman (Hasliza & Muhammd, 2013; 2012). It is also noteworthy to note that their investigation was more on the comparison of local and national brand from the perspective of brand assessment. This signals that there is a need for a comprehensive investigation on the 1Malaysia PLB. In order to have a fundamental understanding on the 1Malaysia PLB, this study aims to conceptually explore its purchase intention by taking into account the influences from consumers' perceived risks.

CONCEPTUAL CONNECTION

Relevance to Theory of Planned Behavior

Theory of planned behavior (TPB) has been adopted in this study to explain the role of perceived risks with regards to the purchase intention of 1Malaysia PLB. TPB established a connection across varied sources of influence that form an intention and hence behavior (Ajzen, 1991).TPB views that human behavior is guided by 3 different types of beliefs as the following (Ajzen, 1991):
i)   beliefs on the likely outcome of certain behavioral action or decision and act accordingly based on the evaluation of those outcome (behavioral beliefs → attitude towards the behavior);
ii)   beliefs about the social norm and expectation, and the degree of motivation to comply with them (normative beliefs → subjective norm); and
iii) beliefs that takes the consideration of various factors that are involved with the expression of behavior and the perceived degree of control over these factors (control beliefs → perceived behavioral control).

The constructs of favorable attitude towards behavior, subjective norm and perceived behavioral control eventually form a behavioral intention. Since the actual behavior exerted may differ from an individual intention due to the current situational variable, the theory has further established that perceived behavioral control as a substitute for an actual behavioral control. It implies that the behavioral intention that drives to the final exerted behavior is guided by perceived control of behavior.

The purchase intention of consumer on 1Malaysia PLB can be explained with reference to TPB whereby consumers usually consider various factors and allocate different weightage for each factor based on their beliefs which ultimately lead to the formation of their purchase intention. Every belief

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

267

mentioned in the TPB weighs the pros and cons of consumers' action where the cons i.e. perceived risks will be attention of this study (Dursun, Kabadayı, Alan & Sezen, 2011).

Purchase Intention of PLB

Intention stems from motivational factors which influence the behavior and results in its performance (Ajzen, 1991). Behavioral intention is greatly known as a promise of customers to be loyal with the firms (Maria & Loureiro, 2014). There are two types of behavioral intentions known as favorable and unfavorable behavior intentions where these both intentions subject to the customer's satisfaction which subsequently affects the actual behavior (Alexandris, Dimitriadis & Markata, 2002). It is a must for today's retailers in influencing their target customers to form a favorable behavior as these customers are known for their continuous patronage and tendency to spread positive word of mouth about the retailers' merchandises (Arnould, Price & Zinkhan, 2014; Othman, Salehuddin, Zahari & Radzi, 2013). On the other hand, purchase intention is an attempt, objective and conscious plan of a consumers' effort to purchase a product or service (Lu, Chang & Chang, 2014; Dodds & Monroe, 1991). Besides, it is also sometimes referred as the customer's intention to repurchase (Assael, 2004).

PLB is indeed an unfamiliar phenomenon in the Asian market where in Malaysia, it has only 2.3% market share (Nielson, 2010). On the contrary, some past studies discovered that the popularity of store brands in Malaysia is steadily growing due to the enhanced purchase intention towards PLB of specific retailers where the retailers' ability in offering broad choices of PLB merchandises is claimed to be the underlying factor for the upward trend (Abdullah, Ismail, Abdul Rahman, Mohd Suhaimin, Safie, Mohd Tajuddin, Noor Armia, Nik Mat, Derani, Samsudin, Adli Zain & Sekharn, 2012; Diallo, 2012). Past studies also suggested that the purchase intention towards PLB merchandises is essentially driven by the low pricing strategy and hence it greatly appeals to the price conscious customers as it reduces the customers' perceived financial risks (Kaur, 2013; Ailwadi, 2001; Burton, Lichtenstein, Netemeer, 1998).

Perceived Risks

Perceived risk is usually referred as the uncertainty of a consumer before or during the purchase process of a product or service (Stone & Gronhung, 1993). Perceived risk is also the negative value associated with the purchase of brand or product (Dunn, Murphy & Skelly, 1986). According to Wu, Yeong & Chien et al. (2011), consumers will have uncertainty towards a product or service before the purchase due to some kind of expected loss in their mind and it will cause the consumers to be unhappy. The higher the perceived risks, the more unlikely the consumers would purchase the products (Cho, 2010). Siti, Pan and Mohaini (2010) claimed that the perceived risk has become a crucial determinant for the purchase intention of PLB merchandises. Typically, PLB is believed to suffer from negative association particularly when it is being compared with the manufacturer brands where consumers rather choose the manufacturer brand which they believe it would reduce the associated risks (Sandra & Durdana, 2012). Perceived risks essentially consist of social risk, financial risk, physical risk and performance risk (Kushwaha& Shankar, 2013; Keh & Sun, 2008; Bart, Shankar, Sultan & Urban, 2005; Laroche, McDougall, Bergeron & Yang, 2014).

Development of Research Hypotheses

(i) Social Risks

According to Yap et al. (2012), social risk is defined as the uncertainty of a person to purchase a product by taking into account on others' views. Social risk may result in the embarrassment when the choices made affect the consumers to lose their self esteem within their social circle (Kushawaha & Shankar, 2013). This is particular among consumers when they purchase the low priced products (Yusuf, Fatih & Hayrettin, 2013) and it will have impact on the purchase intention towards the PLB merchandises (Glynn & Chen, 2009). Meanwhile, Steiner (2004) claimed that consumers would be willingly purchase PLB merchandises if it has adequate recognition. This is in line with the past studies which claimed that consumers tend to purchase national brand instead of PLB merchandises in order to obtain recognition

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

268

from their social circles (Kushawaha& Shankar, 2013; Coelho, Meneses & Moreira, 2008; Murray & Schlacter, 1990). Therefore, following hypothesis is proposed:

H1: There is a significant relationship between the social risks towards the purchase intention at KR1M.

(ii) Financial Risks

Financial risk is known as economic and monetary risks (Lim, 2003). From the perspective of customers, financial risk is the financial loss that may disappoint the customers such as lack or absence of warranty as well as the financial loss due to the high maintenance or hidden costs (Kushwaha & Shankar, 2012; Sweeney, 1999). Financial risk is also associated with the insecure payment transaction which will result into monetary loss for the consumers (Chang & Tseng, 2013; Forsythe & Shi, 2006). Other than that, financial risk will incur when the expectation of product performance does not match with the product or the product is overpriced or it can be find at the lower price in some other places (Yusuf et al. 2013). Burton et al. (1998) claimed that financial risk is typically associated with PLB merchandises due to their low pricing strategy where consumers usually associate the brand with substandard quality merchandises. Nevertheless, during unfavorable economic condition, consumers would willingly switch to low priced PLB merchandises in order to save their expenses (Glynn & Chen, 2009; Shannon & Mandhachitara, 2005). It implies that the perceived financial risk will increase in line with increases in the price of PLB merchandises (Sethuraman & Cole, 1999) and it will subsequently reduce consumers purchase intention (Chang & Tseng, 2013; Tih & Lee, 2013). Therefore, following hypothesis is proposed:

H2: There is a significant relationship between the financial risks towards the purchase intention at KR1M.

(iii) Physical Risks

Physical risk is always referred as the possibility of a person to have damage of health or physical injury due to the purchase of a product or service (Laroche, McDougall, Bergeron & Yang, 2014; Chang & Tseng, 2013). Meanwhile, Yusuf et al. (2013) also attributed physical risk as the possibility that the consumer may be harmed by the product or service purchased which raises the consumer's health and physical concern. Physical risk is seemed to be higher during the purchase decision of unfamiliar branded merchandises due to the perceived insecurity (Sandra & Durdana, 2012). Besides, numerous past studies suggested that perceived physical risks would certainly affect the purchase intention of PLB particularly during the purchase of baby care and food-based merchandises (Sandra &Durdana, 2012; Yap et al. 2012; Glynn & Chen, 2009; Rajeev & Indrajit, 2000). Therefore, following hypothesis is proposed:

H3: There is a significant relationship between the physical risks towards the purchase intention at KR1M.

(iv) Performance Risks

Performance risk is about the loss that occurs when the product fails to perform as per the customers' expectation (Mitchell, 1999). Performance risk is likely related with the functionality and usefulness of a product (Lim, 2003). Malaysian often has a perception that the products that made in local have low quality in terms of its function and usefulness as compared to the brands from overseas (Bedi, 2009). In fact this is the misconception among Malaysians as the products produced in Malaysia are having equal quality where products are qualified to be exported to the developed countries (Lew & Sulaiman, 2014). Product quality is much more important than the price when it comes to the PLB (Monroe, 2003; Boch & Banerji, 1993; Sethuraman, 1992). Consumers will be confident on purchasing PLB when they can obtain the satisfactory performance from PLB merchandises (Baltas, 1997). Performance risk will influence the purchase intention of PLB as the consumers' awareness on product quality and related aspects will directly influence the acceptance of PLB merchandises (Lew & Sulaiman, 2014; Wu, Yeh & Hsiao, 2011; Glynn & Chen, 2009; Rajeev & Indrajit, 2000). Therefore, following hypothesis is proposed:

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

269

H4: There is a significant relationship between the performance risks towards the purchase intention at KR1M.

Proposed Research Framework

Based on the reviews of past studies, the following framework (Figure 1) is developed to illustrate the influences of perceived risks towards the purchase intention 1Malaysia PLB.
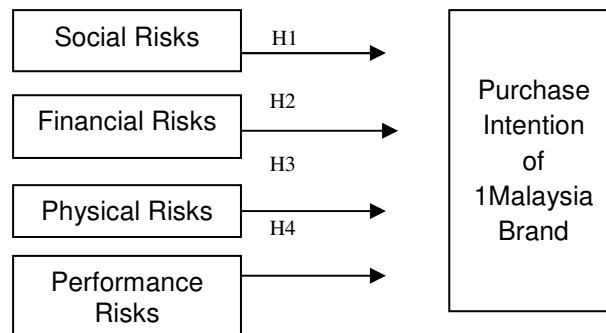
Figure 1: Proposed Research Framework

PROPOSED RESEARCH METHODS

This study will be employing the mall-intercept survey approach to distribute the questionnaires among the respondents. The survey will be distributed at the Kedai Rakyat 1Malaysia stores located at Kelana Jaya. This particular outlet is selected considering it is the pioneer KR1M store in Malaysia and it caters the actual target market of KR1M as claimed by the Government e.g. urban citizens. Judgmental sampling technique will be employed to recruit the potential respondents where only customers who had prior purchase experience at KR1M will be considered in this study. This study will employ Hierarchical Regression Analysis to examine the impact of perceived risks on the purchase intention of 1Malaysia merchandises as well as to explore the moderation impact of household income level towards the association between respondents' perceived risks and purchase intention. The examination on household income is deemed necessary as to ascertain the differences in the views among low, middle and high income earners towards 1Malaysia. Such varied views are necessary to understand in order to ensure that KR1M reaches its target audience i.e. low income earners in urban area.

CONCLUSION AND IMPLICATIONS

This study aims to explore the conceptual connection between consumers' perceived risks and their purchase intention towards 1Malaysia merchandises. This study has adopted Theory of Planned Behavior to illustrate the underlying association between perceived risks and purchase intention. This study proposes that four types of perceived risks namely performance risks, financial risks, social risks and physical risks would affect the consumers' purchase intention towards PLB merchandises. As a conceptual, this study proposes an apt approach to recruit target respondents and statistical technique that could be used to analyze the collected data.

This study is expected to highlight the likely perceived risks that would adversely affect the consumers' purchase intention towards 1Malaysia merchandises. This diagnosis would then address the need for KR1M to implement appropriate business strategies. Selection of suitable advertisement theme, change in the product packaging as well as reshuffling on the distribution strategies and unique pricing strategy are among others that Mydin (the caretaker of KR1M) should consider in devising a business plan that would assist KR1M in reviving their diluting brand image. Accordingly, Mydin can develop trainings and workshops for the KR1M operators and their employees to ensure that the proposed

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

270

business strategies are being materialized in the intended manner. The coordination and cooperation of both Mydin and KR1M operators are very vital in order to understand and hence tackle the customers' stereotype towards the 1Malaysia merchandises.

This study would highlight that 1Malaysia merchandises are also suffering from the stereotype associated with PLB even though 1Malaysia is not retailer-associated instead Government-linked merchandises. This would highlight Government particularly the Ministry of Domestic Trade, Co-operatives and Consumerism to change the negative perception held towards 1Malaysia merchandises. Instead of hiring celebrity or common people to endorse 1Malaysia merchandises, endorsement by top ranking Government officials and utilization of 1Malaysia merchandises in any Government-related events are among strategies that Government should consider in enhancing the consumers' confidence towards the 1Malaysia merchandises and hence the brand image of KR1M. Failure to enhance the consumers' confidence and brand image of 1Malaysia merchandises would ravage the Government's efforts spent on the KR1M program. This is because a customer who negatively perceive 1Malaysia brand would have tendency to spread similar remarks to his/ her social circles; if this trend persists, it would definitely affect the financial performance and hence overall performance of KR1Ms.

Besides, this study is expected to demonstrate the application of TPB to examine the customers' purchase intention based on the perceived risks instead of conservative constructs namely customers' behavioral, normative and control beliefs. Future researchers shall adopt the proposed application in other studies within different field or context.

LIST OF REFERENCES

Abdullah, R., Ismail, N., Abdul Rahman, A.F., Mohd Suhaimin, M., Safie, S.K., Mohd Tajuddin, M. T. H., Noor Armia, R., Nik Mat, N.A., Derani, N., Samsudin, M.M., Adli Zain, R. & Sekharan Nair, G.K. (2012). The Relationship between Store Brand and Customer Loyalty in Retailing in Malaysia. *Asian Social Science*, 8(2), 171-184.

About Kedai Rakyat 1Malaysia (2014). Retrieved August 1, 2014 from http://www.kedairakyat1malaysia.com.my/en/about-us.

"Addressing the rising cost of living" (2013). Retrieved May 28, 2014 from http://www.pemandu.gov.my/gtp/annualreport2012/NKRAs-@-Addressing_Cost_of_Living.aspx

Ajzen, I. (1991). Organizational Behavior and Human Decision Processes. The Theory of Planned Bahavior, 50,, 179-211.

Ameer Ali Mydin (2011) MYDIN's response to 'Kedai Rakyat pulling a fast one'. Retrieve May 28, 2014 from http://www.kedairakyat1malaysia.com.my/en/mydins-response-to-kedai-rakyat-pulling-a-fast-one.

Ailawadi K.L (2001) The retail power-performance conundrum: What have we learned? *Journal of Retailing*. 77, 299–318.

Baltas, G. (1997). Determinants of store brand choice: a behavioural analysis. *Journal of Product & Brand Management*, 6(5), 315-332.

Bart, Shankar, Sultan & Urban, (2005) Are the Drivers and Role of Online Trust the Same for All Web Sites and Consumers? A Large-Scale Exploratory Empirical Study. *Journal of Marketing,* Vol. 69, 133–152.

Bedi, R. S. (2009). Save money, buy Malaysian. *The Star Online*. Retrieved July 23, 2014, from http://thestar.com.my/news/story.asp?file=/2009/2/1/focus/3160846&sec=focus.

Budget 2014: Support for SME plans (2013). Retrieved August 14, 2014 from http://www.thestar.com.my/Business/Business-News/2013/10/26/Support-for-SME-plans-Hafsah-says-activities-will-help-to-achieve-goals/

Burton, S., Lichtenstei. , D. R., Netemeye, R. G., & Garretson, J. A. (1998), A Scale for Measuring Attitude Toward Private Label Products and an Examination of Its Psychological and Behavioral Correlations. *Journal of the Academy of Marketing Science*, 26(4), 293-306. Retrieve august 9, 2014 from http://link.springer.com/article/10.1177%2F0092070398264003#page-2

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

271

Diallo, M.F. (2012) Effects of store image and store brand price-image on store brand purchase intention: Application to an emerging market. *Journal of Retailing and Consumer Services*,19, 360–367.

Dodds, W.B., Monroe, K.B., Grewal, D. (1991) Effects of price, brand and store information on buyers' product evaluations. *Journal of Marketing Research,* 28(3), 307–319. Retrieve August 9, 2014 from http://student.bus.olemiss.edu/files/conlon/others/Others/Camera/Product%20Evaluation/Dodds%20et%20al.%201991.pdf.

Eric J. Arnould, George M. Zinkhan, Linda Price. (2004). *Consumers, 2/e.* McGraw-Hill Higher Education.

Forsythe, S.M. and Shi, B. (2003). Consumer patronage and risk perceptions in internet shopping. *Journal of Business Research*, 56(11), 867-875.

GDP annual report (2013). Retrieve June 13, 2014 from http://www.epu.gov.my/documents/10124/2257e64f-b08d-41b7-bed0-b6e6498c38a3.

H. Assael, Consumer Behavior: a Strategic Approach, (Boston: Houghton Mifflin Company, 2004). http://www.ijbmi.org/papers/Vol(2)1/Version_3/D213038.pdf.

Hasliza Hassan and Muhammad Sabbir Rahman (2012) A Conceptual Study of National Brand towards Hypermarket Brand Extension through Brand Asset Valuator. I*nternational Conference on Economics, Business Innovation IPEDR, 38, 192-194.*

Hasliza Hassan and Muhammad Sabbir Rahman (2013) The Value of National Brand and Local Brand, *Journal of Basic and Applied Scientific Research*, 3(3), 784-786.

Hoch, S.J. and Banegi, S. (1993). When do private label succeed? *Slogan management review*. 57-67

Ili Liyana Mokhtar And Masami Mustaza (2012) 3 rules for 1Malaysia products. Retrieve May 28, 2014 from http://www2.nst.com.my/nation/3-rules-for-1malaysia-products-1.107581/facebook-comments-7.153339

Dursun, I., Kabadayı, E.T., Alan A.K. & Sezen, B. (2011). Store Brand Purchase Intention: Effects of Risk, Quality, Familiarity and Store Brand Shelf Space, Procedia. In Q. F. Store Brand Purchase Intention: Effects of Risk, Store Brand Purchase Intention, 1190-1200. Retrieved from http://www.sciencedirect.com/science/article/pii/S1877042811016612

Keh Hean Tat & Sun Jin (2008) The Complexities of Perceived Risk in Cross-Cultural Services Marketing. *Journal of International Marketing*, 16(1), 120-146.

Konstantinos Alexandris, Nikos Dimitriadis, Dimitra Markata, (2002) "Can perceptions of service quality predict behavioral intentions? An exploratory study in the hotel sector in Greece", *Managing Service Quality*, 12 (4), 224 – 231.

KR1M shops will die a natural death (2011). Retrieve May 28, 2014 from http://www.freemalaysiatoday.com/category/opinion/2011/11/16/kr1m-shops-will-die-a-natural-death

Kurniawati Kamarudin & Siti Fatihah Awang (2012) ,KR1M Benefits Consumers. Retrieve May 28, 2014 from http://www.bernama.com/bernama/v3/printable.php?id=642222

Kushwaha T. & Shankar V. (2013) Are Multichannel Customers Really More Valuable? The Moderating Role of Product Category Characteristics. *Journal of Marketing*. Retrieve August 3, 2014 from http://www.venkyshankar.com/wp-content/uploads/2013/02/Kushwaha-and-Shankar-JM-2013.pdf

Laroche, M.& McDougall, G.H.& Bergeron, J.& Yang, Z., (2014) Exploring how intangibility affects perceived risk, *Journal of Service Research*, 6(4), 373-389.

LC. Lu & WP. Chang, HH & Chang (2014) Consumer attitudes toward blogger's sponsored recommendations and purchase intention: The effect of sponsorship type, product type, and brand awareness. *Computers in Human Behavior,* 34, 258–266.

Manjit Kaur (2013) Kedai Rakyat 1 Malaysia products help consumers save more money. Retrieve May 28, 2014 from http://www.thestar.com.my/News/Community/2013/04/20/Kedai-Rakyat-1Malaysia-products-help-consumers-save-more-moneyMbaye Fall

Mark G. Dunn, Patrick E. Murphy & Gerald U. Skelly (1986) Research Note: The Influence of Perceived Risk on Brand Preference for Supermarket Products. *Journal of Retailing*, 62(2), 204-216.

Murray K.B. and Schlater J.L. (1990), The impact of services versus good on consumers' assessment of perceived risk and variability. *Academy of Marketing Science*, 18, 1, 51-66.

Mydin continues to carve a strong niche (2013) Retrieved May 28, 2014 from http://www.theborneopost.com/2013/01/30/mydin-continues-to-carve-a-strong-niche/

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

272

Najib: Translate 1Malaysia concept to benefit people (2013). Retrieved May 29, 2014 from http://www.thestar.com.my/News/Nation/2012/07/14/Najib-Translate-1Malaysia-concept-to-benefit-people/

Nambikei (2012) KR1M – A privilege for all Malaysians. Retrieved May 28, 2014 from http://www.nambikei.com/2012/07/kr1m-a-privilege-for-all-malaysians/

Nielsen, A.C., (2010). Retail and shopper trends Asia Pacific 2010. Retrieved June 28, 2014 from http://sg.nielsen.com/site/documents/2010RetailandShopperTrends2010.pdf

Othman, Z., Salehuddin,M., Zahari, M. & Salleh, M.R. (2013) Customer Behavioral Intention: Influence of service delivery failures and service recovery in Malay restaurants. *Proceeding - Social and Behavioral Sciences*, 105, 115 – 121. Retrieve May 24, 2014 from http://ac.els-cdn.com/S1877042813043887/1-s2.0-S1877042813043887-main.pdf?_tid=1a954776-10ec-11e4-888a_00000aacb35f&acdnat=1405956877_53ff0537c61a499e269c0e1194d9b975/

QISHIN TARIQ (2013) Government to maintain food subsidies. Retrieve May 28, 2014 from http://www.thestar.com.my/News/Nation/2013/05/19/Govt-to-maintain-food-subsidies-Ministry-committed-to-helping-Malaysians-cope-with-rising-cost-of-li/

Rajeev Batra & Indrajit Sinha (2000) Consumer-Level Factors Moderating The Success Of Private Label Brands. *Journal of Retailing*, 76 (2), 175-191.

Robert N. Stone, Kjell Grønhaug, (1993) Perceived Risk: Further Considerations for the Marketing Discipline. *European Journal of Marketing*, 27(3), 39 - 50.

Sandra, D. and Durdana.0. (2012). Perceived risk influence on the consumer attitude to private labels in the product life cycle growth stage. *Economic and Journal Review*, 15(4), 267-291.

Sandra Maria Correia Loureiro (2014) The role of the rural tourism experience economy in place attachment and behavioral intentions. International Journal of Hospitality Management 40 (2014) 1–9. http://www.sciencedirect.com.libezp.utar.edu.my/science/article/pii/S0278431914000395

Shannon, R. & Mandhachitara, R. (August, 2005). Private - label grocery shopping attitudes and behaviour: A cross - cultural study. *Journal of Brand Management.*

Sethuraman, R. (1992). Understanding cross-category differences in private label shares of grocery products. Cambridge: *Marketing science institute*, 92-128.

Sethuraman, R. and Cole, C. (1999). Factors influencing the price premiums that consumers pay for national brands over store brands. *Journal of Product and Brand Management*, 8(4), 340-351.

Siohong Tih and Kean Heng Lee (2013) Perceptions and Predictors of Consumers' Purchase Intentions for Store Brands: Evidence from Malaysia. *Asian Journal of Business and Accounting,* 6(2). http://ajba.um.edu.my/filebank/published_article/6002/AJBA_4.pdf.

Siti Nurafifah Jaafar, Pan Ein Lalp, Mohaini Mohamed, n.d., Consumers' Perceptions, Attitudes and Purchase Intention towards Private Label Food Products in Malaysia. *Asian Journal of Business and Management Sciences*, 2(8), 73-90.

Steiner, R. (2004). The nature and benefits of national brand/ private label competition. *Review Of Industrial Organization*, 24(2), 105-127.

Sung-Eui Cho (2010) Perceived risks and customer needs of geographical accessibility in electronic commerce. *Electronic Commerce Research and Applications*, 9(6), 495–506.

Tenth Malaysia Plan. Putrajaya: The Economic Planning Unit Prime Minister's Department. (2010)

Teh Chi-Chang (2011) Kedai Rakyat 1Malaysia increases subsidies by RM10billion. Retrieve May 29, 2014 from http://wikisabah.blogspot.com/2011/11/kedai-rakyat-1msia-increases-subsidies.html

WU, P. C.S., Yeong, Y.Y.G. & Chieh, R.H. (2011). The effect of store image and service quality on brand image and purchase intention for private label brands. *Australian Marketing Journal,* 19(1), 30–39. http://www.sciencedirect.com.libezp.utar.edu.my/science/article/pii/S1441358210000844

Yap Sheau-Fen, Leong Sun May, Weng Yu-Ghee (2012). Store brand proness: Effects of perceived risk, quality and familiarity. *Australian Marketing Journal, 20 (1),* 48–58. http://www.sciencedirect.com.libezp.utar.edu.my/science/article/pii/S1441358211000930

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

273

Moderating Effects of Internal Counselling on Student Stress: Malaysian Accounting Students' Perceptions

M.Krishna Moorthy[a], Tengku Rahimah Binti Tengku Arifin[b] and Zam Zuriyati Binti Mohamad[c],

[a]*Universiti Tunku Abdul Rahman, Malaysia, (krishnam@utar.edu.my)*
[b]*Universiti Tunku Abdul Rahman, Malaysia, (rahimah@utar.edu.my)*
[c]*Universiti Tunku Abdul Rahman, Malaysia, (zuriyati@utar.edu.my)*

Abstract

Psychological stress among university students has been getting a lot of attention recently. Accounting students, who take more calculation papers, consider the course more stressful and often these students are sent for counselling. According to Lazarus's Cognitive theory, stress occurs when an individual fails to cope with the situation. Therefore, understanding the Malaysian accounting undergraduates' stress factors is essential in order to enhance the counselling services by the higher education institutions and also the tertiary education quality in Malaysia. Counselling is done by the higher education institutions in many areas like stressful feelings, self-defeating behaviours, low self-confidence, academic issues, getting along with others, decision-making problems, feelings of despair or anxiety, stress reduction and easing, time and task management, grief and loss. Thus counselling acts as a moderating factor between the stress factors and students' stress.This research proposes build up a research model for this purpose. This model will be useful for the private higher education institutions in Malaysia and to the Ministry of Higher Education to understand more on the stress factors and to improve the counselling process.

.

Keywords: Students' stress, counselling, behaviour, Malaysian Higher Education Institutions

INTRODUCTION

Psychological stress among university students has been getting a lot of attention recently. Accounting students, who take more calculation papers, consider the course more stress and often these students are sent for counselling. Research on student stress goes back at least half a century, to David Mechanic's 1962 book *Students Under Stress*, which was on graduate students. Leaving the family home, the undergraduate students feel intense pressure to obtain high grades with career aspirations, take final exams, try to establish a romantic/social life, pay high tuition fees and sometimes do part time job during the study period. Studies have proved that stress significantly affects the lifestyle and learning process of students. According to Lazarus's Cognitive theory, stress occurs when an individual fails to cope with the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

274

situation. Therefore, understanding the Malaysian undergraduates' stress factors is essential in order to enhance the counselling services by the higher education institutions and also the tertiary education quality in Malaysia.

Counselling is a method at which a counselor meets with students to enhance their self-understanding and personal development, to enable them to manage with their problems and stress, to smooth their adjustment to university life and to support them in making healthy life changes. Individual counselling also provides an opportunity to talk with a personal counselor in solving conflicts and problems, selecting major, managing crisis situations, taking decisions, and evolving better handling skills of the stressed students. Counselling is done by the higher education institutions in many areas like puzzling, distressed feelings, self-defeating behaviours, low self-confidence, academic problems, getting along with others, decision-making problems, feelings of despair or anxiety, stress reduction and easing, time and task management, sorrow and loss. Thus counselling acts as a moderating factor between the stress factors and students' stress.

This research proposes build up a research model for this purpose. This model will be useful for the private higher education institutions in Malaysia and to the Ministry of Higher Education to understand more on the stress factors and to improve the counselling process.

OBJECTIVES OF THE RESEARCH

- To identify the stress factors among Malaysian accounting students
- To investigate the relationship between the financial issues and stress among Malaysian accounting students
- To investigate the relationship between the academic issues and stress among Malaysian accounting students
- To investigate the relationship between the social support issues and stress among Malaysian accounting students
- To investigate the relationship between the time management issues and stress among Malaysian accounting students
- To investigate the relationship between the health issues and stress among Malaysian accounting students
- To investigate the moderating effect of counselling on the relationship between the stress factors and stress among Malaysian accounting students

LITERATURE REVIEW

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

275

LAZARUS'S COGNITIVE THEORY

Lazarus's Theory is developed by Richard Lazarus where cognitive appraisal means how individuals interpret their live events and their determination to cope with the events effectively (Wood & Wood, 2001). According to Lazarus's theory (as cited in Santrock, 2006), stress can be described as a relationship between an individual and an event that turned dangerous followed by the lack of ability to deal with the situation. Lazarus theory was used by Cheng (2009) to define stress as a mental or physical phenomena experienced by a person's cognitive appraisal due to the interaction between a person and its stressor. Besides, the theory is also used by Roy (2003) stating that stress does not occur due to events, however it arises due to individual's perception and reaction towards the events. Lazarus's model focuses on how people cope with stress (Wood & Wood, 2001). The human body might response in a same way to stress, but not everyone perceives the same event as stressful (Santrock, 2006).

In Lazarus theory, stress begins when one or more series of situation or event happens. The mind will begin a process of evaluation known as primary appraisal where the situation will be evaluated based on the possibility that it would potentially affect the well-being of an individual. The situation or event is perceived as stressful when there is harm or loss occurred, followed by the threat of potential harm and loss in the future, and challenges to be overcome (Wood & Wood, 2001). If the individual perceived that there is no threat on the situation or event then no stress will occur.

When a situation is perceived as threat in the primary appraisal then it will proceed further to secondary appraisal. Secondary appraisal is where individuals evaluate their own ability and determine how well they could use their ability and resources to control and cope with the events (Santrock, 2006). If the situation is within their control, then the stress brings positive effect, individuals will list out, evaluate and consider all other available options to find out which is the best to deal with the situation (Wood & Wood, 2001). However, it would be negative stress if there is inability and lack of resources to cope with the event. According to Lazarus theory stress level felt by a person is dependent on how adequate his resource is able to cope with the stressor. In other words, the four stressors would be the event being faced by the undergraduate, and the primary and secondary appraisal is about how the students perceived the stress.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

276
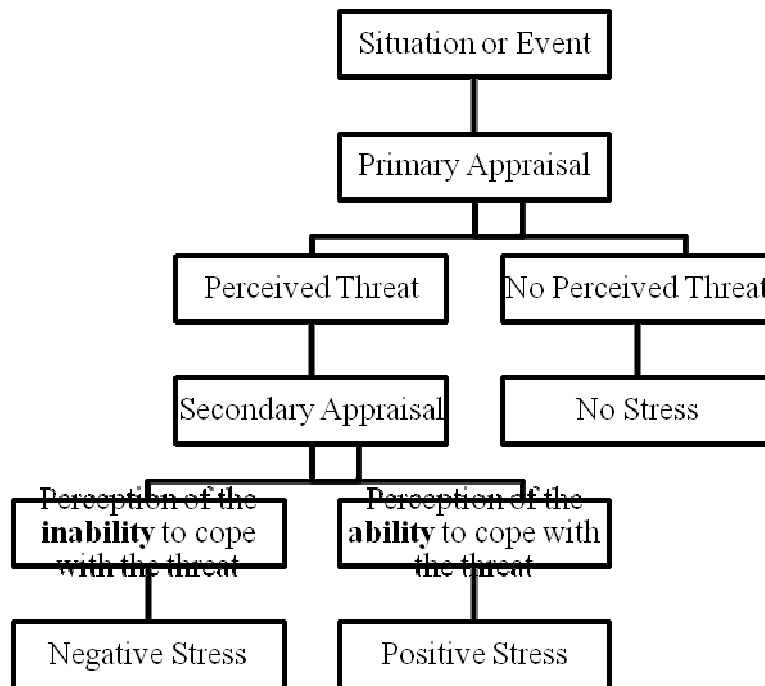
Figure 1: Lazarus's Model

Adopted from: Greenberg, J. S. (2011).*Comprehensive stress management* (12th ed.). New York: McGraw-Hill.

Lazarus theory was widely used in similar past topical research, such as Cheng (2009), Roy (2003), Yusoff et al. (2009), Misra and Catillo (2004), Redhwan, Sami, Karim, Chan and Zaleha (2009). All these research focused on determining the stressors on students and the top four stressors are financial issues, academic issues, social support issues and time management issues (Cheng, 2009; Abdullah et al., 2009). This research is an enhancement of both researches undertaken by Cheng (2009) and Abdullah et al. (2009). All independent variables were picked from both researches and combined as one. Furthermore, the research area of Abdullah et al. (2009) was expanded which only focused on adjustment on first year students.

This current research proposes to adopt the Lazarus theory to test the relationship between the stress factors and the students' stress.

FINANCIAL ISSUES

Heins, Fahey and Leiden (1984), Hodgson and Simoni (1995), Hudson and O'Regan (1994), and Nelson, Dell' Oliver, Koch and Buckler (2001) considered financial stress as economic stress which is concerned with money and inflation. According to Pearlin and Radabaugh (1976), many major daily activities are strictly tied to personal financial resources and thus, financial issue is important to undergraduates. The

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

277

study of Redhwan et al. (2009) in Malaysia found that financial issues and stress had significant positive relationship among undergraduates.

Cho and Glod (2008) found that financial recession prompt more undergraduates to take loans. Students who incur debts may have high levels of anxiety and depression than those who do not. Stress due to financial pressure affects students' academic achievements and is detrimental to their mental and physical health, as many students work part-time to meet educational expenses (Northern, O'Brien & Goetz, 2010).

ACADEMIC ISSUES

Academic stress occurs when there is a surge in academic related demand compared to the limited resources available from individuals (Wilks, 2008). Agolla and Ongori (2009) investigated the academic stress among undergraduates by distributing questionnaires to students in University of Botswana. The result showed a positive relationship between academic issues and stress among the undergraduates. In Awino and Agolla (2008)'s study undergraduates' stressors included academic workload, academic performance and fear of exam failure.

Yasin and Dzulkifli (2011) conducted a survey on 120 undergraduates in International Islamic University, Malaysia to study the differences in depression, anxiety, and stress among low and high achievers. Positive relationship could be deduced between academic issues and stress. Rawson, Bloomer and Kendall (1999)'s study considered that academic stressors are examinations, grade competitions and work overload under time constraints.

In the study of Ahmad, Yusoff and Razak (2011), 291 questionnaires were distributed to undergraduate dental students in University of Malaya. Their study is to identify the prevalence of stress, types of stressors, consequences of stress and stress relievers among the undergraduates. The study showed a direct relationship between academic issues and stress. In Kumar, Dagli, Mathur, Jain, Prabu and Kulkarni (2009)'s study, preclinical students stated that examinations, grades, fear of failing in exams and heavy academic workload were their greatest causes of stress.

SOCIAL SUPPORT ISSUES

Social supports are the experience of being valued, respected, cared, and loved by others in life (Gurung, 2010). A social support network consists of family, peer, and institutional support (Loeper, 2003). According to Gracia and Herrero (2004), social support has been found necessary to promote psychological well-being and to buffer the effects of stress.

The studies of Yasin and Dzulkifli (2010) in Malaysia found that lack of social support is one of the factors causing distress among undergraduates while the study of Nelson et al. (2001) in USA supported this in

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

278

their findings where undergraduates with more interpersonal contact and social support have less psychological distress. Besides that, social support increases the successful achievement of degrees for undergraduates (Loeper, 2003). According to Chow (2010), social support buffers the negative events and stress among undergraduates.

Petroff (2008) who carried out his studies in Lincoln found out that students who enjoy favourable from their families are more likely to communicate better with mentors and more confident and have positive self-image. Hence, a student from a strong family background experienced lower levels of perceived stress. Wilks (2008) also found that friends' support significantly moderate the relationship between academic stress and resilience. Those students who reported having supportive partners have less stress and have higher self-esteem compared to those with less supportive partners (Loeper, 2003).

TIME MANAGEMENT ISSUES

According to North (2004), time management is managing tasks according to time constraints and performing to complete it effectively while regulating any possible disturbances.

Jones (2002) concluded that Georgia State University's cheerleaders faced stress due to poor time management. The study found that poor time management has positive relationship with stress. The stressors for college cheerleaders are individual gymnastic skill, teamwork, extensive practice and precision timing.

According to Kachgal, Hansen and Nutter (2001)'s study,   undergraduates may feel stress when they have inadequate time to accomplish the tasks while balancing the demands of family, social lives and others. Johnson (2009) conducted a study on community college students' perception of stress and stressors. He found out that the stressors among college students are time limitation, lack of sleep, demands of college, financial limitation and social demands.

HEALTH ISSUES

Cheng, Kawachi, Coakly, Schwartz and Colditz (2000) assert that social and emotional stressors may be correlated with persistent physical health conditions. In addition, the effects are the greatest when little control is felt with how and when an individual deals with required demands (Hallquvist, Diderichsen, Theorell, Reuterwall, &Ahlbom, 1998).

Wolniweicz (1996) investigated this issue in a survey created by the chief psychologist at Southern Illinois University. The survey involved stressors and was administered to 26 speech communication graduate students. The result of the survey indicated that students often put academic assignments over personal activities, especially those related to their wellbeing. As a result of a lack of time, medical checkups are put off; important surgeries, even chemotherapy, may be delayed to meet academic deadlines. Also

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

279

reported was that persistent stress can have consequences such as a loss of sleep, headaches, and being prone to becoming increasingly sick.

INTERNAL COUNSELLING

The purpose of internal counselling is to assist the students to handle the stressful situations that rise during the college days.Many factors influence the degree to which students use a counselling service. Factors that influence students' use of counselling services include: degree of campaign of services by counsellors and faculty, the label of the counseling centre, and the strength of working association between counsellor and student. It cannot be expected that a service will routinely be used by students. Carney, Peterson and Moberg (1990), for example, suggest that counsellors may have to promote themselves and their programs to encourage faculty to refer students. They also suggest that the title of the counseling centre can have an impact on the counselling services. Brown and Chambers (1986) found that faculty were more likely to refer a student to a centre titled "Personal and Career Counselling Service" than they were to a centre titled "Counselling, Career and Consultation Service" or Psychological and Career Exploration Service".

STUDENTS' STRESS

University is a place where people pursue tertiary education. Undergraduates do face stress like anyone on earth does. Their main cause of stress is academic pressure where undergraduates need to cope with newly taught subjects in universities (Kate, Kulkarni, Shetty, Desmukh & Moghe, 2010). Wintre and Bowers (2007) reported that among 944 undergraduates in a university in Canada, only 57.9% graduated within six years, while 9% of them still remained enrolled. The remaining 33.1% were neither enrolled nor graduated. In a research conducted in University Utara Malaysia, students were found to be stressful due to academic pressure, financial difficulties, social and personal problems (Khamis, Yaakub, Shaari & Yusoff, 2002). According to Khamis et al. (2002), the financial was the main issue faced by the majority of students, followed by academic problem. Academic problems include failure to register for course, languages difficulties and early morning class attendance.

Prolonged exposure to stress can lead to depression (Sarafino, 2002). According to the survey conducted by John Tung Foundation (as cited in Cheng, 2009), 84% of the youngsters experienced depression, 15.3% reported daily depression while 33.6% encountered depression once a week. Among them, 56.7% of the depression came from studies while academic tests occupied 45.6%. The report also reported that people are eight times more likely to commit suicide under depression.

According to Ministry of Education in Taiwan (as cited in Cheng, 2009), the highest suicide rate of university students was reported from 2005 until 2008.The leading causes of suicide in descending order are relationship problems, followed by depression and academic stress.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

280

On the other hand, stress can be positive too if a person is able to cope and overcome stress related difficulties. Positive stress acts as a motivator to increase people's productivity (Tamara, 2009). People will try even harder to achieve their goals and overcome difficulties. According to Yusoff, Rahim and Yaacob (2009), optimal level of stress will help to enhance the learning ability of students and train them to be more competitive.

The above discussions lead to the following theoretical framework for this study.
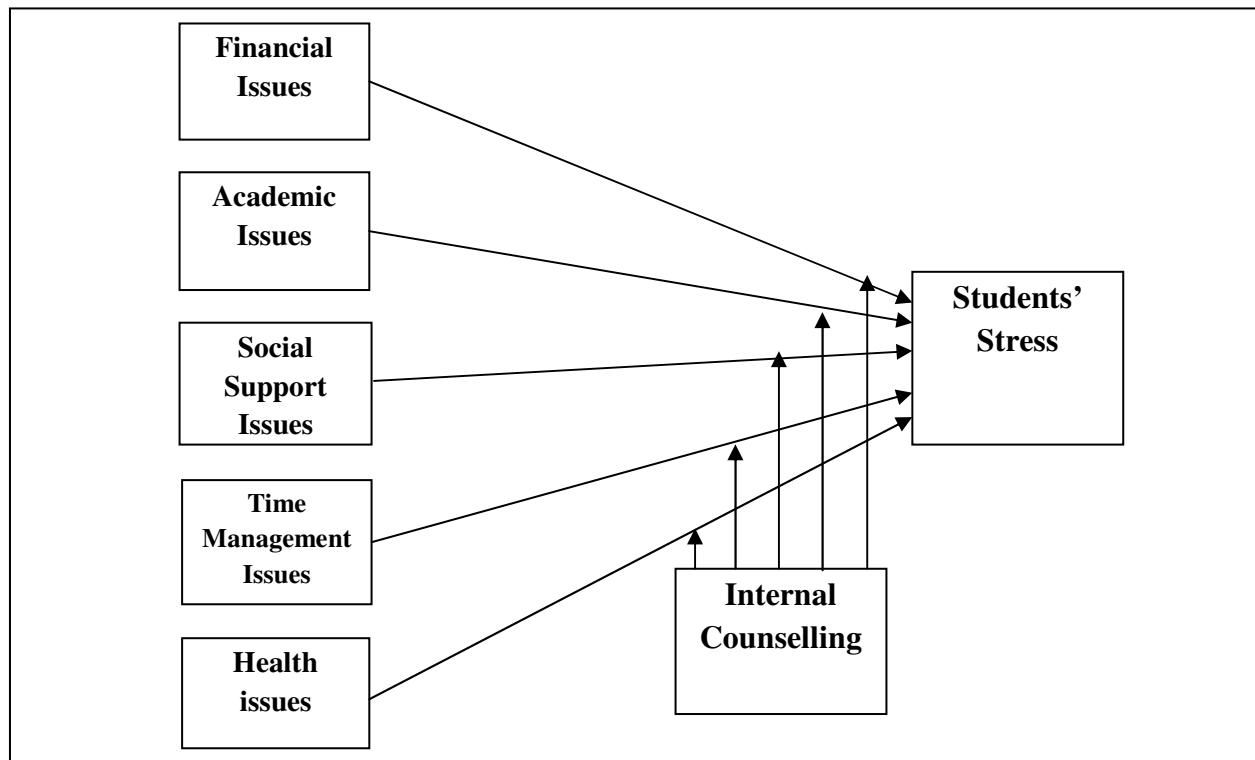
Figure 2: Theoretical Framework of the Study

Adapted from: Cheng, K.W. (2009). A study of stress sources among college students in Taiwan. *Journal of Academic and Business Ethics, 2*, 1-8; Abdullah, M. C., Elias, H., Mahyuddin, R., &Uli, J. (2009).Adjustments among first year students in a Malaysian University. *European Journal of Social Science, 8*(3).

PROPOSED RESEARCH METHODOLOGY

In Malaysia, the Private Higher Education Institutions PHEIs grow significantly and as of 30 November 2013, there were 40 private universities with 19 branches, 24 college universities with 6 branches, 9 branch campuses and 422 colleges in the country. For the purpose of this research, the respondents would be from the 40 private universities with 19 branches and from the 422 colleges. Totally 5 private

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

281

universities and colleges which have the highest number of Accounting students would be selected for this research from the following States:

1. Perak
2. Kuala Lumpur
3. Selangor
4. Melaka and
5. Negeri Sembilan

300 sets of self-administered questionnaires would be distributed to the Accounting students through delivery and collection method by following convenience sampling method. The data would be analysed by using the Structural equation modelling to find out the relationship between the independent and dependent variables and to find out the moderating effect of internal counselling.

CONTRIBUTION OF THIS RESEARCH

This study would contribute to a new body of knowledge, where it provides valuable insights on the stress factors affecting the Accounting students and the perceptions of these students on the internal counselling process. Although internal counselling is offered by the Higher Education Institutions in Malaysia, many accounting students do not at present utilise these services that are available, as many of them are unaware of such services. The results of this study would provide an opportunity to become aware of the internal counselling services by the students of Malaysian Higher Education Institutions and would also provide additional input for the Higher Education Institutions' efforts to improve their internal counselling process so as to give the students a stress free academic life. This would also help some of the Accounting students to continue their professional studies after their graduation to become a Professional Accountant to fulfil the shortage in the Accounting Profession in Malaysia.

To Higher Education Institutions

Although internal counselling is offered by the Higher Education Institutions in Malaysia, many accounting students do not at present utilise these services that are available, as many of them are unaware of such services. The results of this study would provide an opportunity to become aware of the internal counselling services by the students of Malaysian Higher Education Institutions and would also provide additional input for the Higher Education Institutions' efforts to improve their internal counselling process so as to give the students a stress free academic life.

To Society

Many of the Accounting students take the Accounting course with the ambition to take the professional courses like ACCA, CIMA, CPA etc., after they graduate. But some students get stress during their study and some drop the studies in the middle due to the stress they encounter. The results of this study would benefit the Accounting students in Malaysia to know the most stress factors in their academic life and the impact of the counselling process to reduce their stress. This would help the Accounting students to

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

282

continue their professional studies to become a Professional Accountant to fulfil the shortage in the Accounting Professionals in Malaysia.

CONCLUSION

This study proposed to find out the roots of accounting students' stress.   Once the causes of the accounting students' stress are known, the management of the Malaysian PHEIs can focus on those factors to reduce the students' stress through the internal counselling. TheLazarus's Cognitive Theoryis considered as the most appropriate theory to study the causes of students' stress. As far enhancement of the research, further surveys should be carried out to test, validate and enhance the model shown above in the Malaysian context as suggested under the proposed research methodology part of this study.

REFERENCES

Abdullah, M. C., Elias, H., Mahyuddin, R., and Uli, J. (2009).Adjustment among first year students in a Malaysian University.*European Journal of Social Science, 8*(3).

Agolla, J. E., and Ongori, H. (2009). An assessment of academic stress among undergraduate students: The case of University of Botswana. *Educational Research and Review, 4*(2), 63-70.

Ahmad, M. S., Yusoff, M. M. M., and Razak, I. A. (2011).Stress and its relief among undergraduate dental students in Malaysia.*Southeast Asian J Trop Med Public Health*, *42*(4), 996-1004

Awino, J. O., and Agolla, J. E. (2008). A quest for sustainable quality assurance measurement for universities: Case of study of the University of Botswana. *Educ. Res. Rev. 3* (6), 213-218.

Brown, M. T., and Chambers, M. (1986). Student and faculty perceptions of counseling centers: What's in a name? *Journal of Counseling Psychology*. 33. 155-158.

Carney, C.G., Peterson, K., and Moberg, T.F. (1990). How stable are student and faculty perceptions of student concerns and of a university counseling center? *Journal of College Student Development*. 31. 423-428.

Cheng, K.W. (2009). A study of stress sources among college students in Taiwan. *Journal of Academic and Business Ethics, 2*, 1-8.

Cheng, Y., Kawachi, I., Coakley, E. H., Schwartz, J., and Colditz, G. (2000). Association between psychosocial work characteristics and health functioning in American women: Prospective study. *British Medical Journal, 320,* 1432-1436.

Cho, D., and Glod, M. (2008). Credit crises may make college loans more costly. *Washington Post*, p. A01.

Chow, H. P. H. (2010). Predicting academic success and psychological wellness in a sample of Canadian undergraduate students*. Electronic Journal of Research in Educational Psychology, 8*(2), 473-496.
David Mechanic (1962). *Students Under Stress: A Study in the Social Psychology of Adaptation*. Free Press of Glencoe.

Gracia, E., and Herrero, J. (2004).Personal and situational determinants of relationship-specific perception of social support. *Social Behavior and Personality, 32*(5), 459-476.

Greenberg, J. S. (2011). *Comprehensive stress management* (12th ed.). New York: McGraw-Hill.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

283

Gurung, R. A. R. (2010). *Health psychology: A cultural approach* (2nd ed.). Wadsworth: Cengage Learning.

Hallquvist, J., Diderichsen, F., Theorell, T., Reuterwall, C, and Ahlbom, A. (1998). Is the effect of job strain on myocardial infarction risk due to the interaction between high psychological demands and low decision latitude? Results from Stockholm Heart Epidemology Program (SHEEP).*Social Science & Medicine, 46(11),* 1405-1415.

Heins, M., Fahey, S. N., and Leiden, L. I. (1984).Perceived stress in medical, law, and graduate students. *Journal of Medical Education, 59,* 169-179.

Hodgson, C. S., and Simoni, J. M. (1995). Graduate Student Academic and Psychological Functioning. *Journal of College Student Development, 36,* 244-253.

Hudson, S. A., and O'Regan, J. (1994).Stress and the Graduate Psychology Student. *Journal of Clinical Psychology, 50*, 973-977.

Johnson, M. (2009).Community college students' perceptions of stress. *Biology of Exercise, 5*(1).

Jones, S. (2002*). Time stress factors and alcohol use in college cheerleaders collaborative action project.* Unpublished master dissertation, Georgia State University.

Kachgal, M. M., Hansen, L. S., and Nutter, K. J. (2001). Academic procrastination prevention: Strategies and recommendations. *Journal of Developmental Education, 25*(1), 14-20.

Kate, M. S., Kulkarni, U. J., Shetty, Y. C., Deshmukh, Y. A., and Moghe V. V. (2010).Acknowledging stress in undergraduate medical education and methods of overcoming it. *Current Research Journal of Social Sciences 2*(5), 282-287.

Khamis, A., Yaakub, N. F., Shaari, A., andYusoff, M. Z. M. (2002).*Adjustment to college life and academic performance among Universiti Utara Malaysia students* .Unpublished Manuscript, Universiti Utara Malaysia, Kedah, Malaysia.

Kumar, S., Dagli, R., Mathur, A., Jain, M., Prabu, D., and Kulkarni, S. (2009). Perceived sources of stress amongst Indian dental students. *European Journal of Dental Education, 13*, 39-45.

Loeper, B. (2003). *Stress, social support and the nontraditional student: A qualitative study of the nontraditional student at St. Mary's College of Maryland.* Unpublished Manuscript, St. Mary's College of Maryland, St. Mary's City, Maryland.

Misra, R., and Castillo, L. G. (2004). Academic stress among college students: Comparison of America and International students. *International Journal of Stress Management, 11*(2), 132-148.

Nelson, N. G., Dell'Oliver, C., Koch, C., and Buckler, R. (2001).Stress, coping and success among graduate students in clinical psychology. *Psychological Reports, 88*, 759-767.

North, Y. (2004). *God's Clock maker;* Richard of Wallingford and the invention of time Oxbow Books.

Northern, J., O'Brien, W., and Goetz, P. (2010). The development, evaluation, and validation of a financial stress scale for undergraduate students. *Journal of College Student Development, 51*(1), 79-92.

Pearlin, L. I., and Radabaugh, C. W. (1976).Economic strains and the coping functions of alcohol. *American Journal of Sociology, 82*, 652-663.

Petroff, L. L. (2008). Stress, adult attachment, and academic success among community college students.(Doctoral dissertation, University of Nebraska, 2008).*Journal of College of Education and Human Sciences, 27, 333-350.*

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

284

Rawson, H. E., Bloomer, K., and Kendall, A. (1999).Stress, anxiety, depression, and physical illness in college students. *The Journal of Genetic Psychology, 155*(3), 321-330.

Redhwan, A. A. N., Sami, A. R., Karim, A. J., Chan, R., and Zaleha, M. I. (2009). Stress and coping strategies among management and science university students: A qualitative study. *The International Medical Journal, 8*(2), 11-16.

Roy, A. M. (2003). *Coursework stress in university students: Investigating problem solving coping, wishful thinking coping, anxiety and depression as predictors of coursework stress.* Unpublished Manuscript, Glasgow Caledonian University, Scotland, UK.

Santrock, J. W. (2006). *Human adjustment.* New York: McGraw-Hill.

Sarafino, E. P. (2002). *Health psychology: Biopsychology interaction* (4th ed.). New York: John Wiley.

Tamara, E. H. (2009). Attitude enhancement. Why should I care? Four ways to avoid apathy in an insecure work environment.*Black Enterprise, 39*(8), 109.

Yasin, M. A. S. M., and Dzulkifli, M. A. (2010).The relationship between social support and psychological problems among students.*International Journal of Business and Social Science, 1*(3), 110-116.

Yasin, M. A. S. M., and Dzulkifli, M. A. (2011).Differences in depression, anxiety and stress between low-and-high-achieving students.*Journal of Sustainability Science and Management, 6*(1), 169-178.

Yusoff, M. S. B., Rahim, A. F. A., andYaacob, M. J. (2009).Prevalence and sources of stress among UniversitiSains Malaysia medical students.*Malaysian Journal of Medical Sciences. 17*(1), 30-37.

Wilks, S. E. (2008). Resilience amid academic stress: The moderating impact of social support among social work students. *Advances in Social Work, 9*(2), 106-125.

Wintre, M. G.,and Bowers, C. D. (2007). Predictors of persistence to graduation: Extending a model and data on the transition to university model. *Canadian Journal of Behavioural Science, 39*(3), 220-234.

Wood, S. E., and Wood, E. R. G. (2001).*The world of psychology* (4th ed.). Boston: Allyn & Bacon.

Wolniewicz, R. (1996, November). The psychology of the graduate student: A preliminary study. Paper presented at the Annual Meeting of the Speech Communication Association, San Diego, CA.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

285

Audit Rotation and Audit Quality: A Review
Fong Yew, Ong

Taylor's University, Malaysia, fongyew.ong@taylors.edu.my

Abstract

Over the years, the collapse of several large corporate institutions around the world's most developed economies has sparked concerns on the governance of such institutions. Many such collapses are due to poor governance structures or lack of will in executing governance tools. Regulatory and legislative bodies have been consistently formulating strategies and methods to improve the governance of large public entities, to improve accountability and transparency of such entities. As audit is the cornerstone of governance, audit firm or audit partner rotation is one such channel to increase or enhance governance attributes among entities. It is widely perceived that audit rotation improves the quality of audit work carried out and hence provides greater assurance to stakeholders. However, the need for such rotations is not without its disadvantages. Several researchers have noted that there are many issues involved in such rotations that disadvantage the entity in many ways. This paper seeks to determine and discuss the various attributes and issues surrounding audit rotation and audit quality through review of past international researches and studies carried out in this area.

Keywords: Audit, Rotation, Audit Quality

_____

Introduction

The issue of audit firm rotation and audit partner rotation is no longer strange in the context of corporate governance. An audit rotation requires companies to change their independent auditors on a periodic basis. The collapse of several large institutions particularly in developed markets like United States and Europe has attracted worldwide attention on the role of auditors. Hence, many regulators globally are seeking ways to maintain the independence of the auditing profession. One such possible solution is to mandate audit rotation of public listed companies, which is believed that such a rule will enhance auditor's independence and the quality of audit work. However, even if such a mandatory requirement of audit rotation is implemented, certain quarters argue that the costs outweigh the benefits of implementing such rotation practices.

Current Requirements

Although audit firm rotation and audit partner rotation are seen as contributing to good corporate governance and enhances shareholders' confidence, many countries do not mandatorily impose such requirements on public listed entities. In the United States for instance, audit firm rotation is generally not required. However, in 2011, the United States Public Company Accounting Oversight Board (PCAOB) issued a concept release to collect comments on the implementation of mandatory audit rotation. The PCAOB is particularly interested in audit tenures of ten years or more (David and Thomas, 2013). Hence at present, audit rotation is voluntary in the United States.

Australia is also in the process of considering imposing mandatory audit firm rotation on its public listed entities. The Australian Securities and Investment Commission (ASIC) had in 2012 discovered that there had been a 30 percent increase in the failure of auditors to detect material misstatements on the financial statements of public listed companies, based on sample financial statements collected for the 18

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

286

months ending 30 June 2012. The chairman of ASIC noted that if such failures of the auditors fall further, he would propose to the Australian government to impose mandatory audit rotation to prevent further deterioration of audit quality (Durkin, 2012).

The European Union (EU) has a similar stand as that of Australia. Due to the recent bailouts of banks, the regulators are pondering on imposing mandatory rotation to improve auditor quality and independence (David and Thomas, 2013).

In other parts of the world, for instance, Korean, audit rotation is mandatory for troubled listed companies and it seems to produce positive results. A study by Kim and Yi (2009) found that companies that adopt the mandatory rotation report significantly lower discretionary accruals. On the other hand, a study conducted in China disagrees with this finding. As China has various regulatory environments across its nation, Firth *et al.* (2012) was able to examine the differences between mandatory and voluntary audit rotations of public listed companies. Using auditor's tendency to issue a modified audit opinion to measure audit quality, it was found that there was limited effect on audit quality of such firms.

In Italy and Brazil, the regulators require companies to practice mandatory audit rotation. Italy regulators require a nine year rotation period while the duration for Brazil is five years (Andrew *et al.* 2008)

The Advantages

Generally, imposing audit rotation on firms is seen as positive from the perspective of regulators, investors and the general public as this tends to improve audit independence. A study by Taylor (2005) found that mandatory audit rotation improves the perceived audit quality of the company. Taylor (2005) suggested that audit quality comprises of actual and perceived quality, where actual quality refers to the extent to which material misstatements in the financial statements are reduced, while perceived quality refers to the perception of users of financial statements towards the effectiveness of auditors in reducing such material misstatements or errors. The fact is that higher perception towards the audit quality of a firm could promote more investments towards the firm.

For certain, researchers have suggested that independence of the auditors improves if audit rotations were in place. Audit tenure increases the familiarity of the auditor-client relationship and this could possibly threaten the independence of the auditor. As a result, the quality of audit work may be compromised, due to the fact that the auditor could be reluctant to jeopardize the relationship, or that the auditors' over-familiarization with the accounts of the client reduces the alertness of risk detection.

The Barriers and Arguments

The introduction of audit rotation is not spared of its criticisms. Many parties oppose to such ruling, for fear that their interest could be jeopardized. One argument that arose was the reduction in client familiarity. While the gist of audit rotation was to reduce client over-familiarization and thus impairing independence, auditors are arguing that periodic rotation hinders them from obtaining a better understanding of the client. In addition, if the auditors are required to vacate office once they have reached a certain number of years, the understanding of their clients' business garnered through previous engagements would be lost. As a result of reduced familiarity of the clients' business and environment, audit quality would be affected. Many past studies have suggested that there is a positive relationship between audit and financial reporting quality and audit firm tenure (Brian *et al.*, 2013). In fact, a study conducted by Brian *et al.* (2012) reported a two to three year new client familiarization period before they are able to carry out a fully effective audit work. Hence, a shorter rotation period in fact affects the work of an auditor. This is more apparent in complicated industries such as financial institutions. Financial institutions require a greater depth of understanding on the part of the auditor, and could also entail more

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

287

audit work to provide the audit team reasonable assurance to form their opinion. As such, audit rotation will directly impact the auditors' learning curve. In fact, a study carried out by Arel *et al.* (2005) pointed out that audit failures are usually higher during the first few years of the audit engagement, as the new auditor seeks to familiarize himself/herself with the new client.

Audit rotation requirement also raises uneasiness among businesses in terms of cost. A mandatory audit rotation inevitably increases the cost of an audit, due to the increased resources needed to cope with the new client. As a result, companies and shareholders would likely have to bear this cost. Furthermore, the competition to get new clients resulting from mandatory rotation will push audit firms to engage in more marketing or public relations activities, thus contributing to their cost structure as well. However, it is noteworthy that it is also equally possible that audit fees for the first year could be lower due to competition among audit firms. Firms may charge a lower audit fee in the first year in order to entice clients, and in hope of future non-audit services fees. This notion is supported by Aloke and Steven (2006), who found in their study that companies might initially pay a smaller audit fees when they engage different audit firms.

The opponents of the mandatory rotation also opine that senior management at companies will have to devote more time and commitment to explain the business to the new auditor. As most auditors will be less efficient in the earlier years of their audit engagement, the senior management has to spend considerable effort so that the auditor will have sufficient understanding of the business to carry out the audit. Such increase in time cost and resources on the part of the management distracts them from their daily busy schedules and hence the opposition. Notwithstanding that, new auditors are likely to ask more questions about the business and the management may find themselves repeatedly attending to such queries. Kinney and McDaniel (1996) pointed out that much of the knowledge acquired from an audit engagement is client-specific. Hence, when a new auditor takes office, they have very limited client-specific knowledge and this will be an issue that both the auditors and the senior management team have to tackle.

The fact that mandatory rotation increases the risk of trade secrets exposure needs to be considered seriously. Many large public listed companies prefer the Big 4 auditors, a preference that is shared across globally (Brian *et al.*, 2013). For industries with fewer competitions, auditors may find themselves rotationally auditing clients within the same industry. These clients could be business rivals and it only takes an unethical auditor to release confidential information about a company to its rival. Problems arise too when a staff from an audit team joins its client and carries with him/her high level information about competitors. Therefore, the issue of client confidentiality and how this is being tackled is crucial in considering mandatory audit rotation.

Moreover, it is argued that current regulations in most markets around the world are sufficient to provide checks and balances of the quality of auditors' independence and audit quality. The existence of audit committees is one good example to illustrate this. The audit committee is one that is tasked to promote good governance, and in particular is answerable to shareholders. Audit committees reviews the findings of the external auditor and any issues are being addressed. The client itself would also have an internal audit team that reviews the internal control environment and these are being reported to the audit committee. Major issues would have then been identified and corrective measures taken, assuming that the internal audit function is performing effectively. Furthermore, in cases of larger listed companies or companies in riskier industries, a reviewing partner will be appointed in addition to the signing partner for the audit. This is to ensure that the quality of the audit work is up to standard. Besides, audit firms these days also have inter-office reviews as part of their quality control exercises. All these cost-incurring functions, activities and procedures serve as a control mechanism to provide checks and balances in

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

288

ensuring the independence of auditors and their respective audit quality. Hence, the need for a mandatory audit rotation is being questioned.

Conclusion / Recommendation

Based on past literature on audit rotation, there seems to be more costs than benefits of mandatory audit rotation. Auditors and businesses do not favor a regime of mandatory audit rotation as it is too cumbersome and involves additional resources. This is especially a burden to smaller-cap companies and companies already under financial distress. As such, the regulators must critically assess the need for such mandatory audit rotation in the context of their national business environment. However, if viewed positively, mandatory audit rotation improves auditors' independence and improves investors and market confidence towards companies. As it is currently, several countries impose such mandatory ruling while some countries make it a voluntary option for companies.

In the event a mandatory audit rotation is proposed, care must be taken to ensure the appropriateness of the rotation period. It is rather impractical to impose a standard rotation period across all industries. This is because each industry requires a different depth of understanding of its business operations, structures, environments and risks. For instance, it requires more effort to understand the banking sector than the manufacturing sector. Hence, it takes longer years for an audit staff to fully understand a banking client than a manufacturing client. If standard rotation periods are imposed across industries, it will possibly create greater audit costs for complex industries such as the banking, insurance and property sector.

Be it mandatory or voluntary, it is for certain that auditors must put in place a proper transition procedure. As a matter of professional ethics, auditors, when vacating office, should make known to the incoming auditor of any material issues, shortcomings or risks that warrants the attention of the latter. This allows the incoming auditor to assess the engagement risk and to gauge the level of audit work and assessment level required. Hence, communication among auditors is utmost important in an audit rotation environment.

References

Aloke,G. and Steven, L. (2006). Pricing of an initial audit engagements by large and small audit firms. *Contemporary Accounting Research, 23*(2). 333-368.

Andrew, B.J., Micheal, M. and Peter, R. (2008). Mandatory audit rotation and audit quality. *Managerial Auditing Journal, 23*(5). 420-437.

Arel, B., Brody, R. and Pany, K. (2005). Audit firm rotation and audit quality. *CPA Journal,* January.

Brian, D., Denise, D., Julia, H. and Kay, T. (2012). An examination of partner perceptions of partner rotation: Direct and indirect consequences to audit quality. *Auditing: A Journal of Practice and Theory, 31*(1). 97-114.

Brian, D., Denise, D., Julia, H. and Kay, T. (2013). The question of mandatory audit firm rotation. *The CAP Journal,* January 2013.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

289

David, S.J. and Thomas, E.V. (2013). Audit firm rotation and audit quality: evidence from academic research. *Accounting Research Journal, 26*(1), 75-84.

Durkin, P. (2012). ASIC threatens auditors with mandatory rotation. *The Australian Financial Review,* December 5.

Firth, M., Rui, O. and Wu, X. (2012). How do various forms of auditor rotation affect audit quality? Evidence from China. *The International Journal of Accounting, 47*(1). 109-138.

Kim, J. and Yi, C. (2009). Does auditor designation by the regulatory authority improve audit quality? Evidence from Korea. *Journal of Accounting & Public Policy, 28*(3). 207-230.

Kinney, W. and McDaniel, L. (1996). How to improve the effectiveness of substantive analytical procedures. *CPA Journal, 66*(4). 52-54.

Taylor. S. (2005). The role of audit partner in audit fee determination. *Working paper,* University of New South Wales, Sydney.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

290

DOES PUBLIC GOVERNANCE QUALITY AND TRANSPARENCY STRENGTHEN PERSONAL INCOME TAX COMPLIANCE IN MALAYSIA?

Tan Swee Kiow[a], Mohd Fuad Mohd Salleh[b], Aza Azlina Bt Md Kassim[c]

[a]Universiti Tunku Abdul Rahman, Malaysia, sktan@utar.edu.my

[b]Universiti Selangor, Malaysia, fuadsalleh@unisel.edu.my

[c]Universiti Selangor, Malaysia, aza_azlina@unisel.edu.my

Abstract

Tax compliance is important as tax revenues are the largest and most significant sources of revenues for every country. If the governments can promote more compliance from taxpayers, tax revenues will increase without having to raise tax rates, which could reduce the government's overall deficit. This is especially important during economic downturns. Also, tax compliance reflects a country's true tax system. Progressive tax rate structure could even become regressive if the taxes are not collected from high-income groups. If that is the case, tax policy will be distorted or will not serve its purpose to achieve efficiency and equity. Tax compliance concerns equity and fairness issues in public administration. If taxes are not collected from some groups within society, the government are not perceived as fair and ethical by its citizens, and then lose their legitimacy. This study will examine the factors of tax compliance in Malaysia.

Keywords: public governance quality, transparency, tax compliance behaviour

INTRODUCTION

The low levels of tax compliance severely pose many challenges to policy makers and tax administrations in developing countries. Increased tax compliance among individual taxpayers would help to reduce the budget deficit without raising taxes. Legislators seeking to raise additional tax revenues have begun to inquire about the magnitude of the 'tax gap', the difference between taxes owed and taxes voluntarily paid. Hence, ensuring a high level of tax compliance is an on-going challenge for tax administration even though most taxpayers voluntarily comply with income tax laws. Noncompliance reduces federal revenue that could be used to provide services to its general public. It also will increase the administrative costs and by unfairly shifting the tax burden on those who comply.

Underreporting of income and/or over reporting of deductions was not surprising in light of the Malaysian personal income tax is a progressive system, i.e. up to maximum of 26%. Compared to Singapore, our neighbouring country, which up to 20%, it means our country's personal income tax rate, is relatively high. In May 2010, IRB chief executive officer Datuk Hasmah Abdullah Hasmah said there are 6.4 million registered taxpayers in Malaysia, but only 2.4 million pay taxes as the rest are ineligible. One year later in September 2011, the number of registered tax payers is reduced to approximately 5 million, yet out of that only 1.7 million pay taxes, reported by Inland Revenue Board chief executive officer Datuk Dr Mohd Shukor Mahfar. The number of eligible taxpayers dropped further to one million only compared to four million people with files in the Inland Revenue Board (IRB), told by Deputy Finance Minister Datuk Ahmad Maslan in a press conference in May 2014. Those taxpayers are ineligible as they are retired, had stopped working, or had an income below the taxable bracket after the government granted additional tax relief. It means in year 2011, with a population of 28.8 million, the burden of paying income tax is shared by 5.9% of the population, and 13.8% of workforce in Malaysia pays tax. These facts conclude that number of personal tax payers in Malaysia is very low and most significantly is the burden of personal income tax is disproportionately borne by small group of population.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

291

The 2012 Auditor-General report had highlighted the repeated annual problems of overspending, underutilised, sub-standard or paid well above market price in the procurement of works, goods and services for government projects. Despite every year the same problems emerges and millions of ringgits of taxpayers' money are lost, and recommendations have been made to correct the weaknesses highlighted in the previous Auditor General Reports. The 2013 Auditor General Report showed even more serious failure in the government administration system. Every year, it can only be a different set of examples highlighted by the Auditor-General's report, but the same non-compliance pattern continues to attract media and public attention. For example, as highlighted in the Auditor General Report 2013, the excessive spending of RM100 million to maintain the Prime Minister's jets. Another example was the RM342.55 million Paya Peda Dam in Terengganu was awarded by direct negotiation to inexperience and lack of expertise contractor. This project's shortcomings resulted in a flood, and affected the targeted increase in paddy yields in the Besut district. Moreover, flood damage carries many direct and indirect costs, ranging from destruction of property to loss of income and even lives. This report definitely affects the public's perception of the government's credibility and it may also affect taxpayers' compliance behaviour.

At the same time, Transparency International – Malaysia (TI-M), strongly urges Prime Minister, Datuk Seri Najib Tun Razak to look not only into the rising number of outstanding cases of costly public projects and whether public funds have been spent wisely but also to ensure that suspected criminal breach of trust, cheating or corruption cases identified in the audit report are thoroughly investigated and action appropriately taken. As the head of a ministry every minister must ensure their own integrity and that of all others below them.

In addition, TI-M agreed with findings of Transparency International UK's Defence and Security Programme (TI-DSP) which revealed that two-thirds of parliaments and legislatures around the world fail to exercise sufficient control over their Ministry of Defence and the armed forces, and 70 per cent of these largest arms importers in 2012 leave the door open to corruption. TI-DSP analysed 82 countries on the authority, ability and attitude of parliaments and legislatures play their vital role in reduces corruption risks in the defence sector. Malaysia is ranked with a score of 25.14 out of 100.00 per cent, which exhibit 'Very High' risk of corruption. More transparency is necessary so that citizens know how their tax money is being spent. TI-M is concerned that the lack of transparency in the procurement practices would lead to the purchase of outdated military equipment at a very high cost.

Tax compliance has long been a common issue in many countries. Although majority of personal income taxpayers pay their taxes voluntary, but still have taxes legally owed but not paid in full and timely, which formed the tax gap at federal level. Every year the Auditor General's report highlighted the mismanagement of funds, wastage, and work not adhering to specifications, including recommendations to assist the ministries, departments and government companies to improve the inadequacies identified. But, millions of Ringgit are still lost every year, all these weaknesses in manage government funds has caused taxpayers lose confidence to the government. Taxpayers' money is being spent and wasted like water; this is one of the main factor caused non-compliance, hence they may more reluctant to pay tax.

Right now the major instrument used by Inland Revenue Board to reduce the tax gap and ensure high levels of compliance is tax auditing. Noncompliant taxpayers are detected through tax audits and penalized, but tax audit needs more manpower and incurred additional administration cost. So, the researcher has to identify whether public governance quality and transparency will influence taxpayers' attitudes about paying personal income tax in order to narrow the tax gap.

PUBLIC GOVERNANCE QUALITY

In the empirical study of public policies and their implementation, the term governance may be defined as regimes of laws, administrative rules, judicial rulings, and practices that constrain, prescribe, and enable government activity, where such activity is broadly defined as the production and delivery of publicly supported goods and services (O'Toole and Meier, 1999). In its broadest sense, the study of governance concerns the relationship between governance so defined and government performance.

Furthermore, citizens and other stakeholders not necessarily express greater trust in the governments concerned even when believe services are good, and even when services improve, trust does not necessarily rise (Bouckaert, 2003). As a consequence, public organisation cannot be judged only on the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

292

excellence of its services, but also has to be excellent in the way it exercises its political, environmental and social responsibilities. So, we understand public governance as 'the ways in which stakeholders interact with each other in order to influence the outcomes of public policies'. For good governance we mean 'the negotiation by all the stakeholders in an issue (or area) of improved public policy outcomes and agreed governance principles, which are both implemented and regularly evaluated by all stakeholders' (Bovaird and Loffler, 2003).

Due to the inherent diversity in national traditions and public cultures, there exist many definitions of governance in the literature. Political or public governance, whose authority is the State, government or public sector, relates to the process by which a society organizes its affairs and manages itself. The public sector could be defined as 'activities that are undertaken with public funds, whether within or outside of core government, and whether those funds represent a direct transfer or are provided in the form of an implicit guarantee' (Manning, Kraan 2006). Therefore, governance is how they relate to citizens, not just about how a government and social organizations interact (Graham, Amos, Plumptre 2003). Governance also concerns the State's ability to serve citizens, as well as the manner in which public functions are carried out, public resources are managed and public regulatory powers are exercised.

The Organisation for Economic Co-operation and Development (OECD) looks at governance from a broad perspective, based on the principle that efficient delivery of services is just one aspect of governments' tasks. Government is also responsible to a substantial degree for efficiency in the public sector as public policies play an essential role in shaping competitiveness and growth through its share of government employment, through tax policy, through spending on areas such as education, research and development or infrastructure, and through economic regulation. Whereas according to Commonwealth of Australia 2007, Public sector governance covers'…the set of responsibilities and practices, policies and procedures, exercised by an agency's executive, to provide strategic direction, ensure objectives are achieved, manage risks and use resources responsibly and with accountability.' This means that, on a daily basis, governance is typically about the way public servants take decisions and implement policies.

In analyzing the correlation between taxpayers and government, Levi (1988) stated the tax compliance is influenced by vertical contract. He said vertical contract is the contract between taxpayers and government. Vertical contract is concerned with whether taxpayers get public goods in exchange for taxes paid. Lassen (2003) also mentioned that vertical contract is whether the political goods provided by the government are sufficient in return to the taxes they are paying. Levi (1988) argued that if it is perceived by the taxpayers that the rate of transformation from tax to political goods is low then the taxpayers will feel that the government has not kept its commitment of the contract, consequently, voluntary tax compliance will worsen. In support of Levi (1988), Besancon (2003) also stated there is social contract between government (ruler) and taxpayers (ruled) which embodied effective delivery of political goods. Everest-Phillip and Sandall (2009) also found that citizens support government through the payment of tax, government should matter to the taxpayers because they provide the finance for its sustenance. Therefore, governance affairs may have either positive or negative influence on the compliance behaviour of the taxpayers.

Additionally, taxpayers may feel the attractiveness of the vertical contract diminished and that could lead to lower tax compliance due to the political goods mix supplied by the government is very different from those they prefer or rate of transformation is low due to corruption (Lassen 2003; Torgler 2003; Alm, McClelland and Schulze 1992) also argued that when government's honesty is down, individuals' tax compliance may be packed out because government fails to honour his honesty. He further commented that taxpayers' may develop positive attitudes and commitment to tax system and tax payment resulting into enhanced compliance behaviour if positive actions taken by the government. Mann and Smith (1988) also argued that taxpayers are conscious of the exchange relationship with government when taking decision relating tax compliance.

Botero, Ponce and Shleifer (2012) argued that educated citizens complain more, and that these complaints lead to better conduct by officials fearful of being punished, and therefore a higher quality government. The evidence also suggests that within countries better educated citizens are more likely to complain both about crime and about government misconduct, such as corruption and police abuse. More

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

293

frequent complaints encourage better behavior from officials; citizen complaints might thus be an operative mechanism that explains the link between education and the quality of government.

Everst-Philips and Sandall (2009) stated that there is correlation between public governance quality and taxation and that quality governance deliver good tax system and similarly better tax system make it likely to have good governance when they examining the relationship between public governance quality and compliance further. Akpo (2009) also mentioned that good governance entails the provision of quality public goods to the public and that where government fails to provide public facilities and infrastructure to the citizen in exchange for tax payment, citizen may become reluctant to pay tax. The study of Alm and Gomez (2008) established significant positive relationship between perception of the benefits to be derived from political goods and the willingness of taxpayers to comply with tax laws.

Public governance quality is one of the factor caused the low and shrinking tax compliance level in Nigeria (Ovute and Eyisi, 2014; Alabede, Affrin and Idris, 2011; Akpo, 2009; Everest-Phillip and Sandall, 2009; Odinkonigbo, 2009; Bird and Zolt, 2005). Evidence of the lack of control over corruption, lack of accountability also affects public governance quality (Ibrahim, 2010; Rotberg & Gisselquit, 2009). The noncompliance behaviour may perhaps be a sign that taxpayers are dissatisfied with quality of public governance in Nigeria. Relationship between government and taxpayers is based on cost and benefits and for it to continue, it must be rewarding to all parties. In the light of the importance of public governance quality, Bird and Zolt (2005) indicated that taxpayers think that government of countries with good public governance is likely to enjoy public acceptance for the need for taxation than government of countries with poor public governance.

Taxpayers' tax compliance behaviour will be influenced by public governance quality. The following hypothesis will be tested.
Hypothesis 1 (H$_1$):   Perception of public governance quality influences tax compliance behaviour

TRANSPARENCY
Transparency is the open flow of information (Piotrowski, 2007; Holzner & Holzner, 2006). Piotrowski (2007) also states that 'governmental transparency equates to open government'. According to Asian Development Bank (1995), transparency is 'the availability of information to the general public and clarity about government rules, regulations and decisions'. Transparency also defined as the availability of information about an organization or actor allowing external actors to monitor the internal workings or performance of that organization (Grimmelikhuijsen, 2012). Most definitions of transparency recognize the extent to which an entity reveals related information about its own decision processes, procedures, functioning, and performance (Grimmelikhuijsen 2012 ;Curtin and Meijer 2006; Welch, Hinnant, and Moon 2005; Gerring and Thacker 2004). In terms of its object, transparency concerns separate events and processes of government (Grimmelikhuijsen and Welch 2012; Heald 2006): (1) transparency of decision making processes, (2) transparency of policy content, and (3) transparency of policy outcomes or effects. Decision making transparency includes two subtypes: the degree of openness about the steps taken to reach a decision and the rationale behind the decision. Decision making transparency has been more extensively conceptualized and operationalized (Drew and Nyerges, 2004). Policy transparency refers to the information disclosed by government about the policy itself: what the adopted measures are, how they are supposed to solve a problem, how they will be implemented and what implications they will have for citizens and other affected groups. Finally, policy outcome transparency captures the provision and timeliness of information about policy effects.

Instead of just divulging more information, transparency also implies that information is disclosed in a timely matter and presented in an understandable format. According to (Heald 2012; Drew and Nyerges 2004; Larsson 1998), timeliness and comprehensibility are considered to be two vital elements in the transparency of policy outcome. Information timeliness is a vital element of policy outcome transparency since it enables citizens to obtain information about government policies when these still matter. Additionally, Larsson (1998,) emphasized that transparency should include simplicity of the information made available. With similar opinion, Drew and Nyerges (2004) also mentioned that the clarity of information is an important dimension of transparency.
The lack of transparency in financial instruments has been deemed one of the major factors in causing the 2008–2009 near-global economic crises, since that time transparency has gained additional

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

294

popularity. Also, one of the major themes of President Obama's 2008 election campaign is increasing transparency. Since his election, he introduced "sunlight before signing", which allow for public comments by posting new legislation on the web for five days before the president signs the bills into law (Thomma and McClatchy, 2009).

On the other hand, Kraus (2006) concluded, 'There is no empirical evidence that political financial disclosures has resulted in a more aware electorate'. Also, academic works by economists provide a major modification to the theory of transparency with the introduction of transaction costs—including the cost of collecting and processing information. This element allows one to recognize that consumers and voters may not find it efficient to absorb and process all the disclosed information. This applies to all the cases in which the costs of additional collecting and processing of information, of additional 'search', exceed the expected gains (Etzioni, 2010).

Transparency deterred public officials from misused public service, to deter against corrupt behaviour by promoting citizens' vigilance (Florini, 2007). O'Neill (2006) also observes that it can thus serve as a strategy to deter corruption and correct poor performance. Transparency has a positive effect on trust and accountability (Heald, Holzner and Holzner, 2006) as it allows citizens to keep an eye on the quality of public services and encourages public employees to satisfy citizens. In addition, Heald (2006) stresses that transparency is expected to contribute positively to trust by building credibility.

Most of the literature stated that mainly positive effects of transparency (on trust) are expected (Cook, Jacobs, and Kim 2010; Birkinshaw 2006; Blendon, Benson, Morin, Altman, Brodie, Brossard and James 1997; Bok 1997; Nye, Zelikow, and King 1997). Also, better informed citizens are likely to have more trust in government (Meijer, 2009). According to transparency proponents, "lifting the veil of secrecy" is beneficial to all of us and that only those who have something to hide be against transparency.

Rawlins (2008) points out that transparency together with trust is an important indicator of a satisfactory relationship between a government and the public. Corruption frustrates the public, leading to reduced trust in governments, hence reduces citizens perception of government performance in public services. On the other hand, Park and Blenkinsopp (2011) highlighted that greatly increased transparency would decreases corruption, and enhance trust and satisfaction of citizens. The findings stressed that transparency and trust need to be taken into account as important factors in developing policy aimed at reducing corruption and improving citizen satisfaction. Another important findings is that the transparency clearly plays a key role as moderator and mediator respectively, in the relation between corruption, trust, and citizen satisfaction, and Holzner and Holzner (2006) go as far as to argue that transparency is a value likely to change the relation between citizens and authorities, making it necessary for governments to strengthen their disclosure of information.

In contrast, there are scholars who emphasized the negative effects of transparency (Etzioni 2010; O'Neill 2006, 2002; Bovens 2003). They claimed that mere transparency may worsen communication by spreading confusion, so it could lead to politics of scandal or misinformation, hence could eventually lead to less instead of more trust. By making use of increased transparency it is easier for citizens to audit government; the negative aspect of this is that citizens might blame government for small mistakes over time (Worthy 2010; Bovens 2003). With same opinion, Grimmelikhuijsen (2011) indicated that actual transparent and thus more balanced messages give rise to more critical evaluations of a government organization's competence. In the end providing information about one's policies with some positivism might provide people with the more secure feeling that government knows what it is doing and where it is heading.

Policy outcome transparency was acted according to the degree the information was timely and comprehensible. Both the comprehensibility and timeliness of the information varied across groups concurrently, which means that only the overall effect can be assessed and not the effect of each element separately. A study by Grimmelikhuijsen and Meijer, (2012) indicated that participants who were accessible with comprehensible and timely information found the government organization more trustworthy than those presented with hard-to-comprehend and "old" information about policy outcomes.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

295

Grimmelikhuijsen and Meijer, (2012) mentioned that individuals anticipate local government to be transparent and it lead to satisfaction if their expectations are fulfilled. For citizens with a high predisposition trust, being transparent only meets the expectation that this is part of a normally functioning government. This is in line with prior research, for example, Piotrowski and Van Ryzin (2007) found a high demand of citizens for transparency. Those with a high general predisposition to trust are only disappointed in the competence of a specific government organization if policy outcomes are not that transparency, whereas low predisposed citizens are positively surprised and perceived the municipality to be acting in the citizens' interest (i.e., benevolence).

Government organizations provide information proactively to citizens through websites, so websites are an important tool for transparency in this regard. In general government websites are often used as a means to communicate with the public and spread press releases about good work they do and what policy measures are carried out (Mahler and Regan, 2007).

Transparency optimists (Cook, Jacobs and Kim 2010; Hood 2006; Blendon et al. 1997; Bok 1997) highlighted that transparency is said to encourage a 'culture of openness' within organizations, or at least the perception of having an open culture, which is believed to have a positive effect on trust. In addition, according to transparency proponents, 'lifting the veil of secrecy' will be beneficial to all of us and that only those who have something to hide will oppose transparency. Finally, transparency helps people to become more familiar with and knowledgeable about, government and to bring them closer and creating understanding.

It is often argued that transparency will enhance public acceptance of institutional structures. According to political theory, giving citizens the possibility of monitoring policymaking and scrutinizing its results will enhance the legitimacy of the institutional structures. The Internet is argued to play an important role in increasing the transparency of government and, consequently, strengthens its legitimacy. In European Union (EU) internet plays a very vital role and is the major medium to guarantee transparency to the widely scattered population of Europe. European websites grant access to an enormous amount of information on European policymaking and policy-execution. Hence, internet is the best channel for communicating complex and complete information (Curtin and Meijer, 2006).

In contrast, scholars argued that a greater degree of transparency generates the possibility to unfairly repeatedly blame the government for mistakes. Scholars argue that transparency leads to a great deal of information, yet it does not mean this leads to increased levels of trust. Also, transparency pessimists mentioned that increased transparency could lead to increased blaming of government. According to scholars, a fault by government can always be construed, and if citizens, media and politicians use transparency for their own gain with no restraints, this could result in the 'politics of scandal' (Bovens, 2003). In addition, Bovens also warns about another 'dark side of transparency: when people can see everything behind the scenes of government, they may become disenchanted with government. People notice that behind the scenes, government operations are not as rational as it appears from the outside. Increased information might expose limitations of what government can do, thus decreasing political trust. Curtin and Meijer (2006) also indicated that many citizens in EU show no interest in information, so, their social legitimacy will not be influenced by increased transparency. Worse, media and those wishing to damage the reputation of the EU may exploit the transparency. This may even result in negative effects of transparency on social legitimacy. Citizens may not want to belong to an institution when they hear only about all the mistakes.

Transparency helps people become more familiar, closer and better understanding with government. Nye, Zelikow, and King (1997) highlighted that with the information technology revolution, it may help government reach this goal. When citizens feel a closer connection to government then trust in government tends to be higher. Therefore, the following hypotheses are offered.

Hypothesis 2.1 ($H_{2.1}$):   Transparency of decision making process influences tax compliance behaviour.
Hypothesis 2.2 ($H_{2.2}$):   Transparency of policy content influences tax compliance behaviour.
Hypothesis 2.3 ($H_{2.3}$):   Transparency of policy outcome influences tax compliance behaviour.

TAX COMPLIANCE BEHAVIOUR

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

296

Tax compliance has been defined in various ways. It can be defined as the taxpayers' ability and willingness to lodge appropriate tax returns in accordance with the requirements of the law. An appropriate tax return refers to one that is correctly prepared, with full disclosure as required by the tax law and lodged within the statutory specified deadline at the designated tax administration office. Tax compliance behaviour may be perceived as a rational economic decision-making process; as a reaction to perceived fairness; as an ethical conduct or as an action due to ignorance. Each of these factors is isolated factor and may not by itself contribute to particular compliance behaviour (Ho, Loo, and Lim 2006). Past empirical studies highlighted that tax compliance behaviour varies widely over individual circumstances (Friedland, Maital and Rutenberg 1978) and influenced by factors such as the desire to avoid sanction (Smith and Kinsey 1987 and 1985) and subjected to group influence (Wallschutzky 1993) as well. Taxpayers may under-declare their income and would be deterred only by the chances of detection and penalties imposed (Srinivasan 1973; Allingham and Sandmo 1972).

Alm (1991) and Jackson and Milliron (1986) also defined tax compliance as the reporting of all incomes and payment of all taxes by fulfilling the provisions of laws, regulations and court judgments. Another definition of tax compliance is a person's act of filing their tax returns, declaring all taxable income accurately, and disbursing all payable taxes within the stipulated period without reminder from the authority (Singh 2003). Moreover, tax compliance has also been separated into two perspectives, namely compliance in terms of administration and compliance in terms of completing (accuracy) the tax returns (Chow 2004; Harris 1989).

The importance of taxpayer attitudes in influencing compliance behaviour is supported by Song and Yarbrough (1978). They suggested that due to the remarkable aspect of the operation of the tax system in the United States and that it is largely based on self assessment and voluntary compliance, so taxpayers' compliance was determined by the overall legal environment (the legitimacy of the tax law), the tax ethics of the citizen (understanding and acceptance of legal obligation) and other factors (such as level of income, unemployment rate, tax rate) operating at a particular time and place.

PROPOSED CONCEPTUAL FRAMEWORK

Figure 3.1: Research Framework for Determinants of Personal Income Tax Compliance in Malaysia

CONCLUSION
In general, educated countries have better governments due to higher expectation from citizens. Also, governments' activities are being monitored by citizens, as a mechanism to force government to have better performance. When citizens get what they want, they tend to comply with the personal income tax regulations.
Transparency is important in public sector but not easy to achieve especially the public expenditure. Taxpayers' are concerned about how government spent their money as these are their money. An increase in transparency will lead to greater trust to government hence greater personal income tax compliance as well.
Taxpayers' compliance behaviour is definitely influenced by a number of factors other than mentioned as above, so further studies is necessary.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

297

References

A. Florini, Introduction: the battle over transparency, in: *The Right to Know. Transparency for an open world*, A. Florini, ed., Colombia University Press, New York, NY, 2007, pp. 1–16.

AG Report 2013: Failure in the System due to non-compliance and poor attitude (2013, October 2). http://www. transparency.org.my (accessed May 23, 2014).

Akpo, U. (2009). The people as government: The importance of tax payment. *Akwa Ibom State Revenue Summit*. Uyo: Akwa Ibom State Internal Revenue Service.

Alabede, J. O., Affrin, Z. Z., & Idris, K. M. (2011). Determinants of tax compliance behaviour: A proposed model for Nigeria. *International Research Journal of Finance and Economics*, ISSN 1450-2887 Issue 78 (2011).

Allingham, M.G. and Sandmo, A.S. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1: 323-338.

Alm, J. (1991). A perspective on the experimental analysis of taxpayer reporting. *The Accounting Review,* 66(3), 577-93.

Alm, J., & Gomez, J. L. (2008). Social capital and tax morale in Spain. *Economic Analysis and Policy* , 38(1), 34-47.

Alm, J., McClelland, G. H., & Schulze, W. D. (1992). Why do people pay taxes? *Journal of Public Economic* , 48(1),21-38.

Asian Development Bank (1995). *Governance: Sound development management*. WP1-95.

B. Worthy, More open but not more trusted? The effect of the Freedom of Information Act 2000 on the United Kingdom Central Government, *Governance: An International Journal of Policy, Administration, and Institutions* 23(4) (2010), 561–582

Besancon, M. (2003). *Good governance ranking : the art of measurement.* Cambridge: World Peace Foundation.

Bird, R. M., & Zolt, E. M. (2005). Redistribution via taxation:The limited role of the personal income tax in developing countries. *Journal of Asian Economics* , 16(1),928-946.

Birkinshaw P. (2006). Transparency as a human right. In: Hood C and Heald DA (eds).Transparency: The Key to Better Governance? Proceedings of the British Academy 135, Oxford, Oxford University Press, 47–57.

Botero, J., Ponce, A., & Shleifer, A. (2012). *Education and the quality of government* (No. w18119). National Bureau of Economic Research.

Bovaird, T., & Löffler, E. (2003). Evaluating the quality of public governance: indicators, models and methodologies. *International Review of Administrative Sciences*, *69*(3), 313-328.

Chow, C.Y. (2004). Gearing up for the self assessment tax regime for individuals. *Tax Nasional,* 2nd quarter, 20-23.

C.H. Drew and T.L. Nyerges, Transparency of environmental decision making: A case study of soil cleanup inside the Hanford 100 area, *Journal of Risk Research* **7**(1) (2004), 33–71.

Commonwealth of Australia 2007. Australian Government, Australian Public Service commission, Building better governance.

D. Bok, Measuring the Performance of Government, in: *Why People Don't Trust Government*, J. Nye, P. Zelikow and D. King, eds, Cambridge, MA, Harvard University Press, 1997, pp. 55–75.

D.C. King, The polarization of American Parties and mistrust of government, in: *Why people don't trust government*, J.S. Nye, P.D. Zelikow and D.C. King, eds, Cambridge: Harvard University Press, 1997, pp. 155–178.

Deirdre Curtin and Albert Jacob Meijer, 2006. Does transparency strengthen legitimacy? *Information Policy 11 (2006) 109-122.*

E.W. Welch, E.W. Hinnant and M.J. Moon, Linking Citizen Satisfaction with E-government and trust in government, *Journal of Public Administration Research and Theory* 15(3) (2005), 371–391.

Everest-Phillip, M., & Sandall, R. (2009). *Linking business tax reform with governance: How to measure sucess.* Working paper, Investment Climate Department, World Bank Group.

Etzioni, A. (2010). Is transparency the best disinfectant? *Journal of Political Philosophy*, *18*(4), 389–404. doi:10.1111/j.1467-9760.2010.00366.

F.L. Cook, L.R. Jacobs and D. Kim, Trusting what you know: Information, knowledge, and confidence in social security, *The Journal of Politics* **72**(2) (2010), 397–412.

Friedland, N., Maital, S. and Rutenberg, A. (1978). A simulation study of income tax evasion. *Journal of Public Economics*, 10: 107-116

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

298

Graham J., Amos B., Plumptre T., "Principles for good governance in the 21st century", Policy brief No. 15, Institute on Governance (2003)

Grimmelikhuijsen, Stephan G., and Eric W. Welch. (2012). Developing and testing a theoretical framework for computer-mediated transparency of local governments. *Public Administration Review* 72(4):562–571.

Harris, T.D. (1989). *The effect of type of tax knowledge on individuals' perceptions of fairness and compliance with the federal income tax system: An empirical study.* PhD Thesis, University of South Carolina

Heald, D. (2012). Why is transparency about public expenditure so elusive? *International Review of Administrative Sciences*, *78*(1), 30-49.

Heald DA (2006a) Varieties of transparency. In: Hood C and Heald DA (eds) Transparency: The key to better governance? *Proceedings of the British Academy 135. Oxford: Oxford University Press*, 25–43.

Heald DA (2006b) Transparency as an instrumental value. In: Hood C and Heald DA (eds) Transparency: The key to better governance? *Proceedings of the British Academy 135. Oxford: Oxford University Press*, 59–73.

Ho, J. K., Loo, E. C., & Lim, K. P. (2006). Perspective of non-taxpayers' perception on issues of ethics and equity in tax compliance. *Malaysian Accounting Review, 5*(2), 47-59.

Holzner, B., & Holzner, L. (2006). *Transparency in global change – The vanguard of the open society.* Pittsburgh, PA: University of Pittsburgh Press.

Hood, C. (2006). Transparency in historical perspective. In C. Hood & D. Heald (2006). *Transparency – The key to better governance* (pp.3-23). New York: Oxford University Press.

Ibrahim, M. (2010). *2010 African governance summary.* Mo Ibrahim Foundation. http:// www.moibrahimfoundation.org (accessed July 17, 2011).

Jackson. B.R., and Milliron, V.C. (1986). Tax compliance research: Findings, problems, and prospects. *Journal of Accounting Literature*, 5, 125-65.

J. Gerring and S.C. Thacker, Political institutions and corruption: The role of unitarism and parliamentarism, *British Journal of Political Science* **34** (2004), 295–330.

Jeffrey Kraus, "Campaign finance reform reconsidered: New York's public finance program after fifteen years," *The Forum*, 3 (2006), 20 (article 6). See also: Nathaniel Persily and Kelli Lammi, "Perceptions of corruption and campaign finance: when public opinion determines constitutional law," *University of Pennsylvania Law Review*, 153 (2004), 119–80 at pp. 119–20.

J. Mahler and P.M. Regan, Crafting the message: Controlling content on agency Web sites, *Government Information Quarterly* 24(3) (2007), 505–521.

Larsson, Torbjörn. (1998). How open can government be? The Swedish experience. In *Openness and transparency in the European Union*, ed. V. Deckmyn and I. Thomson, 39–51. Maastricht: European Institute of Public Administration.

Lassen, D. D. (2003). *Ethnic division and the size of the informal sector.* Working paper, Institute of Economics, University of Copenhagen.

Lee Shi-Ian. Auditor General to meet public today over his report. *The Malaysian Insider*, October 10, 2013. http://www.themalaysianinsider.com (accessed May 23, 2014).

Levi, Margaret. (1988). Of rule and revenue. Berkeley: University of California Press.

Loshana K Shagar. Auditor General's Report Highlights Five General Weaknesses. *The Star Online,* October 1, 2013. http://www.thestar.com.my (accessed May 23, 2014).

Malaysia on track to achieve 33% skilled labour by 2015. *The Star Online,* December 17, 2013. http://thestar.com.my/news (accessed February 14, 2014).

M.A.P. Bovens, *De Digitale Republiek: Democratie en rechtsstaat in de informatiemaatschappij,* Amsterdam University. Press, Amsterdam, 2003.

Mann, A. J., & Smith, R. (1988). Tax attitudes and tax evasion in Puerto Rico:A survey of upper income professionals. *Journal of Economic Development*, 13(1), 121-141.

Manning, N. (2005). Management in government: Feasibility Report on the Development of Comparative Data. *Paris: OECD GOV/PGC (2005)*, *10*, 31.

Manning N., Kraan D-J. (2006). "The metrics of tracking change in the public sector", Call for Papers for the Eleventh International Research Symposium on Public Management, Organization for Economic Cooperation and Development

Martin Carvalho. 'Final tax' system not in effect yet. *The Star Online,* January 22, 2014. http://thestar.com.my/news (accessed February 14, 2014).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

299

Meijer, A. (2009). Understanding modern transparency. *International Review of Administrative Sciences, 75*(2), 255-269.

National Audit Department (2013). *Auditor General Report Year 2013.*

Odinkonigbo, J. J. (2009). *Rethinking the Nigeria's tax policy toward achieving tax compliance.* Unpublished doctoral thesis, York University,Toronto.

O'Neill O. (2006). Transparency and the ethics of communication. In: Hood C and Heald DA (eds) Transparency: The Key to Better Governance? Proceedings of the British Academy 135. Oxford: Oxford University Press, 75–90.

Only one million Malaysians are eligible taxpayers – IRB. *New Straits Times,* June 20, 2013. http://www.nst.com.my (accessed May 23, 2014).

Only 1.7 million active taxpayers in nation. *The Borneo Post*, September 11, 2011. http://www.theborneopost.com (accessed May 23, 2014).

O'Toole, Laurence J., Jr., and Kenneth J. Meier. (1999). "Modeling the impact of public management: The Implications of Structural Context," *Journal of Public Administration Research and Theory* 9 (October): 505-526.

Ovute, F. E., & Eyisi, A. S. (2014). The impact of tax systems and environments on federally collectible tax revenue : A study of some selected States of South-, *5*(5), 91–103.

Park, H. and Blenkinsopp, J. (2011). The roles of transparency and trust in the relationship between corruption and citizen satisfaction, *77*, 254–274.

Piotrowski SJ .(2007). Governmental transparency in the path of administrative reform. Albany, NY: State University of New York.

R. Blendon, J. Benson, R. Morin, D. Altman, M. Brodie, M. Brossard and M. James, Changing attitudes in America, in: *Why people don't trust government*, J. Nye, P. Zelikow and D. King, eds, Cambridge, MA, Harvard University Press, 1997, pp. 205–216.

Rawlins, B.L. (2008). Measuring the relationship between organizational transparency and employee trust. *Public Relations Journal*, *2*(2), 1-21

Rotberg, R. I., & Gisselguist, R. M. (2009). Strengthening African governance: Index of African governance results and rankings. Cambridge: World Peace Foundation.

Singh, V. (2003). *Malaysian tax administration.* 6th ed. Kuala Lumpur: Longman.

Smith, K.W and Kinsey, K.A., (1985). Cooperation and control: strategies and tactics for tax examination. *Tax Administration Review*, Dec: 13-29.

———. (1987). Understanding taxpaying behaviour, A conceptual framework with Implications for research*. Law and Society Review*, 21(4): 639-663.

Song, Y.D., and Yarbrough, T.E. (1978). Tax ethics and taxpayer attitudes: A survey. *Public Administration Review*, 38(5), 442-452.

Srinivasan, T.N. (1973). Tax evasion: A modal. *Journal of Public Economics*, 2: 237-346.

Stephan Grimmelikhuijsen, Albert J. Meijer, (2012). Effects of transparency on the perceived trustworthiness of a government organization: Evidence from an online experiment. Journal of Public Administration Research and Theory, Inc, November 5, 2012.

Stephan Grimmelikhuijsen, 2011. Being transparent or spinning the message? An experiment into the effects of varying message content on trust in government. Information Polity 16 (2011) 35-50, DOI 10.3233/IP-2011-0222, IOS Press.

Steven Thomma and Kevin G. Hall McClatchy, "President rolls out financial regulation proposal," *The Spokesman-Review*, June 18, 2009.

The Auditor-General's Report, a tale of greed from top to bottom. *The Malaysian Insider*, October 02, 2013. http://www.themalaysianinsider.com (accessed May 23, 2014).

TI Malaysia calls on greater transparency in procurement of defence (2013, September 18). http://transparency.org.my (accessed July 26, 2014).

TI-M lauds AG's report 2013 and urges PM to ensure suspected corruption cases are investigated (2014, June 17). http://transparency.org.my (accessed July 26, 2014).

Torgler, B. (2003). *Tax morale: Theory and analysis of tax compliance.* Unpublished doctoral dissertion, University of Zurich,Switzerland.

Van Ryzin, G. (2007). Pieces of a puzzle: Linking performance, satisfaction, and trust in government. *Public Performance and Management Review*, *30*(4), 521-535.

Wallschutzky, I. (1993). Achieving Compliance. Paper presented at the *Australian Tax Teacher Association Conference*, January 17-19, New Zealand.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

300

Effective Depreciation Model of Automobiles in Malaysia

Alan Lim Khiew Loon[a], M.Krishna Moorthy[b],

Theresa Wong Lai Har[c]

[a] Faculty of Business and Finance (UTAR), Malaysia, lkloon@utar.edu.my

[b] Faculty of Business and Finance (UTAR), Malaysia, krishnam@utar.edu.my

[c] Faculty of Business and Finance (UTAR), Malaysia, wonglh@utar.edu.my

Abstract

Depreciation is an accounting accrual that can be accounted by various methods to arrive at the current value of the assets. There is an open opportunity for manager to manipulate the depreciation by applying the depreciation method that is favourable to achieve his earning management since at present there is no accounting standard to indicate that a specific depreciation method is required to be followed. In order to avoid such profit exaggeration, standardization of the depreciation accounting method must be worked out. The current research would concentrate on the standardization of depreciation method to act as an effort in preventing unfair practice of the earnings management. Current research would emphasize on automobiles asset category to carry out the depreciation models analysis. It is believed that the age of the vehicles is not the main factor that causing the reduction in the value of the motor vehicles, as empirical studies found that the value of the motor vehicles would not be reduced much if the motor vehicles were not heavily used. Hence, current research would include an additional factor by incorporating the mileage of the motor vehicles into analysis, and perform the depreciation calculation on the data collected together with three most popular accounting depreciation models that are commonly practiced by businesses in Malaysia. The results would be compared against the market value to determine the most effective depreciation model that can best reflect the current value of the motor vehicles, and this would be suggested to the Malaysian Accounting Standards Board (MASB) for standardization of depreciation accounting method.

Keywords: Depreciation, Automobiles, Accounting Standards

Introduction

In Malaysia, since the implementation of Malaysian Financial Reporting Standards (MFRS) on 1 February 2012, there is no specific standard stating the depreciation method that is required to be used by any person in valuing the assets, similar as the International Financial Reporting Standards (IFRS). All persons, especially institutional persons, have their own preference to select the depreciation method of valuing their owned assets which generate better benefit to them. Generally, the benefit for the institutional persons would be the reported earnings. There is substantial past evidence that institutional

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

301

executives engage in earning management, which means managing earnings by manipulation of accruals with no direct effect on cash flow (accrual manipulation) (Roychowdhury, 2006). Depreciation is one of the accounting accruals that require estimates and the current reporting standard is allowing it to become a potential item for manipulation by any person (Baruch Lev, 2003). Since the depreciation can be accounted by various methods to reach the fair value of the assets, there is an open opportunity for the manager to manipulate the depreciation by applying the depreciation method that is favorable to publish earnings or financial statements that are reflecting the management's desired outcome or image. It represents a serious problem for the users of the financial statements to make decisions based on the designed financial information produced by the management (Mendes, 2012). Hence, financial reporting reliability has recently become a severe problem (Lin et. al., 2014).

In order to avoid such profit exaggeration activity carried on by managers, accounting method standardization must be worked out, and the current research would concentrate on the standardization of depreciation model to act as, at least, one of the efforts in preventing earnings management activity. It would be the primary objective of this research to conduct analysis that can determine a uniform depreciation method to be regulated by Malaysian Accounting Standards Board (MASB) in Malaysia to become a standard depreciation allocation practice by the management of corporations. The current research would focus on one particular asset category, which is motor vehicle, to conduct the analysis on the relevant factors that can influence the depreciation expense of this asset category to act as the starting point on depreciation standardization process. Such asset category is selected due to the high trading frequency in Malaysia as compared to other asset categories.

Past literatures regarding the depreciation on motor vehicles have been studied and reviewed. All the past researches were conducted by applying economic depreciation models, which would not be suitable to apply for corporations in financial reporting process. Hence, depreciation models are allowed by MASB under MFRS 116 – Property, Plant and Equipment would be more suitable to conduct the analysis of this research, which including Straight Line Model, Declining Balance Model and Sum-of-digit Model. Furthermore, the variable that applied in majority of the past researches regarding the depreciation of automobiles was the age of the vehicles. However, current research believes that the age of the vehicles is not the main factor that causing the reduction on the value of the motor vehicles; but which the main factor should be the consumption of the motor vehicles. Past researchers agreed that the inclusion of the consumption of the motor vehicles, i.e., mileage, would produce a more accurate result; however, none of the past researches had included this key variable in their analysis or calculation.

Hence, a preliminary analysis had been conducted by gathering used-cars details from the most famous car trading website in Malaysia, the Carlist.my. The data collected is particularly focused on the car model that has the biggest number of the car stock available in the website, which is Toyota Vios. On 10 May 2014, a sample of 69 units of Toyota Vios with similar specifications (Auto, 1,500 CC, G Spec, KL car dealers) has been selected and the data gathered including the year of manufacturing, mileage consumed and the market price of the vehicles. All the data have been analyzed as shown in Table 1, and the result indicates that the Age of the car may not be the actual variable that influences the mileage of the car. As shown in Exhibit 1, the line graph shows the result that the mileage of cars may not be influenced directly by the age of cars as the graph shows the reduction of mileage when the age of cars reached 5 years old, 8 years old and 10 years old. Based on this finding, it is proven that the existing depreciation models which concentrate on the use of the age of vehicles are unable to reflect the real value of the vehicle accurately. Therefore, the current research would apply mileage as the key variable to produce a new conceptual framework for the depreciation model of motor vehicles, which is named as Consumption model, and the analysis is conducted together with the existing depreciation models.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

302

Table 1. One-Way Anova Post Hoc Test of Age of Cars and Mileage Consumed
Multiple Comparisons

Dependent Variable: Mileage
Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
4	5	12395.833	15735.270	.993	-36989.18	61780.85
	6	-13551.682	10799.880	.912	-47447.02	20343.65
	7	-29976.500	10608.717	.108	-63271.87	3318.87
	8	-6226.375	11621.267	.999	-42699.63	30246.88
	9	-35049.300*	10175.524	.022	-66985.10	-3113.50
	10	-28601.375	11621.267	.232	-65074.63	7871.88
	11	-50226.500*	14233.087	.017	-94896.93	-5556.07
5	4	-12395.833	15735.270	.993	-61780.85	36989.18
	6	-25947.515	15138.767	.678	-73460.41	21565.38
	7	-42372.333	15002.991	.108	-89459.10	4714.43
	8	-18622.208	15735.270	.934	-68007.22	30762.81
	9	-47445.133*	14699.869	.040	-93580.55	-1309.72
	10	-40997.208	15735.270	.174	-90382.22	8387.81
	11	-62622.333*	17751.778	.017	-118336.14	-6908.52
6	4	13551.682	10799.880	.912	-20343.65	47447.02
	5	25947.515	15138.767	.678	-21565.38	73460.41
	7	-16424.818	9701.981	.692	-46874.41	14024.77
	8	7325.307	10799.880	.997	-26570.03	41220.64
	9	-21497.618	9226.313	.295	-50454.32	7459.09
	10	-15049.693	10799.880	.857	-48945.03	18845.64
	11	-36674.818	13570.716	.142	-79266.40	5916.76
7	4	29976.500	10608.717	.108	-3318.87	63271.87
	5	42372.333	15002.991	.108	-4714.43	89459.10
	6	16424.818	9701.981	.692	-14024.77	46874.41
	8	23750.125	10608.717	.344	-9545.25	57045.50
	9	-5072.800	9001.795	.999	-33324.86	23179.26
	10	1375.125	10608.717	1.000	-31920.25	34670.50
	11	-20250.000	13419.083	.800	-62365.68	21865.68
8	4	6226.375	11621.267	.999	-30246.88	42699.63
	5	18622.208	15735.270	.934	-30762.81	68007.22
	6	-7325.307	10799.880	.997	-41220.64	26570.03
	7	-23750.125	10608.717	.344	-57045.50	9545.25
	9	-28822.925	10175.524	.106	-60758.72	3112.87
	10	-22375.000	11621.267	.539	-58848.25	14098.25
	11	-44000.125	14233.087	.056	-88670.55	670.30
9	4	35049.300*	10175.524	.022	3113.50	66985.10
	5	47445.133*	14699.869	.040	1309.72	93580.55
	6	21497.618	9226.313	.295	-7459.09	50454.32
	7	5072.800	9001.795	.999	-23179.26	33324.86
	8	28822.925	10175.524	.106	-3112.87	60758.72
	10	6447.925	10175.524	.998	-25487.87	38383.72
	11	-15177.200	13079.304	.940	-56226.49	25872.09
10	4	28601.375	11621.267	.232	-7871.88	65074.63
	5	40997.208	15735.270	.174	-8387.81	90382.22
	6	15049.693	10799.880	.857	-18845.64	48945.03
	7	-1375.125	10608.717	1.000	-34670.50	31920.25
	8	22375.000	11621.267	.539	-14098.25	58848.25
	9	-6447.925	10175.524	.998	-38383.72	25487.87
	11	-21625.125	14233.087	.794	-66295.55	23045.30
11	4	50226.500*	14233.087	.017	5556.07	94896.93
	5	62622.333*	17751.778	.017	6908.52	118336.14
	6	36674.818	13570.716	.142	-5916.76	79266.40
	7	20250.000	13419.083	.800	-21865.68	62365.68
	8	44000.125	14233.087	.056	-670.30	88670.55

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

303

| 9 | 15177.200 | 13079.304 | .940 | -25872.09 | 56226.49 |
| 10 | 21625.125 | 14233.087 | .794 | -23045.30 | 66295.55 |

*. The mean difference is significant at the 0.05 level.
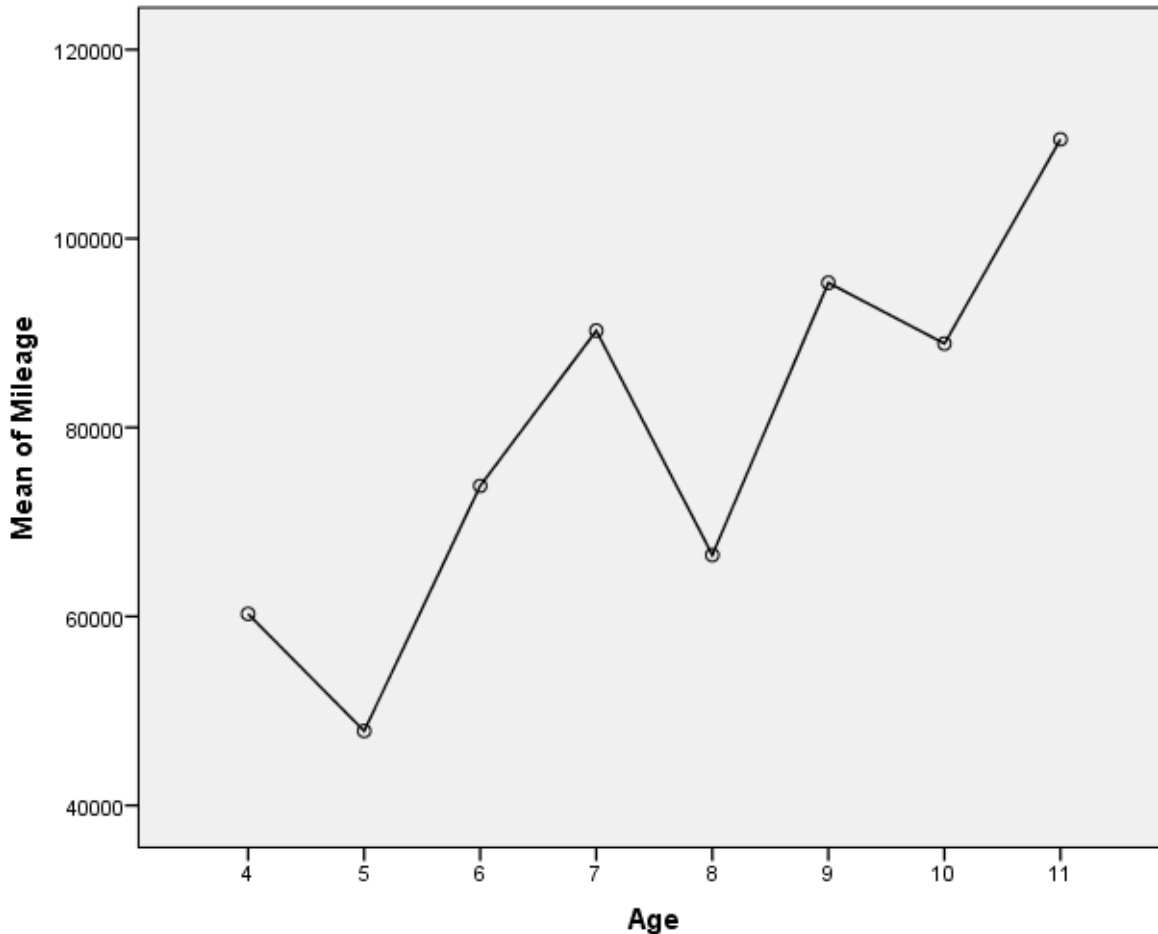
Exhibit 1. Means Plots of Age of Cars and Mileage of Cars

As a conclusion, due to the significant increase in the frequency or occurrence on window-dressing financial statements, investors are encountering a high risk situation while investing their capital into a company which is showing untrue earnings as well as unreal company performance. Hence, it could result in significant loss incurred by investors (Lin et. al., 2014) and lead to lack of confidence towards the financial reporting system that is applying by the companies. As a result, accounting measurement would no longer have credit worthiness or reliability to public and could be abandoned forever in the coming future. The higher financial reporting quality would result a lower debt maturity, which is a mechanism that contributes positively in improving investment efficiency (Gomariz, 2014). Therefore, to enhance the financial reporting quality and the investors' confidence towards financial reporting system, accounting methods or models standardization must be taken place. The current research that focuses on the depreciation model standardization for motor vehicles would serve as one of the efforts to prevent earnings management and improve financial reporting quality. Current research would contribute a brand new proposal to the MASB in considering the depreciation model standardization, as well as to educate the public who are the stakeholders of the corporations in Malaysia for not being misled by the management's window-dressed financial reports.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

304

Literatures Review

Motor vehicles
By referring to Laws of Malaysia, under Second-hand Dealers Act 1946, a motor vehicle is defined as "*a mechanically propelled vehicle intended or adapted for use on roads*". There are many categories of motor vehicle in Malaysia. The classification of the motor vehicles in Malaysia follows the Road Transport Act 1987, Section 5.

Depreciation
Depreciation accounting, which is known as allowing an annual expense for the estimated loss in asset value due to its wear and tear, was firstly introduced in 1830's and 1840's with the growth of industries that employing high value and long lived assets, particularly in railroads. However, such a newly introduced policy was strongly opposed by many nineteenth century railroads. By 1909, the Supreme Court in U.S. started to fully recognize the legitimacy of depreciation accounting for regulated industries[4]. As per General Accepted Accounting Principles (GAAP), depreciation is a systematic and rational process of distributing the cost of tangible assets over the life of the assets. According to Malaysian Financial Reporting Standards - MFRS 116 Property, Plant and Equipment that has been implemented by Malaysian Accounting Standards Board (MASB) since 1 February 2012, depreciation is the systematic allocation of the depreciable amount of an asset over its useful life[5], and such useful life can be determined by referring to the expected usage of the asset, expected physical wear and tear, technical or commercial obsolescence, and legal limits on the use of the asset[6].

Depreciation Methods / Models
There are common depreciation calculation methods practiced by companies in Malaysia, including Straight line method, Declining Balance Methods, and Sum-of-the-year-digits method. MFRS 116 Property, Plant and Equipment, paragraph 62 states that "*A variety of depreciation methods can be used to allocate the depreciable amount of an asset on a systematic basis over its useful life. These methods include the straight-line method, the diminishing balance method and the units of production method.*"[7] In other words, any of the above mentioned methods can be practiced by any company or industry to generate its annual depreciation charges. Such an option provided by MASB can result in the generation of inconsistent depreciation result among the companies operating in Malaysia, as well as cause confusion to investors regarding the evaluation on the profitability of a few potential Malaysian companies which are practicing different depreciation methods.

Fair Value of Assets
With the depreciation accounting taken place, fair value of assets can be produced to indicate the real worth of the assets, rather than subject to different judgment that formed by either the buyer or seller of the assets. United Kingdom (UK) GAAP, Australia GAAP and International Financial Reporting Standards (IFRS) allow companies to apply cost model or revaluation model in determining the fair value of the assets. Cost model would allow the fair value of the asset to be determined by using the original cost of the asset by subtracting the total depreciation charged on the asset, while revaluation model measures the fair value of the asset after a revaluation process by subtracting the total depreciation subsequently. Researches shown that 43% of the UK companies were applying revaluation model to determine the fair value of their assets during the years 1983 to 1995 (Aboody et. al., 1999), and 45% of the Australian companies practiced similarly during the years 1991 to 1995 (Barth & Clinch, 1998), however, such revaluation model application was dramatically declined from early of 1990s due to lower inflation

---

[4] David W. Brazell, Lowell Dworin, Michael Walsh (1989). *A History of Federal Tax Depreciation Policy*, Office of Tax Analysis Paper 64, May 1989.

[5] Malaysian Accounting Standards Board (2012), *Malaysian Financial Reporting Standard 116 Property, Plant and Equipment*. Paragraph 6, Page 568.

[6] Malaysian Accounting Standards Board (2012), *Malaysian Financial Reporting Standard 116 Property, Plant and Equipment*. Paragraph 56, Page 577.

[7] Malaysian Accounting Standards Board (2012), *Malaysian Financial Reporting Standard 116 Property, Plant and Equipment*. Paragraph 62, Page 578.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

305

experienced in economies as well as strict accounting standards imposed to tighten the revaluation requirements (Cairns et. al., 2011).

In Malaysia, MFRS 13 – Fair Value Measurement[8] defines fair value as "*The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.*" MFRS 116 – Property, Plant & Equipment[9] indicates that the fair value of land and buildings is normally determined by professional valuers' appraisal by following market-based evidence, while the fair value of plant & equipment would be determined based on market value that is determined by appraisal.

Theoretical Framework

Majority of the past researchers were using economic depreciation theory to conduct their analyses which include both time series depreciation and cross-section depreciation. Time series depreciation was proposed by Hotelling (1925) who indicated that the depreciation is the decline of the current value of the assets that owned by an entity due to physical deterioration, normal obsolescence or accidental damage. Time series depreciation includes the calculation of depreciation by straight line method and geometric depreciation method. Cross-section depreciation is an asset price profile which expresses the value of different vintages of the same homogeneous type of asset at the same point of time as a function of their ages (Peter Hill, 1999).

Several past literatures completed by Smolyak (2012), Storchmann (2004), Dumler, Burton and Kastens (2003), Peles (1990), Parks (1977), Wykoff (1970), and Cramer (1958) related the depreciation of motor vehicles had been reviewed and a few findings had been concluded.

Research Objective of Past Literatures

The main objective was to introduce a better depreciation method and to show the actual depreciation patterns of automobiles. Another objective served was having an intention to reduce the number of automobiles especially in developing countries by thinking of ways to accelerate the depreciation of used automobiles for environmental issue purpose. The stated objectives have shown the contribution of the research paper of depreciation of automobiles.

Variables of Depreciation

All the past literatures that stated above applied age of cars as the main variable to determine the depreciation charges of the motor vehicles. However, age of the asset, especially in terms of automobiles, is not a main factor to determine the secondhand value of the automobiles, which the current research believes that it should be the consumption of the automobiles that determine the value reduction of such assets. Generally, an ageing automobile may not cause environmental problem much if it is not heavily consumed by the owner. There will not be much emission produced when the automobile may seldom be utilized and the condition of an automobile can still be considered well. Only when the automobile is heavily consumed or utilized, the condition or engine parts of the automobile will become ageing and cause more emission generated that harm the environment.

Data Collection

All the past literatures were using the used-cars details, including market price, models of used-car, and age of the used-cars, from related periodicals and publications. All the past literatures have collected the secondary data based on convenience sampling, which is a non-probability sampling technique that consists of various disadvantages. By using convenience sampling technique in data collection, the collected data may subject to unfair judgment or bias, which also very unlikely to represent the overall population in producing the desired outcome. It will greatly undermine the ability in making generalizations from the samples selected to the studied population.

---

[8] Malaysian Accounting Standards Board (2012), *Malaysian Financial Reporting Standard 13*. Paragraph 9, Page 12.
[9] Malaysian Accounting Standards Board (2012), *Malaysian Financial Reporting Standard 116 Property, Plant and Equipment*. Paragraph 32, Page 573.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

306

Research Result

The research results generated by past researches, in overall, concluded that the depreciation value is higher in the early years and lower in the later years, and benefit of automobiles is vulnerable to factor like repair cost. Such a conclusion generated was consistent among the researches done on depreciation of automobiles. Past researchers had also commented that the inclusion of the usage of automobiles, i.e., mileage, would be able to produce a better or more accurate research result on the depreciation value of automobiles. However, none of the past literature has conducted analysis with the inclusion of this important variable.

Past Conceptual Framework of Depreciation Models

According to John H. Myers (1958), the formula used for Straight line method can be written as $D = \frac{1}{N} C$, where D is the annual depreciation, C is the depreciable cost, and N is representing the estimated life of the asset. For Double declining balance method, the formula can be written as $D = \frac{2}{N} B$, where B is the remaining balance of the asset. Since the method that is utilized in the current research is only Declining balance method, the Double declining balance method should be rewritten as $D = \frac{1}{N} B$. Lastly, for Sum-of-digit method, the formula can written as $D = \frac{2}{L+1} B$, where L is the number of years left of the life. These formulas were provided by Myers's research with the objective to enable the non-mathematician accountant to directly compute the provisions for depreciation and balance reserves, as well as to allow the auditors to test the provisions calculated by their audit clients on yearly basis.

Myers's depreciation formulas are quite similar with the formulas provided by Aijaz Ahmad Baba (2013) in his research work titled A Conceptual Framework on Depreciation. In Aijaz's research, the formula of Straight line method, Declining balance method and Sum-of-digit method are written as follows:

Straight line : $\text{Depreciation} = \frac{Cost\ of\ asset - Scrap\ value\ at\ the\ end}{Life\ of\ the\ asset}$

Declining balance : Depreciation = Balance value of asset x certain %

Sum-of-digit : Depreciation =
$Amount\ to\ be\ written\ off\ X\ \frac{Number\ of\ years\ of\ the\ remaining\ life\ of\ asset\ including\ the\ current\ year}{The\ total\ number\ of\ all\ the\ digits\ representing\ the\ life\ of\ the\ asset}$

Meanwhile, an additional depreciation method is widely used on depreciating plant and machinery, called Unit-of-production method[10], in which the depreciation of the assets can be calculated by applying the following formula:

Unit-of-production : $\text{Depreciation} = \frac{Number\ of\ unit\ produced}{Life\ in\ number\ of\ units}\ X\ (Cost - Scrap\ value)$

According to Malaysian Financial Reporting Standard (MFRS) 116 – Property, Plant & Equipment, various depreciation models can be applied to calculate the depreciation charges over the useful life of the assets. However, the selected depreciation model must be applied consistently in every accounting period and should closely reflect the pattern of the consumptions of economic benefit produced by the asset throughout the useful life of the asset. There is no depreciation model fixed or standardized for the annual depreciation charges calculation of any asset category since the establishment of the MFRS on 1 February 2014.

---

[10] http://accountingexplained.com/financial/non-current-assets/units-production-depreciation

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

307

Research Methodology and Design

Current Conceptual Framework of Depreciation Models

There always exists a need to determine the value of equipment that exceeds its reasonable service life, which could have been utilized less intensely and makes its condition to be comparable with the younger age equipment (Smolyak, 2012). Since assets are happened to be used over its reasonable life, the age of asset would no longer be an effective factor to determine the value of the asset, and hence, the current research would apply mileage as the key variable in conducting the analysis and produce a new conceptual framework for the depreciation model of motor vehicles, which is named as Consumption model. Based on the formulas provided by both researchers, Myers (1958) and Aijaz (2013), current research would include an additional formula named as Consumption method, which is the average of Straight Line method together with modification done on the Unit-of-production method formula by incorporating the M, which representing the total mileage of an automobile can be consumed, and m, which representing the mileage consumed by a particular automobile since its production time into the above formulas. Myers and Aijaz's formulas together with the newly included Consumption method formula would then be written as follows:

Straight line : Depreciation = $\dfrac{(Cost\ of\ asset - Scrap\ value\ at\ the\ end)}{Life\ of\ the\ asset}$

Declining balance : Depreciation = Balance value of asset x certain %

Sum-of-digit : Depreciation =

$$Amount\ to\ be\ written\ off\ X\ \dfrac{Number\ of\ years\ of\ the\ remaining\ life\ of\ asset\ including\ the\ current\ year}{The\ total\ number\ of\ all\ the\ digits\ representing\ the\ life\ of\ the\ asset}$$

Consumption : Depreciation = $\dfrac{\dfrac{(Cost - Scrap\ Value) \times m}{M} + \dfrac{(Cost - Scrap\ Value) \times Age\ of\ Cars}{Total\ Life\ of\ Cars}}{2}$

Since the new method that is introduced in current research, Consumption method, would calculate the depreciation of automobile by using the mileage used and the maximum total mileage that an automobile commonly practices, an assumption on the total mileage that practicing by all automobile would be required. Referring to the proposed framework for End-of-life vehicle (ELV) recycling system in Malaysia prepared by Muhammad Azmi et. al. in 2013, there is no standard working practice for ELV recycling in Malaysia, but it does have in China. The ELV age set under Statute 307 in China for motor vehicles is either 10 years or 500,000 km. Assuming the ELV recycling system in other countries will follow the ELV age set by China, then we can assume, in general, that the total mileage consumed for the life of motor vehicles would be 500,000 km and 10 years would be the maximum life applied in the formula like Straight line method and Sum-of-digit method. According to the statistical research conducted by R. L. Polk, a provider of automotive information to the automotive industry in U.S. country, the average age of light vehicles on the road was 10.9 years in 2010, 11.2 years in 2011, and it stands at a record high of 11.4 years in 2012[11]. So, to be prudent in depreciation calculation, it would be better to follow the ELV standard from China, which the maximum life of vehicles is 10 years. Then, further convert the maximum life into percentage. If a motor vehicle needs to be fully depreciated at the end of 10 years, it indicates that such motor vehicle should be depreciated by around 60% per annum by using Reducing balance method, and then the balance value, as known as net book value, of the asset can only be almost reaching zero value. With a RM50,000 vehicles cost as the example, it would left RM5.24 of net book value at the end of the 10 years life if it is depreciated by 60% of Reducing balance method.

---

[11] http://www.autonews.com/article/20130806/RETAIL/130809922/average-age-of-u.s.-car-light-truck-on-road-hits-record-11.4-years

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

308

By applying the assumed total life of the motor vehicle in year, percentage, and mileage into the four depreciation methods that analyzed in current research, the formula of the respective depreciation method can be rewritten as follows:

Straight line : Depreciation = $\dfrac{(Cost\ of\ asset - Scrap\ value\ at\ the\ end)}{10}$

Declining balance : Depreciation = Balance value of asset x 60%

Sum-of-digit : Depreciation =

Amount to be written off x $\dfrac{Number\ of\ years\ of\ the\ remaining\ life\ of\ asset\ including\ the\ current\ year}{55}$

Consumption : Depreciation = $\dfrac{\frac{(Cost - Scrap\ Value) \times m}{500,000} + \frac{(Cost - Scrap\ Value) \times Age\ of\ Cars}{10}}{2}$

Preliminary Data Analysis

By applying the similar data gathered for the preliminary analysis above, which is Toyota Vios. On 10 May 2014, a sample of 69 units of Toyota Vios with similar specifications (Auto, 1,500 CC, G Spec, KL car dealers), a sample test has been run by comparing the results generated by Straight Line model as compared to the newly introduced Consumption model. The results generated are shown in Appendix A. The results show that the net book value of the cars by applying Straight Line model is having a great difference with the Selling Price obtained of the cars if compared to the Consumption model, where Consumption model would have a closer net book value with the Selling Price of the cars.

Data Collection

The current research would focus on asset category of motor vehicles, which will fall under plant & equipment category, rather than land and building, thus the current market value of the motor vehicles would be used for the fair value of this asset category, as there is no room for motor vehicles to be revalued in a higher fair value like land and buildings. As a result, the best indicator would be the market value of the motor vehicles in determining the fair value of this asset category, and the selling price obtained from the second-hand car dealers in Malaysia would be the best source of data for the market value of motor vehicles. Based on the news posted by Motor Trader in February 2012, the vehicle population in Malaysia as on 31 December 2011 is reached a total of 21,401,269 vehicles, which the top 5 States in Malaysia that having the highest vehicle population is shown in figure 1. The information gathered from Motor Trader website in July 2014, a total number of 8,756 used cars are trading in the websites, and the state that with the highest trading of used car is Kuala Lumpur (4,996 used cars), then followed by Selangor (1,048 used cars) and Penang (985 used cars)[12]. Meanwhile, used cars data obtained in July 2014 from Carlist.my shows that the state that has highest trading of used car is Kuala Lumpur with 52,566 used cars, then followed by Selangor with 36,244 used cars, Negeri Sembilan with 5,949 used cars and Penang with 3,389 used cars[13]. Therefore, the current research is planning to obtain used-car details from second-hand car dealers of the three States that have the most used cars trading in average, which are Kuala Lumpur, Selangor and Penang, and it is believed that the details obtained from these three States could be used to represent the overall used car details in Malaysia.

---

[12] http://www.motortrader.com.my/usedcar/index.html
[13] http://www.carlist.my/used-cars?search=1

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

309
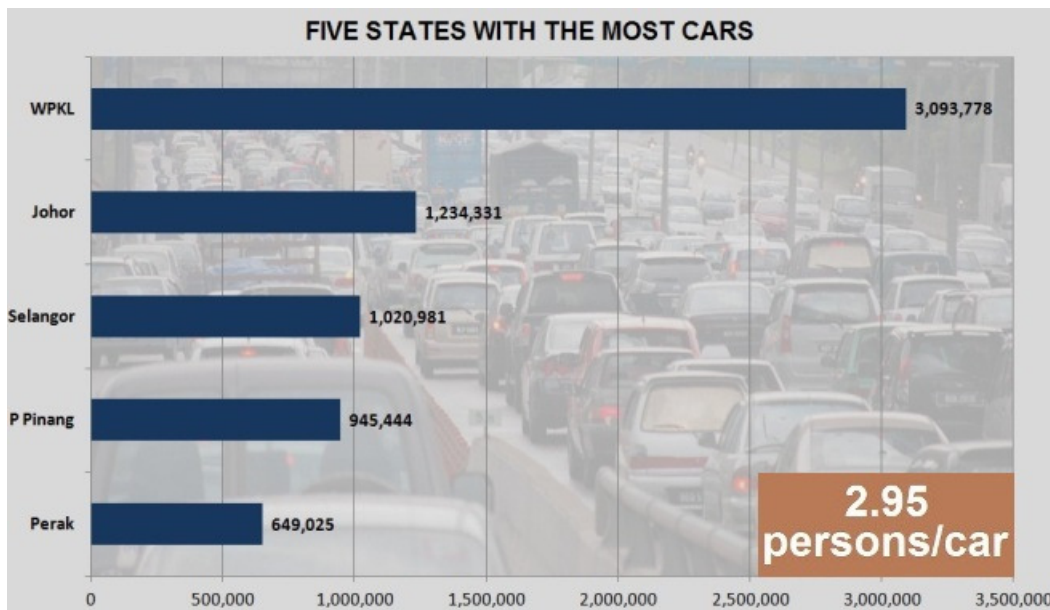
Figure 1. Top 5 states with the most cars in Malaysia[14]

Sample Size

To determine the sample size of the used-car selection in conducting the research analysis, it is planned to apply the sample size formula, as follows:

$$SS = \frac{Z^2 \times p \times (1-p)}{C^2}$$ [15]

The Z is the confidence level that the actual mean falls, p is the percentage picking a choice or standard deviation that determine the expected variance of the response, and C is confidence interval which also known as margin of error that indicates the allowable error percentage. In current research, it is planned to have 95% of confidence level, 50% of standard deviation, and 5% of allowable error percentage. Therefore, the sample size can be calculated based on the formula below:

$$SS = \frac{1.96^2 \times 0.5 \times (1-0.5)}{0.05^2} = 384.16$$

As a result, it is decided to select a sample size of 385 cars from the three selected States in Malaysia above. Since Kuala Lumpur (KL) is having the highest number of used-car trading as compared to Selangor and Penang, it would be more appropriate to select a higher number of samples from KL, followed by second highest sample from Selangor and lower sample number from Penang. Thus, it is planned to select the desired 385 used cars sample from the three states according to the percentage, which 65% (250 used cars) from KL, 20% (77 used cars) from Selangor, and 15% (58 used cars) from Penang.

Sampling Methods

Since the data is going to be collected from second-hand car dealers from the three States mentioned above, it is planned to apply Snowball sampling method by approaching a particular dealer who is available to be interviewed and willing to offer the used-car details, and seek for the dealer's recommendation on any other second-hand car dealer that is available to be interviewed. After that, obtain the used-car details from the dealers that had been recommended by the first approached dealer. Such sampling method would allow the necessary data to be gathered in more efficient manner, as approaching the recommended dealers would seem better than approaching other dealers randomly, which random selected dealers may not disclose their used-car details voluntarily.

---

[14] http://www.motortrader.com.my/news/malaysia-s-vehicle-population/
[15] http://www.surveysystem.com/sample-size-formula.htm , http://www.qualtrics.com/blog/determining-sample-size/ , http://www.macorr.com/sample-size-methodology.htm

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

310

Meanwhile, the selection of the used-cars data from the selected dealers would be based on Systematic Random sampling method, which is a probability sampling method that allowed the sample to be selected systematically from the pre-determined number on the population of the dealers' used-cars, and each used-car would have the equal chance to be selected to form a fair data selection. The main reason to apply systematic random sampling method to obtain the used-cars sample is in order to avoid inconvenience that may cause to the dealers who agreed to be interviewed as such method manages to select the data much faster than other probability sampling methods, since the data can be selected immediately by referring to the number in the list of the used-cars that are provided by the dealers.

Sampling Technique

Current research would conduct interview with the initial and recommended used-car dealers to obtain the necessary information and data for the research analysis purpose. After that, the used-cars details that have been selected by the sampling method as mentioned above would be applied in calculation by using the four depreciation models discussed above to determine the best model that can produce the used-car value that is closest to the market price of the used-car.

Conclusion

Current research would like to conduct analysis to conclude the best depreciation model for motor vehicle asset category and to propose such determined depreciation model to MASB for accounting depreciation model standardization purpose in order to minimize the manipulation of the optional depreciation model in earnings management process by corporate users. Current research would act as the primary effort in depreciation model standardization which can be referred by other asset categories to continue the standardization effort to prevent earnings management activity, and hence, improve the credibility of the financial reporting system that is currently practiced in Malaysia. In addition, the standardized depreciation model can create a new idea for public users in Malaysia to determine the value of used-cars which is more or less similar with the market price of the used-cars.

References

Aboody, D., Barth, M., & Kasznik, R. (1999), Revaluations of fixed assets and future company performance: evidence from the UK. *Journal of Accounting and Economics*, 26, 149–178.

Ahmad Baba, Aijaz (2013). A conceptual framework on depreciation. *National Monthly Refereed Journal of Research in Commerce & Management*, volume 2, issue no. 6, 138-142.

Azmi, Muhammad, et. al. (2013). Proposed framework for end-of-life vehicle recycling system implementation in Malaysia. *11th Global Conference on Sustainable Manufacturing*, 187-193.

Barth, M., & Clinch, G. (1998), Revalued financial tangible and intangible assets: associations with share prices and non-market based value estimates. *Journal of Accounting Research*, 36(Suppl.), 199–233.

Cairns, D., Massoudi, D., Taplin, R., and Tarca, A. (2011), IFRS fair value measurement and accounting policy choice in the United Kingdom and Australia. *The British Accounting Review 43*, 1-21.

Cramer, J. S. (1958). The depreciation and mortality of motor-cars. *Journal of the Royal Statistical Society. Series A (General)*, volume 121, no. 1, 18-59.

David W. Brazell, Lowell Dworin, Michael Walsh (1989). *A History of Federal Tax Depreciation Policy*, Office of Tax Analysis Paper 64, May 1989.

Dumler, Troy J., Burton, Jr., Robert O., and Kastens, Terry L. (2003). Predicting farm tractor values through alternative depreciation methods. *Review of Agricultural Economics*, volume 25, number 2, 506-522.

Gomariz, F.C., and Ballesta, J.P.S (2014). Financial reporting quality, debt maturity and investment efficiency. *Journal of Banking and Finance*, 40, 494-506.

Hill, R. J. and Hill, T. P. (1999), A New Conceptual Approach to the Measurement of Capital Gains, Depletion and Net National Product. *University of New South Wales Discussion Paper*, UNSW, Sydney, 1999.

Hill, T. P. (1999). Capital stocks, capital services and depreciation. 1-19.

Hotelling, H., (1925), A General Mathematical Theory of Depreciation. *Journal of the American Statistical Association*, Sept 1925, 340-353.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

311

Law of Malaysia (2006), Road transport act 1987. *The Commissioner of Law Revision, Malaysia*. Page 19-21.

Law of Malaysia (2006), Second-hand dealers act 1946. *The Commissioner of Law Revision, Malaysia*. Page 5.

Lev, B. (2003), Corporate earnings: facts and fiction. *Journal of Economic Perspectives*, vol. 17, no. 2, Spring 2003, 27-50.

Lin, F. et. al. (2014), The relations among accounting conservatism, institutional investors and earnings manipulation. *Economic Modelling 37 (2014)*, 164-174.

Malaysian Accounting Standards Board (2012), Malaysian Financial Reporting Standard 13 Fair Value Measurement. 12.

Malaysian Accounting Standards Board (2012), Malaysian Financial Reporting Standard 116 Property, Plant & Equipment. 578.

Mendes, A., Rodrigues, L. and Esteban P. (2012), Evidence of earnings management using accruals as a measure of accounting discretion. *Review of Applied Studies (2012)*, 10, 3-14.

Myers, John H. (1958). Useful formulae for DDB and SYD depreciation. *The Accounting Review*, 93-95.

Parks, Richard W. (1977). Determinants of scrapping rates for postwar vintage automobiles. *Econometrica*, volume 45, no. 5, 1099-1115.

Peles, Yoram C. (1990). On accounting and economics methods of depreciation. *Journal of Accounting, Auditing & Finance*, 309-327.

Roychowdhury, S. (2006), Earnings management through real activities manipulation. *Journal of Accounting and Economics*, 42, 335-370.

Smolyak, S.A. (2012). Models for estimating depreciation in plants, machinery, and equipment: analysis and proposals. *Journal of Property Tax Assessment & Administration*, Volume 9, Issue 3, 47-86.

Storchmann, Karl (2004). On the depreciation of automobiles: An international comparison. *Transportation*, 31, 371-408.

Wykoff, Frank C. (1970). Capital depreciation in the postwar period: Automobiles. *The Review of Economics and Statistics*, volume 52, no. 2, 168-172.

Wykoff, Frank C. (1973). A user cost approach to new automobile purchases. *The Review of Economic Studies*, volume 40, no. 3, 377-390.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

312

Appendix A. Comparison Table of Net Book Value between Straight Line and Consumption model

No	Year of Manufacturing	Duration used	Mileage	Selling Price	Cost	Straight Line		Consumption	
						Net Book Value	Difference	Net Book Value	Difference
1	2003	11	120,000	31,800	88,500	(8,850)	40,650	29,205	2,595
2	2003	11	91,000	39,800	88,500	(8,850)	48,650	31,772	8,029
3	2003	11	91,000	33,300	88,500	(8,850)	42,150	31,772	1,529
4	2003	11	140,000	34,800	88,500	(8,850)	43,650	27,435	7,365
5	2004	10	90,000	36,800	88,500	-	36,800	36,285	515
6	2004	10	106,000	33,888	88,500	-	33,888	34,869	(981)
7	2004	10	109,000	37,800	88,500	-	37,800	34,604	3,197
8	2004	10	20,000	35,000	88,500	-	35,000	42,480	(7,480)
9	2004	10	100,000	35,800	88,500	-	35,800	35,400	400
10	2004	10	110,000	29,800	88,500	-	29,800	34,515	(4,715)
11	2004	10	75,999	30,800	88,500	-	30,800	37,524	(6,724)
12	2004	10	100,000	35,000	88,500	-	35,000	35,400	(400)
13	2005	9	93,000	34,600	88,500	8,850	25,750	40,445	(5,845)
14	2005	9	63,000	35,700	88,500	8,850	26,850	43,100	(7,400)
15	2005	9	92,000	33,800	88,500	8,850	24,950	40,533	(6,733)
16	2005	9	120,000	32,800	88,500	8,850	23,950	38,055	(5,255)
17	2005	9	97,000	36,800	88,500	8,850	27,950	40,091	(3,291)
18	2005	9	98,000	38,800	88,500	8,850	29,950	40,002	(1,202)
19	2005	9	90,000	34,700	88,500	8,850	25,850	40,710	(6,010)
20	2005	9	85,000	34,800	88,500	8,850	25,950	41,153	(6,353)
21	2005	9	99,623	35,800	88,500	8,850	26,950	39,858	(4,058)
22	2005	9	89,000	37,800	88,500	8,850	28,950	40,799	(2,999)
23	2005	9	88,654	35,800	88,500	8,850	26,950	40,829	(5,029)
24	2005	9	90,000	34,999	88,500	8,850	26,149	40,710	(5,711)
25	2005	9	155,000	40,800	88,500	8,850	31,950	34,958	5,843
26	2005	9	80,000	40,800	88,500	8,850	31,950	41,595	(795)
27	2005	9	89,565	35,800	88,500	8,850	26,950	40,748	(4,948)
28	2006	8	67,000	38,800	88,500	17,700	21,100	47,171	(8,371)
29	2006	8	80,000	39,800	88,500	17,700	22,100	46,020	(6,220)
30	2006	8	100,000	40,000	88,500	17,700	22,300	44,250	(4,250)

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

313

31	2006	8	90,000	39,800	88,500	17,700	22,100	45,135	(5,335)
32	2006	8	62,000	37,800	88,500	17,700	20,100	47,613	(9,813)
33	2006	8	85,000	38,800	88,500	17,700	21,100	45,578	(6,778)
34	2006	8	28,000	38,800	88,500	17,700	21,100	50,622	(11,822)
35	2006	8	19,999	35,800	88,500	17,700	18,100	51,330	(15,530)
36	2007	7	56,000	40,777	88,500	26,550	14,227	52,569	(11,792)
37	2007	7	130,000	38,800	88,500	26,550	12,250	46,020	(7,220)
38	2007	7	105,000	47,800	88,500	26,550	21,250	48,233	(433)
39	2007	7	88,000	47,800	88,500	26,550	21,250	49,737	(1,937)
40	2007	7	89,000	49,800	88,500	26,550	23,250	49,649	152
41	2007	7	76,000	41,800	88,500	26,550	15,250	50,799	(8,999)
42	2007	7	78,000	48,800	88,500	26,550	22,250	50,622	(1,822)
43	2007	7	87,000	49,800	88,500	26,550	23,250	49,826	(26)
44	2007	7	85,000	41,700	88,500	26,550	15,150	50,003	(8,303)
45	2007	7	90,000	43,800	88,500	26,550	17,250	49,560	(5,760)
46	2007	7	114,000	39,700	88,500	26,550	13,150	47,436	(7,736)
47	2007	7	85,000	45,600	88,500	26,550	19,050	50,003	(4,403)
48	2008	6	55,000	52,700	88,500	35,400	17,300	57,083	(4,383)
49	2008	6	85,000	47,900	88,500	35,400	12,500	54,428	(6,528)
50	2008	6	80,000	52,800	88,500	35,400	17,400	54,870	(2,070)
51	2008	6	58,725	54,300	88,500	35,400	18,900	56,753	(2,453)
52	2008	6	78,000	49,800	88,500	35,400	14,400	55,047	(5,247)
53	2008	6	90,000	53,700	88,500	35,400	18,300	53,985	(285)
54	2008	6	82,000	55,800	88,500	35,400	20,400	54,693	1,107
55	2008	6	92,000	83,800	88,500	35,400	48,400	53,808	29,992
56	2008	6	80,000	56,800	88,500	35,400	21,400	54,870	1,930
57	2008	6	59,000	51,000	88,500	35,400	15,600	56,729	(5,729)
58	2008	6	52,352	58,000	88,500	35,400	22,600	57,317	683
59	2009	5	58,000	56,800	88,500	44,250	12,550	61,242	(4,442)
60	2009	5	47,000	56,800	88,500	44,250	12,550	62,216	(5,416)
61	2009	5	38,633	49,800	88,500	44,250	5,550	62,956	(13,156)
62	2010	4	60,000	55,800	88,500	53,100	2,700	65,490	(9,690)

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

314

63	2010	4	40,000	55,000	88,500	53,100	1,900	67,260	(12,260)
64	2010	4	80,356	53,800	88,500	53,100	700	63,688	(9,888)
65	2010	4	65,000	59,900	88,500	53,100	6,800	65,048	(5,148)
66	2010	4	43,500	58,000	88,500	53,100	4,900	66,950	(8,950)
67	2010	4	40,000	56,900	88,500	53,100	3,800	67,260	(10,360)
68	2010	4	27,000	63,800	88,500	53,100	10,700	68,411	(4,611)
69	2010	4	126,332	60,800	88,500	53,100	7,700	59,620	1,180

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

315

Perception of Undergraduate Accounting Students towards Professional Accounting Career

Azni Suhaily Samsuri[a], Tengku Rahimah Tengku Arifin[b], Suhaili Mohd Hussin[c]

[a]*UniversitiTunku Abdul Rahman, Malaysia, azni@utar.edu.my*
[b]*UniversitiTunku Abdul Rahman, Malaysia, rahimah@utar.edu.my*
[c]*UniversitiTunku Abdul Rahman, Malaysia, suhaili@utar.edu.my*

Abstract

Prior studies indicate that people's perception have an important influence on their career decision. Career decision plays a major role in the way students recognize their future career prospects. There are lots of determinants that influence accounting students' perceptions on professional accounting career such as job stability and opportunities for advancement. In Malaysia, the result shows that only few percentages among students with the intention to pursue professional qualification while the remaining plans to immediately go for work after graduating not in accounting areas. In this regard, this theoretical paper proposes to study the factors affecting the perception of undergraduate accounting students towards professional accounting career. Motivation, interest/ambition, parent desired, opportunities and salary scale are the main factors highlighted in this paper. It is expected this study has vital implication for educational institutions, relevant accounting professional bodies and career counselors. This study may potentially influence the accounting students in order to make decision of pursuing professional accounting career.

Keywords: Perception, Undergraduate Accounting Students, Professional Accounting Career

Introduction

Accountancy is a career which offers a graduate environment, people contact, professional qualification, high salaries and opportunities for advancement. Prior research focused on the most important career choice factors which may helps universities to improve and develop areas specific for accounting curriculum which is responsible to attract the students to join accounting field. Career decision plays a major role in the way students recognize their future career prospects. Hence, the professional accounting career has expressed concerned about the shortage of talented university in producing graduates in accounting choices. Prior studies document that there are several reasons for applying to accounting. UK Graduate Careers Survey (2010) highlighted that the top reason because of opportunities for professional qualifications. Professional accounting career refers to a designation given by accounting bodies to those who has pass an exam and meet work experience requirements. Recently in Malaysia, the main issue when the country needs more accountants to assist the country to achieve the nation of 'Wawasan 2020'. However, not many qualified people are establishing in the fields and it may give a sign that a few determinants may affect the undergraduate students to continue on this areas.

Accounting Perceptions: The Influencing Factors

There have been extensive studies from past researches on the influencing factors on perception among undergraduate accounting students towards professional accounting career. However, there is lack researches focused to another determinants such as motivational factors, family desired and interest or ambition of students. Many past studies argued different determinants may affect the perception for

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

316

students in choosing the accounting as their career as well. The present study proposes to find out the role of some of the influencing factors on perception among undergraduate accounting students.

Motivation

"Internalized drive towards the dominant thought of the moment. You cannot motivate anyone. You can only create a situation to which individuals will response because they choose to." (Gordon P. Rabey Managing Director of Paige Associates, Brooklyn West, New Zealand.)

Many of researchers came out that motivation based on the needs. However, in selecting the future people always perceived what they have been through. The students must be motivated to coordinate the outcome, know and understand the realities of the process in the career choices (Borchert, 2002) and able to cope with other factors as well. According to Alexandera, Holmner, Lotriet, Matthee, Pieterse, Naidoo, Twinomurinzi and Jordaan (2011) stated when referring to the future, students may self motivate themselves to achieve their goals including their personal standards. Many researchers have identified that the choice of accounting also influence by student's interest (Odia & Ogiedu, 2013). Students can motivate in the subject when they're know the ability for study accounting. It is supported by Saeman and Crooker (1999) when students tendency to choose accounting career when they see accounting as interesting subject. However, Pecjak and Kosir (2007) examine there is differences between personality and motivational factors in the kind of career decision making process. The study document that lack of motivation from students may gives difficulties for students to make choices. Due on that reason, some students believe accounting to be too number oriented and not interesting anymore (Odia & Ogiedu, 2013). Thus the possibitily for students to further in this career choices may be low. On the other hand, the fact show that a very powerful motivation may comes from family members. Anguelova (xx), concludes that parent may gives major inluences for students in order to make career choices. Therefore, contradict results appeared and show positive sign that this career are good to be employ.

Interest/Ambition

In general, there are many universities and colleges that offer undergraduate business degrees around the world particularly in western world. This includes the accounting course as a major (Jackling & Calero, 2006). Students join or choose to major in accounting normally as a result of their interests in that particular area or ambitions since secondary school. In Malaysia, most of the students that major in accounting are those from the art stream in secondary school and have sat for the Principle of Accounting paper in the Malaysian Certificate of Education. However some are from the science stream with basic accounting foundation from their foundation study, pre-university course, matriculation or others. As a professional accountant, the career covers a more broaden areas of financial planning, assurance services and management services, not only the repetitive and routine tasks. Therefore, a much broader perspectives on the accountant's work are needed by those who intend to pursue an accounting career (Jackling & Calero, 2006).

A study by Jackling and Calero (2006) found that students who studied accounting at secondary school level tend to choose accounting as their career if compared to those who never study accounting at secondary school level. This may due to the interest of the students in accounting course and the ambition that has been developed since secondary school level. The researchers also found that students who enjoyed the topics in the accounting area and satisfied with the course intend to undertake career in accounting. Their result suggest that intention of the students to become a professional accountant is particularly due to their genuine interest in the accounting field and not because of any extrinsic rewards such as good salary and other promotional opportunities. Therefore, the findings show that the interest of the students in accounting filed is related to the university education choices.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

317

Furthermore, according to Geiger and Ogilby (2000), individual instructors play a major role in influencing students to major in accounting. This shows that the accounting students rely on the information given by the instructors or those who are experts in that area in choosing accounting as their major. The results of Geiger and Ogilby (2000) study indicate that the students with intention to major in accounting perceived the course more positively compared to non-accounting majors. Besides, their results also show weakened perceptions at the end of the accounting course as compared to beginning of the semester due to increase indication of boredom with the accounting course. This can affect the intention of the accounting students to continue with the professional course and become the professional accountant or opt for other career. Besides, Jackling and Calero (2006) also suggest that the role of the accounting educators are important at the first year level in determining the intentions of students to become a professional accountant as the satisfaction in the accounting course was the most significant predictor.

Parent Desired

The influence of others on the career aspirations is vital especially the parental educational background, parental encouragement and parental influence. The study by Byrne, Willis and Burke (2012) documented that most of their respondents who are the school leavers, agreed that parents are the most influential referent on their career decisions although not considered very influential. Besides, Jackling, Lange, Philips and Sewell (2012) stated that parents of both Australian and international accounting students play the most influence on the career choice of their children. This may due to the life experience of the parents, their educational background and other forces. The researchers studied the motivations factors of Australian and international students in studying accounting and choosing accounting as a profession.. As a whole, the perception of the parents as well as the students' views of the profession influence the students' career choice (Zyl & Villiers, 2011).

A study by Tan and Laswad (2006) on the factors that impact the students' intention to major in accounting or non-accounting discipline has documented that the referents' perceptions play an important role. Using the theory of planned behavior on the sample of 1,009 business students, the researchers found that parents were the only stronger influence on the students' intentions to major in accounting compared to the intentions of students to major in non-accounting area. This result shows that the students tend to value the important opinions particularly their parents' in choosing their major and consequently in their career choice. Therefore, the parent opinions can become a major factor influencing the decisions of the accounting students to pursue the career as a professional accountant. As parents are the person that responsible to raise their children, they absolutely want their children to have a better career in future. Their opinions on the career choice may help their children to make a better decision. Hence, the influence of the parents may affect the intention of the accounting students to pursue the professional accounting career.

Opportunity

Students opinion may be differ with the views of people who have worked. They may be not capable to imagine what they will go through after they finish their study. In addition, most university students lately cannot exactly describe work of accountants, their responsibilities or the opportunities offered in the accounting profession. Prior studies have shown that the perceptions and stereotypes that people have are important factors that influence career decisions (Holland, 1973). Employment opportunities abound for graduating accounting majors (Warrick, Daniels & Scott, 2007). Students unfamiliar with the contemporary accounting environment may result in the wrong people being interested in an accounting career as well as creating an 'occupational reality shock' (Dean, Ferris, & Konstans, 1988) for graduates commencing employment in accounting. As the need for these accounting graduates increases, the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

318

perceptions of the accounting graduates themselves about future opportunities is of importance (Warrick, Daniels & Scott 2007).

Accounting opens doors in every type of business in the real world. The demand for accounting career appears to be rising and exceed the supply. The opportunity in today's industry is better than ever for accounting graduates. A variety job opportunities opened to accountants can be range from practice to industry, practice to government and practice to education sector. They have a choice to be a professional like Accountant, Auditor, Tax Advisor, Investment Analyst, Financial Analyst, Personal Financial Planning, Forensic Accounting, Credit Analyst, Cost Accountant, Controller, Business Consultant, Financial Planner, Government Accountant and Educator. They are also able to become a partner in an accounting firm, to pursue a career in finance or corporate management or even to become an entrepreneur. Students preferred the opportunities offered by public and private accounting (Warrick, Daniels & Scott 2007).

In 2012, from ACCA survey, ACCA students and affiliates confirms that ACCA membership brings not only financial rewards, but also valuable support from employers and the opportunity to follow a wide variety of fulfilling career paths. According to Malaysian Institute of Accountants (MIA), to date MIA has 29559 members. The demand for accountants will continue to grow from time to time. Governmental accounting was considered to offer less opportunity for using creativity, challenging students intellectually, allowing independent work, and being an enjoyable position in which to work than either public or private accounting (Warrick, Daniels & Scott 2007).

Salary Scale

In Malaysia the accounting course basically will graduates after 4 years struggles of studied. After graduated they will shift to a new life as a professional person. In 4 years of studied they will expect that they will get a post that suit with their requirement and the salary will be appropriate with their qualification. It is the salary is key factors for the accounting students to choose accounting field as their profession? The research from previous studies shows that salary is important factors for the accounting students to pick accounting as a carrier. Reha and Lu (1985) reported that accounting majors identify salary as the main reason for choosing this occupation. Haswell and Holmes (1988) and Horowitz and Riley (1990) also include salary in the top criteria influencing the career decision of students. Accountancy students agree that salary is an important factor in the accounting profession (Hashim, Ghani, Said, Mohd Nasir, 2003).

Accountancy students perceived accounting as a career and the level of starting salary they expect from this profession (Hashim et al, 2003). As a fresh graduate, they will expect that accounting career will give them an exposure with the appropriate salary. How much the starting salary expected by them when they join the workforce? According to Ghani and Said, (2009) the students were aware and realistic of the starting salary for fresh accounting graduates. Although in the long run, accountants are perceived to earn high earning income, starting salary are often lower than other business occupations (Ghani & Said, 2009). Hashim et al, 2003 reported that the starting salary for an accountant should be between RM 1,001 to RM 2,000 per month. Most of the students perceived the starting salary for accounting graduates should be between RM 2,001 and RM 3,000 (41.9%) (Ghani & Said, 2009). In 2013, the starting salary for accounting graduates should be more than RM 2,000 since the expenditure currently is very high.

After holding a college degree in accounting, many accountants hunt for additional certification. Holding a certification shows the accountants have more knowledge, skills and abilities to succeed. If they become a member of a professional accounting body, the salary will definitely will have an increment. Ghani and Said (2009) reported that the students also provide indication that in the long run however, the accounting

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

319

career promises high reward. Ghani and Said (2009) added a body of the literature has indicated that students associate an accounting career with high financial rewards. From ACCA survey in 2012, they said that accountancy provides career security, but it also generates financial rewards – ACCA qualifications enable individuals to earn high salaries and bonuses. ACCA students and affiliates receive very attractive and rising salaries as they progress through their studies towards their qualification (ACCA, 2012).

The above discussion leads to the following theoretical framework:
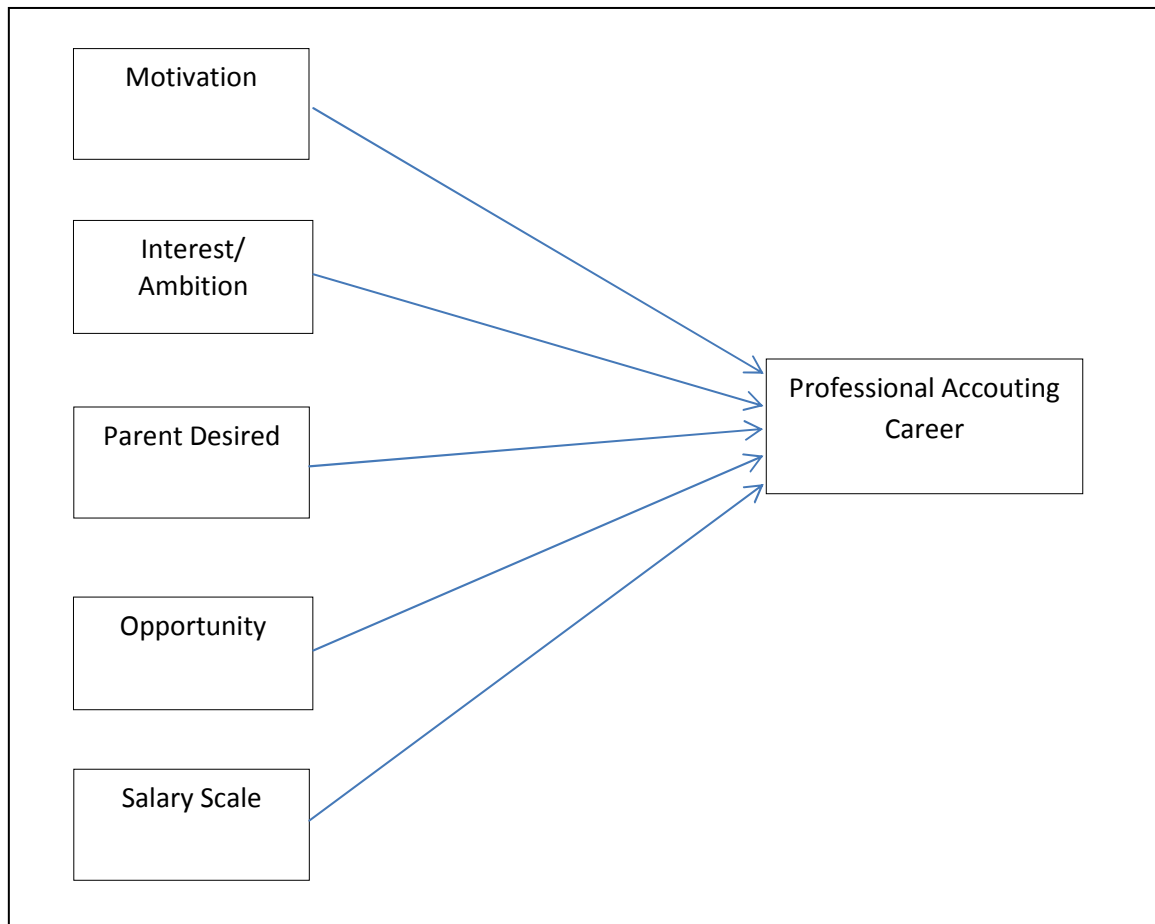
Figure 1. Theoretical framework

Source: Developed for this study

This study proposes the following hypotheses bases on the above past studies:

H1: There is a relationship between motivation and perception among undergraduate accounting students towards professional accounting career.

H2: There is a relationship between interest/ambition and perception among undergraduate accounting students towards professional accounting career.

H3: There is a relationship between parent desired and perception among undergraduate accounting students towards professional accounting career.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

320

H4: There is a relationship between opportunity and perception among undergraduate accounting students towards professional accounting career.

H5: There is a relationship between salary scale and perception among undergraduate accounting students towards professional accounting career.

Conclusion

This study proposes to test the above hypotheses with the perception among undergraduate accounting students towards professional accounting career. The results obtained will be published in the next article. If the study discover that all those factors have positive results, our findings confirm with prior studies that those factors were found to be major impact compared to other determinants towards this subject matters.

REFERENCES

ACCA students and affiliates salary and career survey 2012.

Alexander, P.M., Holmner, M., Lotriet, H.H., Matthee, M.C., Pieterse, H.V., Naidoo, S., Twinomurinzi, H., Jordaan, D. (n.d) Factors affecting career choice: Comparison between students from computer and other disciplines. Retrieved July 18, 2014 from http://www.academia.edu/3042002/Factors_affecting_career_choice_Comparison_between_students_from_computer_and_other_disciplines

Borchert, M. (2002). Career choice factors of high school students. Retrieved July 18, 2014 from http://www2.uwstout.edu/content/lib/thesis/2002/2002borchertm.pdf

Byrne, M., Willis, P. & Burke, J. (2012). Influences on School Leavers Career Decisions – Implication for the Accounting Profession. *The International Journal of Management Education,* Vol. 10, pp. 101-111.

Dean, R. A., Ferris, K.R. & Konstans, C. (1988). Occupational reality shock and organizational commitment: Evidence from the accounting profession, *Accounting, Organizations and Society* 13(3), 235-250.

Geiger, M., A. & Ogilby, S., M. (2000). The First Course in Accounting: Student' Perceptions and their Effect on the Decision to Major in Accounting. *Journal of Accounting Education,* Vol. 18, pp. 63-78.

Ghani, E. K. & Said, J. (2009). A Comparative Study on Malay and Chinese Accounting Students' Perceptions on Accounting Career. *Canadian Social Science* Vol.5 No.3 2009, pp. 1-13.

Hashim, A., Ghani, E. K., Said, J., Mohd Nasir, N. (2003). Gap In Students' Perception In Accounting Career: Uitm Vs Affiliated Colleges. BRC Report Uitm.

Haswell, S & Holmes, S. (1998). Accounting gradates employment choice. Chartered Accountant in Australia, pp. 63-67.

Horowitz, K & Riley, T. (1990). How do students' see us. Accountancy. 75-77.

I want to work in…accountancy. Retrieved July 15, 2014 from http://www.kent.ac.uk/careers/workin/accountancy.htm

Jackling, B. & Calero, C. (2006). Influences on Undergraduate Students' Intentions to become Qualified Accountants: Evidence from Australia. *Accounting Education,* Vol. 15 (4), pp. 419-438.

Jackling, B., Lange, P., D., Philips, J., Sewell, J. C. (2012). Attitudes towards Accounting Differences between Australian and International Students. *Accounting Research Journal,* Vol. 25 (2), pp. 113-130.

McKenzie, K.S. (1992). "Attitudes toward governmental accounting: a second look." *The Government Accountants Journal (Winter)*: pp. 69-78.

Odia, J.O & Ogiedu, K.O. (2013). Factors affecting the study of accounting in Nigerian Universities. *Journal of Educational and Social Research* Vol.3 No.3 September 2013, pp. 89-96.

Pecjak, S., & Kosir, K. (2007). Personality, motivational factors and difficulties in career decision-making in secondary school students. Psihologijske teme, Vol.16 No.1, pp. 141-158.

Rabey, G.P (2001). Motivation is response. *Industrial and Commercil Training* Vol. 33 No. 1, pp. 26-28.

Reha, R.K & Lu, D. (1985). What Does It Take To Be Successful on Accounting? Business Education Forum, pp. 24-28.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

321

Saemann, G.P & Cooker, K.J. (1999). Students perceptions of the profession and its effect on decisions to major in accounting. *Journal of Accounting Education*, 17, pp. 1-22.

Tan, L., M & Laswad, F. (2006). Students' Beliefs, Attitudes and Intentions to Major in Accounting. *Accounting Education: An International Journal,* Vol. 15 (2), pp. 167-187.

Warrick, S. C.; Daniels, B. & Scott, C. (2007). Accounting students' perceptions on employment opportunities. *Research in Higher Education Journal.*

Zyl, C., V. & Villiers, C., D. (2011). Why Some Students Choose to become Chartered Accountants (and Others Do Not). *Meditari Accountancy research,* Vol. 19 (1/2), pp. 56-74.

Effective Implementation of Balance Scorecard:
A Conceptual Model

M.Krishna Moorthy[a], Ong Oi Voon[b] and Fong Choong Ee[c]

[a] *Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Malaysia, krishnam@utar.edu.my*
[b] *Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Malaysia, ongov@utar.edu.my*
[c] *Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Malaysia, fongce@utar.edu.my*

Abstract

There is great interest in the implementation of the Balance Scorecard since it was first introduced in 1992. However, there is evidence that many organisations have not been successful in its implementation. This paper seeks to understand the key factors required for a successful implementation of the Balanced Scorecard as a management tool.. This paper provides a conceptual view of the literature relating to Balance Scorecard implementation and identifies the organisational and personal factors underlying successful strategy implementation. It is argued that organisational factors like frequent strategy changes, design of performance measures and organization readiness and personal factors like motivation, conscientiousness and extraversion may inhibit the successful implementation of the Balance Scorecard. The study raises a series of research questions and proposes avenues for further research. As increasing globalisation leads to intense market competitiveness and hence the need to improve customers' satisfaction, it is essential for an organisation to adopt effective performance measures that are robust. The Balance Scorecard could prove to be a viable performance measurement system.   This study provides a model that may overcome the potential barriers to the successful implementation of the Balance Scorecard and ensure that its benefits are reaped.

Keywords: Challenges/issues to Balance Scorecard implementation, personal factors, organizational factors, Malaysia.

Introduction

Balance Scorecard (BSC) is a comprehensive performance measurement encompassing financial and non-financial, covering four perspectives of the organization, ie., financial, customers, internal business process and learning and growth. The components that inhibit the effectiveness of BSC implementation on these four perspectives may be summarized under two dominant factors, organizational and personal. There is great interest to implement Balance Scorecard since its introduction in 1992. But, there is evidence that many organisations are not successful in the implementation. This paper is to develop a deeper understanding on why Balanced Scorecard is successful. This paper provides a conceptual view of Balance Scorecard implementation literature and to identify the organisational and personal factors of successful strategy implementation.

Organizational Factors

The three organizational factors include:

Frequent strategy changes in business environment

An organization's performance is influenced by its environment in which it operates. As business environment continues to change rapidly, the organization capability to perform depends on its ability to adapt to these changes (Waggoner et al., 1999). For example, changes include government policies, laws and regulations, advancement of technology and political upheaval. These changes can impact on the strategic goals. As such, management needs to change its business strategies to accommodate changes on the operations of the organization. When the change in business environment becomes more rapid, management need to review the strategy frequently. Frequent strategy changes will create major re-organization and delay the performance of Balance Scorecard from progressing.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

323

Management needs to refine the performance measures and linkages (ie., key performance indicators to the strategic goals) to become more dynamic as the business circumstances changes (Murby & Gould, 2005 ; Kennerly & Neely, 2003 ; Lynch & Cross, 1991). In addition, globalization has dominated the way business is being operated where customers demand changes, marketplace becoming more competitive and affecting nature of work through outsourcing. This creates more frequent uncertainties and risk in organizations (Waggoner et al., 1999 and Yin, 2003).

The continuous business environment changes in global markets resulted performance measures become not valid and need to be revised many times (Bourne, et al., 2000).This is essential so as to remain relevant (Lynch & Cross, 1991), practical (Fernandes, et al., 2006) and align to the organization's goals. As a result, it creates confusion and hardship in implementation of Balance Scorecard (Rompho, 2011). As business environment continue to change, it is vital that the measurement system Balance Scorecard evolve (Dixon et al., 1990) to ensure its effectiveness (Kennerly & Neely, 2003).

Design of performance measures
Traditionally, performance measures are developed to encourage a short term focus. Hence, it has been criticized and many have attempted to develop a more balanced and appropriate performance measures to reflect the organization's goals for the future. Keegan et al., (1989) proposed a balance between financial and non-financial measures and Cross and Lynch (1989) integrated the performance measures with the hierarchy of the organization. Kaplan and Norton (1992) developed the four perspectives, balancing scorecard. However, these performance measures are multi-dimensional.

Many past researchers' survey reported a general failure in Balance Scorecard (Murby & Gould, 2005) and some abandoned it. The main factor is the design of performance measures. The study indicated 78% of organizations do not rigorously review the links between strategic goals and key performance indicators and 79% do not attempt to validate the non-financial measures with future financial results. 71% of organizations did not emphasize on using a cause and effect model to measure performance because 77% of organizations placed very little or no reliance on the model. Overall, 45% admitted it was a major problem to quantify the non-financial measures and link to financial measures. A study was performed by Schneiderman in 1999 summarizing these similar fail factors as transitional issues and design failure.

In 1999, Schneiderman described most Balance Scorecard fail due to factors such as
  i)   incorrectly identified independent variables (ie., non-financial measures) as primary drivers required by stakeholders
  ii)   the key performance indicators are not properly defined
  iii) the target goals set are negotiated and not based on the stakeholders requirement and systems capabilities
  iv)   not breaking down goals to low management who are responsible for achievement
  v)   rely on trial and error, experimental process which is lacking on scientific approach   and
  vi)   inability to link and quantify the independent variables (non-financial measures) to dependent variables (financial measures).

      Based on the many studies of Balance Scorecard in many large organizations and the experience in implementing Balance Scorecard, Kaplan and Norton (1992, 1996, 2001) identified two implementation factors in these large organizations. They are design and process factors. These factors inhibit the implementation of Balance Scorecard. Bourne et al., (2000) confirmed that performances measures are required to be aligned continuously in specific process and the process's design has to be spilt into phases to enable regular review and easy aligning to goals.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

324

Organization readiness

Organization readiness refers to the organization's internal ability to accept a new system. They include operations, systems and processes within the organization that may affect the implementation of Balance Scorecard. For example, capabilities of systems (Bourne et al., 2000 and Gabris, 1986), resources availability (Greiner, 1996), adoption of information technology (Kennerley & Neely, 2002; Murby & Gould, 2005), skills and training, communication (Kaplan & Norton, 2001), level of commitment from top management and organization culture (Scott, 1995; Pettigrew & Whipp, 1991 and Tichy, 1983) are referred to as organizational readiness. Because Balance Scorecard is a long-term continuous iterative process in strategic planning for top management, organization requires a stable financial position to succeed (Greiner, 1996). If an organization is not ready for full implementation of Balance Scorecard, (Waggoner *et al.*, 1999), and the urgency is not throughout the organization, the Balance Scorecard implementation will not succeed (Kotter, 1996).

Personal Factors

The three personal factors include:

Motivation

The implementation of Balance Scorecard has a cascading motivation effect from the top to the bottom of the organization as higher management engrain the strategic goal down to the low management to execute the actions (Inamdar & Kaplan, 2002; Molleman, (n.d.). With this, each individual needs to achieve targets that render the achievement of one individual in the lower hierarchy to another individual in the higher hierarchy. As such, the implementation of Balance Scorecard is seen as successful if the employees are fully involved (Norreklit, 2003). Emmanuel et al., (1990) viewed that the involvement of individuals are affected by motivation. Since Norreklit (2000) study highlighted that employees need to feel control over their work, motivation is essential in the Balance Scorecard system. Employees should believe that their performances are linked to the appraisal and rewards systems in the organization. Then, they will weigh the cost and benefits to adopt the Balance Scorecard before committing to their work. Nair (2009) agreed that organizations need to give attention to employees as they may distort the Balance Scorecard process. Lacking to motivate employees will inevitably cause potential negative consequences in the implementation of Balance Scorecard.

Conscientiousness

When implementing Balance Scorecard, it takes to translates strategy to operational activities, aligning the organization to the strategy and makes that strategy everyone's everyday job (Upadhyay & Palo, 2013). In pursuit of the strategic objectives, individual personalities and leadership values are observed to have an impact on the success of the organization's performance. Therefore, values can be considered as one of the factors for organization to perform (Peters & Waterman, 1983). The fact that it is a long, continual process, this task must be fully supported by senior management and the executive leadership is absolutely necessary in the implementation (Kaplan & Norton, 2001). Conscientiousness refers to the degree to which a person is responsible, dependable, persistent and achievement–centered. This type of person is also known for being efficient, organized, neat and systematic. John and Srivastava (1999) defined conscientiousness as a socially assessed impulse control that facilitates goal-and task-oriented behaviour. The typical traits of conscientiousness are thinking before acting, delaying gratification, following norms and rules, planning and organizing and prioritizing tasks (John & Srivastava, 1999).

An online magazine, Inc.com success story by Arthur Lubow (March, 2009) reaffirmed that a person with conscientiousness and perseverance has a high chance to be successful in a task undertaken. In Barrick and Mount (1991), Salgado (1997) and Barrick et al., (2001) studies, conscientiousness was found to be a strong predictor for occupational success in many different professions such as professionals, managers, trainers, sales personnel and educators and many success performance measurements alike training and quality adherence. Conscientiousness is also the most consistent predictor for achieving targets and performance. This assertion has been supported by Barrick and Mount (1991). Subsequent research by the same researchers, Barrick and Mount in 1993 justified the performance of managers and teams in tasks tend to be positively related to person with high conscientiousness.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

325

Extraversion

When implementing Balance Scorecard, the communication of the strategy is generally from high hierarchy to lower hierarchy (Beer & Eisenhart, 2000).This infers that managers advocate the direction but feedbacks are from the lower hierarchy to high hierarchy. Understanding this direction helps managers to learn and to resolve different perspective and confusion about the strategy. Therefore, employees, especially those having high autonomy should have certain personality traits to deal this strenuous task.

Extraversion is defined by John and Srivastava (1999) as a propensity to act energetically within the social and material environment and comprises characteristics like sociability, activity, assertiveness and positive emotionality. Those with high extraversion are also known to be outgoing, talkative and ambitious. Barrick and Mount (1993) has interpreted extraversion persons consisting two components, sociable and full of ambition. As the Balance Scorecard process is a long term on-going process, there will be many cycles of feedback and changes in the implementation to be communicated and solutions to be undertaken. Then managers, through constructive conflicts, will arrive at consensus and create and maintain the context needed to implement the strategy (Eisenhardt et al., 1999).

In the study by Barrick and Mount (1991), it was found that extraversion strongly affects the performance of certain occupation groups such as managers, sales people and those who interact a lot with people. And in some empirical research conducted confirmed extraversion was linked to the performance of managers (Barrick & Mount 1991; Barrick & Mount 1993; Salgado, 1997 and Barrick et al., 2001), specifically in case that a high occupational autonomy is given, a higher extraversion promises better results for managers (Gellately & Irving 2001). Responsible leaders who are extraversion care and dare to correct the situations, develop people and ensure needful objectives, without worrying about the personal consequences (Ketola, 2010). Overall, person with high extraversion is highly regard as he laid a strong relationship and create an amicable working environment that brings out the best from the employees. Thus, they impact the strategy implementation.

Effective Implementation Of Balalce Scorecard

The effectiveness of performance measurement is an issue of importance to organization due to the measures reflects the performance of the organization. Performance measurement should be dynamic so that it remain relevant and continue to reflect the issues important to the business (Lynch & Cross, 1991 and Sandy Qu et al., 2010). Survey data from 1995 to 2000 collected by Frigo and Krumwiede (1999), cited in Kennerley and Neely (2002) highlighted that 40 to 60% of companies changed their performance measurement system. As such, to maintain relevance, Dixon et al., (1990) agreed that there is a need to review and modify the performance measurement system to accommodate the organization's situation change.

The experiment in Nolan-Norton study revealed that Balance Scorecard was presented as a system to solve strategy implementation in 1996 (Sandy Qu et al., 2010). Then, in 2000, it was promoted as a model for complex organization and was made the model everyone's everyday job. Four years later, Balance Scorecard was a way of managing new economy of organizations with a preponderance of intangible assets (Sandy Qu et al., 2010).

But, the problem faced by the organizations was how to measure the multiple dimensions' effectiveness of the organization performance (Sandy Qu et al., 2010). Balance Scorecard effectiveness can be measured by customizing the system to reflect and accommodate the specifics of the local (Sandy Qu et al., 2010). Customization must have attempted to deliver specific solutions after consideration of requirements and particularities of the local organization.

In Kaplan and Norton (1992), Balance Scorecard was described as a management tool that translates the business vision and strategy into a set of performance measures, financial and non-financial. These measures using the concept developed by Michael Porter which formulate competitive strategy based on the competitive forces in the industry in which the organization is competing, help to achieve the vision of the organization (Kaplan & Norton, 1996). In Rompho (2011) study, the survey results confirmed mission and strategy are the main issues that need to be clearly communicated to all

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

326

employees. The management needs to explain how and why the mission is developed so that the employees would understand how and what they can do to support the organization's goals (Kaplan & Norton, 1992, 2001).

As a conclusion, BSC effectiveness is closely related to the organizational factors and personal behaviour factors in the change management process. It is a continuous strategic learning system in which the hypothesis embedded in the business units' strategy are tested, validated and modified.

Theoretical Foundation

When organization implements change system, the management will face untoward attitude from people that resist the implementation process (Waddell & Sohal, 1998 and Hoffman, 2009). Therefore, the challenge is not only to get the systems, process and structures right (Jeff Kramer & Jeff Magee, 1990), but also to help and support the people in the organization. To effectively help these people through any change, Fisher (n.d., and 2012) personal transition curve denote that the organization must understand the meaning and impact will be for them. In today's continuous changing in business environment where it leads to great deal of uncertainties and strain among employees, the change and transitions that the employees go through can be intensely traumatic and may involve loss of power, prestige and even employment.

As change impact people regardless of anything else changed, it is always a person who must deal with that change (Fisher, n.d. and 2005). Any change, no matter how small, has the potential to have a major impact on an individual, their self-view and subsequent performance. Change is situational, be it new site, new boss, new team, new policy and transition is the psychological process people go through to come to terms with the new situation (Alison & Terry, 1995). William Bridges (n.d.) defined transition as the mental and emotional transformation that people go through as they relinquish old arrangements and embrace new ones. It is a psychological process through which individuals and their team gradually reorganize themselves so they can function and find meaning in a changed environment.

The Change Curve is a theory applied in change management. It is a powerful tool used to understand the stages of personal transition and organizational change. It helps managers to understand how people will react to change so that the management and individuals can make their own personal transitions for the change by getting help and support that they need (Alison &Terry,1995). The Change Curve theory is based on a model originally developed by Elizabeth Kubler-Ross in the 1960s to explain the grieving process through 5 stages. They are denial, anger, bargaining, depression and acceptance. Initially, the theory of Change Curve was widely used to help people to cope with any dramatic changing situation or upheaval.

By the 1980s, the Change Curve theory has become a common fixture used by those managing change in an organization. The original 5 stages which have adapted over the years with consistent in their use have 3 distinct stages i) shock and denial ii) anger and depression iii) acceptance and integration. The time taken by individuals in each stage will have an impact on the effectiveness of success factors in implementation of Balance Scorecard.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

327
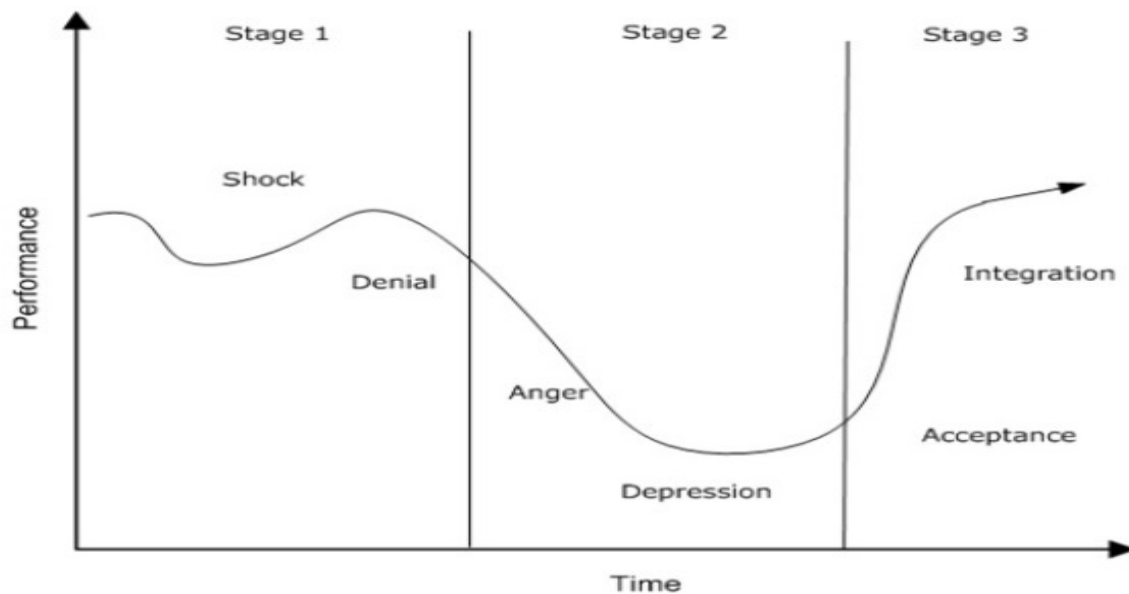
The Change Curve

Figure 1: The Change Curve
(Source : The Change Curve (n.d.) by Elisabeth Kubler- Ross)

However, it must be known that an individual in an organization operates within a multitude of environments (see Figure 2) and shall be influenced not only by his personal factors but the organizational factors. Both factors are influenced by external environment, all of whom have an agenda, wants and needs of their own (Fisher, n.d.) Therefore, any change to the individual and their perception, and resultant actions, will send ripples across many boundaries and set up many change waves within the organization, like ripples in a pond. As such, the success factors in implementation of Balance Scorecard to an extent depend on the initiative of the individuals to accept change or not to accept change.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

328
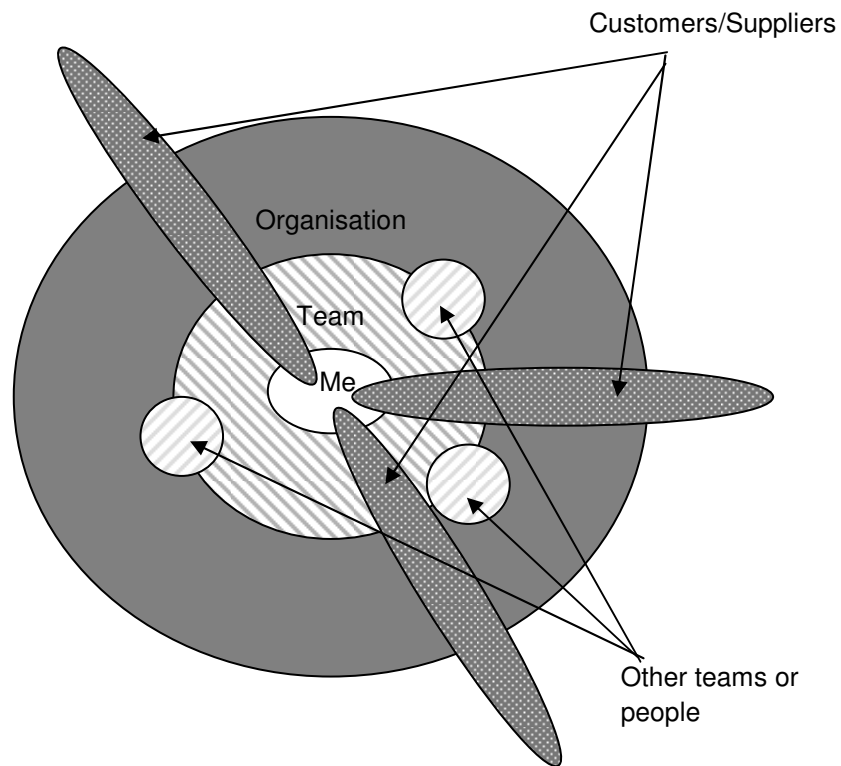
Figure 2: The Individuals within their work space
(Source : Fisher, J.M. (n.d.). Change happens to people)

This study proposes to adopt the Change Curve Model as its theoretical support to test the hypotheses.

Research Model

Above discussions would lead to the following research model.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

329
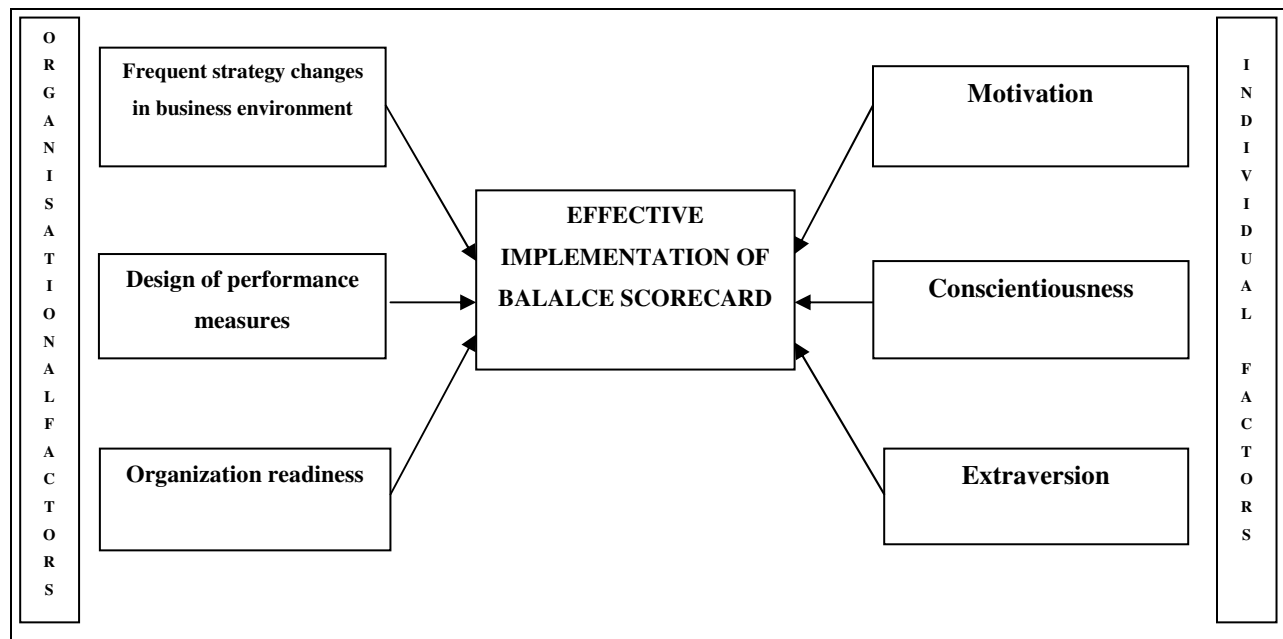
Figure 3: Research Model

(Developed for this research)

Conclusion

The above model will be tested with the data to be collected through a five point likert scale questionnaire from the top hundred multinational and domestic companies in Malaysia and the results will be published in the next paper. Thus this theoretical study has helped to frame a research model for the successful implementation of the balance scorecard in big companies.

References

Alison Young and Terry Lockhart (1995, March). *A cycle of change: the transition curve.* Cranfield School of Management. Retrieved August 2, 2014 from http://www.ucd.ie/t4cms/Transition%20Curve%20Cranfield%20Article.pdf

Arthur Lubow (March, 2009). It's Going to Be Big. *Inc.* pp. 52-57.

Barrick, M. R. and Mount, M. K. (1991): The big five dimensions and job performance: A meta-analysis. *Personnel Psychology, Vol. 44, pp. 1-26.*

Barrick, M. R. and Mount, M. K. (1993): Autonomy as a Moderator of the Relationships Between the Big Five Personality Dimensions and Job Performance. *Journal of Applied Psychology, Vol. 78 (No. 1), pp. 111-118.*

Barrick, M. R., Mount, M. K. and Judge, T. A. (2001): Personality and Performance at the Beginning of the New Millennium: What Do We Know and Where Do We Go Next? *Personality and Performance, Vol. 9 (No. 1/2), pp. 9-30.*

Beer, M and Eisenhart, R. (2000). The six silent killer of strategy implementation and learning, *Sloan Management Review*, 41(4), pp. 29-40.

Bourne, M., Mills, J., Wilcox, M., Neely, A. and Platts, K. (2000). *Designing, implementing and updating performance measurement systems.* International Journal of Operations & Production Management, Vol. 20 No. 7, pp. 754-71.

Cross K F and Lynch R L, (1989), "The SMART way to define and sustain success", *National Productivity Review*, vol. 9, no 1, pp. 23-33.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

330

Dixon, J.R., Nanni, A.J., Vollmann, T.E. (1990). The New Performance challenge – Measuring operations for world-class competition, Dow Jones-Irwin, Homewood,IL.

Eisenhardt, K., Kahwayjay, K.M., Bourgeios, L.J. (1999). How management team have a goodfight, *Harvard Business Review*, 75(4), pp. 77-85.

Elisabeth Kubler-Ross (1969). *On Death and Dying*.

Emmanuel, C., Otley, D. and Merchant, K. (1990). *Accounting for management control*, Chapman and Hall, London.

Fernandes, K. J., Rajab, V., and Whalley, A. (2006). Lessons from implementing the balanced scorecard in a small and medium size manufacturing organization. *Technovation*, 26(5-6), pp. 623-634.

Fisher, J.M. (2012). *The Process of Personal Transition.* Retrieved August 2, 2014 from http://www.csu.edu.au/__data/assets/pdf_file/0006/949533/fisher-transition-curve-2012.pdf

Fisher, J.M. (n.d.). The Process of Transition. Retrieved August 2, 2014 from http://www.c2d.co.uk/USERIMAGES/The%20Process%20of%20Transition%20-%20paper.pdf

Fisher, J. M. (2005). A Time for change. Human Resource Development International, Vol.8, 2, pp. 257 – 264.

Gabris, G.T. (1986), ``Recognizing management techniques dysfunctions: how management tools often create more problems than they solve'', in Halachmi, A. and Holzer, M. (Eds), *Competent Government: Theory and Practice*, Chatelaine Press,Burk, VA, pp. 3-19.

Gellatly, I. R. and Irving, P. G. (2001): Personality, autonomy, and contextual performance of managers. *Human Performance*, Vol. 14, pp. 229–243.

Greiner, J. (1996), ``Positioning performance measurement for the twenty-first century'', in Halachmi, A. and Bouckaert, G. (Eds), *Organizational Performance and Measurement in the Public Sector*, QuorumBooks, London, pp. 11-50.

Hoffman, J. A. (2009). Kalamunda: change and resistance. Department of Social Sciences, Faculty of Humanities. Bentley: Curtin University. Doctor of Philosophy.

Inamdar, N. and Kaplan, R.S. (2002) Applying the balanced scorecard in healthcare provider organizations, *Journal of Healthcare Management*, 47, pp. 179-195.

Jeff Kramer and Jeff Magee (1990). *The evolving philosophers problem : Dynamic Change Management.* IEEE transactions on Software Engineering, November, Vol. 16, no. 11, pp. 1293-1306.

John, O. P., and Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research,* pp. 102–138. New York: Guilford Press.

Kaplan, R.S. and Norton, D.P. (1992). *The balanced scorecard: measures that drive Performance.* Harvard Business Review, 70 (January/February), pp. 71-79.

Kaplan, R.S. and Norton, D.P. (1996). *Using the balanced scorecard as a strategic Management system.* Harvard Business Review, 74 (January/February), pp. 75-85.

Kaplan, RS and Norton, DP, (2001). *The strategy-focused organisation,* Harvard Business School Press, Boston, Massachusetts.

Keegan, D.P., Eileer, R.G. and Jones, C.R. (1989). Are your perfomrnace measures obsolete? Management Accounting , June, 1989, pp. 45-50.

Kennerley, M and Neely, A (2002). *A framework of the factors affecting the evolution of performance measurement systems.* International Journal of Operations and Production Management, Vol 22, no.11. Retrieved November 23, 2013 from http://www.som.cranfield.ac.uk/som/dinamic-content/research/cbp/IJOPM_V22_N11.pdf

Kennerley, M and Neely, A (2003). *Measuring performance in a changing business environment.* International Journal of Operations and Production Management, Vol 23, no.2, pp. 213-229.

Ketola, T. (2010). Responsible leadership: Building blocks of individual, organizational and societal behaviour. *Corporate Social Responsibility and Environmental Management, vol.17(3), pp.173-184.*

Kotter, J.P. (1996), *Leading Change*, Harvard Business School Press, Boston, MA.

Lynch, R.L. and Cross, K.F, (1991). Measure up-The essential guide to measuring business performance. Mandarin, London.

Molleman, B. (n.d.). *The challenge of implementing the Balance Scorecard.* Retrieved November 26, 2013 from http://slc.co.ke/sites/default/files/the-challenge-of-implementing-the-balanced-scorecard.pdf

Murby, L. and Gould, S. (2005). *Effective Performance Management with Balance Scorecard.* Chartered Institute of Management Accountants, Technical Report, INSEAD.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

331

Nair, M. (2009) Overcoming the 9 deadly sins of balanced scorecards, *The Journal of Corporate Accounting & Finance*, *20*(6), pp. 83-90.

Nørreklit, H. (2000), The balance on the balanced scorecard a critical analysis of some of its assumptions, *Management Accounting Research*, 11, pp. 65-88.

Nørreklit, H. (2003), The balanced scorecard: what is the score? A rhetorical analysis of the balanced scorecard, *Accounting, Organizations and Society*, 28, pp. 591-619.

Peters, J.T., and Waterman, R.H. (1983). *In search of excellence*. New York: Harper and Row.

Pettigrew, A. and Whipp, R. (1991), *Managing Change for Competitive Success*, Blackwell, Oxford.

Rompho, N. (2011). *Why the Balances Scorecard Fail in SMEs: A case study.* International Journal of Business and Management, November, Vol.6, No.11, pp. 39-46.

Salgado, J.F. (1997): The five factor model of personality and job performance in the European Community. *Journal of Applied Psychology*, Vol. 82, pp. 30-43.

Sandy Q,Qu., David J. Cooper and Mahmoud Ezzamel (2010). Creating and popularising a global management accounting idea, December, 2010, Vol.6, Issue 13. CIMA Research Executive Summary Series. ISSN 1744-702X.

Schneiderman, A.M.(1999). *Why Balance Scorecard Fail?* Journal of Strategic Performance Measurement, Special edition, January, 6-11.

Scott, W.R. (1995), *Institutions and Organizations: Theory and Research*, Sage Publications, London.

Tichy, N.M. (1983). *Managing Strategic Change: Technical, Political, and Cultural Dynamics*, John Wiley & Sons,New York,NY.

Upadhyay, A.Y.A, and Palo, S. (2013). Engaging employees through balanced scorecard implementation. *Strategic HR Review*, *12*(6), pp. 302–307.

Waddell, D. J. and Sohal A. (1998). Resistance: a constructive tool for change. Working paper series. Department of Management, Faculty of Business and Economics. Victoria, Monash University.

Waggoner, D.B., Neely, A.D. and Kennerley, M.P. (1999). The forces that shape organisational performance measurement systems: an interdisciplinary review", *International Journal of Production Economics*, Vol. 60-61, pp. 53-60.

William Bridges (n.d.). *Self-directed learning: managing yourself and your working relationships.* Learning and Development Centre, The University of Warwick, www.warwick.ac.uk/go/ldc Retrieved August 2, 2014 from http://www2.warwick.ac.uk/services/ldc/leadership/change/sdl_managing_change.pdf

Yin, R.K. (2003) *Case study research: design and methods, 3e,* SAGE.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

332

Does Quality of Non-Financial Information Disclosure Influence Firms' Profitability in Malaysia?

Zam Zuriyati Mohamad[a], Nur Diyana Ismail[b], Hatijah Salleh[c], Ibrahim Tamby Chek[d]

[a]*Universiti Tunku Abdul Rahman, Malaysia, zuriyati@utar.edu.my*
[b]*Universiti Tunku Abdul Rahman, Malaysia, diyana@utar.edu.my*
[c] *Universiti Tunku Abdul Rahman, Malaysia, hatijah@utar.edu.my*
[d]*Universiti Pendidikan Sultan Idris, Malaysia, ibrahim@fpe.upsi.edu.my*

Abstract

The purpose of this study is to determine the level of quality of Non-Financial Information disclosure in Malaysia. Non-Financial Information disclosure in this study refers to Corporate Social Responsibility disclosure, Intellectual Capital disclosure, Risk Management disclosure and Corporate Governance disclosure. This study also aims to examine the influence of quality of Non-Financial Information on firm's profitability. It further identifies which Non Financial Information disclosure has the highest influences on firm's profitability. Data was collected from 100 selected annual reports of Public Listed Companies using random sampling technique and was analysed using Multiple Linear Regression. Two ratios have been used to measure the firms' profitability. This study reveals a mixed finding on the influence of Non-Financial and firms' profitability. The results show that Corporate Governance disclosure has the highest influence on firm's profitability. This study provides useful insight to the authorities on the level of quality of Non-Financial Information and this information enables them to focus on areas that need improvement. This study also gives a better understanding to the users of annual reports on the influence of Non-Financial Information disclosure on firm's profitability.

Keywords: Non-Financial Information, Corporate Governance Disclosure, Corporate Social Responsibility Disclosure, Risk Management Disclosure, Intellectual Capital Disclosure, Firm's Profitability

INTRODUCTION

Information plays an important role in corporate world as it can improve the companies' if they disclose their information to the public (Aburaya, Rania, & Kamal, 2012) and this information shall include financial and non-financial information (NFI). However, recent decades has witnessed the rise attention on NFI due to inadequacy of traditional financial information reporting to fulfill the need in assessing the organization value. Companies have moved from passive to active information disclosure, from strict to know compliance disclosure to right to know complete disclosure and they are aspiring to link corporate strategy with one comprehensive stream of nonfinancial and financial data (Maxwell, Smith, & Brewster, 2010). Qualitative information in the companies' reports is referred to as NFI disclosure and this shall exclude four financial statements and related footnotes (Robb, Single, & Zarzeski, 2001). For the purpose of this research, NFI refers to the information on Corporate Social Responsibility (CSR), Intellectual Capital (IC), Risk Management (RM) and Corporate Governance (CG).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

333

Not much research had been conducted previously to analyze the important of NFI as an investor decision-making despite advocates arguments on that area (Lori Holder-Webb, Jeffrey Cohen, Leda Nath, Belinda Hoff and David Wood). During the past two decades, there have been many ideas to improve business reporting, and nearly all of them focus on the importance of companies providing more NFI (Eccles, Robert, Serafein, & Consulting, 2011). The objectives are to inspire transparent reporting standard, promote corporate accountability and build up good governance. However, current practice of the NFI disclosure has been badly criticized as they failed to fulfill the expectation from stakeholders (Ping, 2012).

Previous literature has researched and discussed the information disclosure on CSR, IC, RM and CG independently (Jamali, Safieddine, & Rabbath, (2008); (Yi & Davey, 2010); Ismail & Rahman, 2013 and Mizuno (2010). Owing to the investors' needs, those areas should be combined to develop a model on quality of NFI as there is a gap of knowledge on the quality of NFI towards the firms' profitability. Furthermore, there is no widely acceptance guidelines to promote the quality of NFI around the world and the current status is highly variable (Yi & Davey, 2010).

In this regards, this study intends to determine the quality level of NFI disclosure in Malaysia and to examine on how NFI will influence firm's profitability. In addition, this study also aims to identify which category of NFI disclosure has the highest influences on the firm's profitability.

LITERATURE REVIEW

Corporate Social Responsibility Information

In recent years, companies were paying more attention to demonstrate their commitment to CSR by including it in the information provided to their stakeholders (Kotonen, 2009). Although some of the researchers name this disclosure as CSR reporting (Day & Woodward, 2009; and Khan, 2010), corporate social disclosure Menassa (2010), social and environment reporting (Guthrie, Cuganesan, & Ward, 2006) and corporate social reporting (Amran & Siti-Nabiha, 2009), the fundamental was referring to the same ground which was to report the companies' CSR activities to the public. Researchers around the world studied their countries' CSR disclosure level to indicate the awareness of CSR practice, for example, Pratten and Mashat (2009) examined the CSR disclosure in Libya; Popa, Blidi, and Bogdan (2009) examined CSR disclosure in Romania; and Shil and Paramanik (2009) examined CSR disclosure in Bangladesh. Evidences exist that investors sees social and environmental information as an important tool in making investment decisions and hence demand adequate disclosure of such information (Yekinni, 2008). Previous researchers found positive correlation between CSR disclosure towards financial performance such as Wibowo (2012) and Khaveh, Nikhashemi, Yousefi, and Haque (2012).

Intellectual Capital Information

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

334

There was growing agreement that inadequacy of information provided in the previous traditional financial report was insufficient to fulfill the stakeholder's need and leads the company to be at the risk of insider trading thus affecting the investor's confidence; consequent of which firms subsequently disclose their information on IC (Rahim, Atan, & Amrizah, 2011). Rapid emergence of information and communication technologies increased the momentum of IC in 1990s (Damarchi, Amiri, & Rezvani, 2012). The IC information disclosure reflects the company performance whereby it encourages users' better decision making and evaluation on the company for preceding periods as well as reducing ambiguity (Azman & Kamaluddin, 2009) as economic value derives from production of goods and creation of IC. Previous studies concluded that IC information was able to reduce the risk of a potential investor in making a decision towards a firm's investment (Halim, 2013; An, Davey, & Eggleton, 2011 & Abeysekera, 2010). Empirical research in "non traditional" industries also consistently found that IC information adds value to financial information (Vafaei, Taylor, & Ahmed, 2011). Research by Deep and Narwal, (2014) found that IC disclosure was significantly associated with firm's performance.

Risk Management Information

Debate on the importance of risk reporting commenced as early as 1998 when the Institute of Chartered Accountants in England and Wales (ICAEW) published a discussion paper entitled "Financial Reporting of Risk – Proposals for a statement of Business Risk. (Amran, Abdul Manaf, & Che Haat, 2009). Previous study had investigated the level of risk management disclosure in Portuguese (Oliveira, Rodrigues, & Craig, 2011), Malaysia (Amran, Abdul Manaf, & Che Haat, 2009;Ismail & Rahman, 2013), Dutch and Germanic countries (Deumes & Knechel, 2008). Generally, those studies found that risk management disclosure level are too brief, vague and not sufficient for the stakeholders to make investment decision. This inadequacy problem in RM information disclosure had been recognized. There were studies that were conducted to investigate the incentives for voluntary disclosure and disclosure quality (Htay, Rashid, Adnan, & Meera, 2012). However, few studies were conducted in investigating the the quality of risk management disclosure (Oliveira et al., 2011). Study by Ismail and Rahman, (2013) concluded that the overall score for RM disclosure among public listed companies in Malaysia is 53%, demonstrating that there are rooms for improvement on the level of risk disclosure.

Corporate Governance Information

Mccahery, Sautner, and Starks, (2011) stated that CG is important for the institutional investors' investment decisions. Although past studies showed that there are links between CG and investment decisions, majority of them are only focus the studies on institutional investors such as Mizuno, (2010)'s study in Japan, and Gill, Sharma, Mand, & Mathur, (2012)'s study in small business in India. Few researches have been conducted to determine the relationship between quality of CG disclosure and financial performance. Mixed results have been found from the previous research. Recent study (Abd. Hamid, Abdul Aziz, Dora, & Said, 2012) showed that the quality of CG did not correlate with financial performance. The financial performance in their study was measure by ROA. In contrast, another study

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

335

on CG disclosure and financial performance was conducted by Rouf (2012) on non-financial listed companies in Bangladesh. A total of 94 annual reports of selected listed companies was analysed using Ordinary Least Square method of estimation. The results indicated that the quality of CG disclosure was positively correlated with the financial performances (Profitability) measure by ROA.

Theoretical Framework

This study employs legitimacy theory, stakeholder theory and agency theory as a theoretical framework. The legitimacy theory presents two basic ideas whereby companies need to legitimize their activities and this legitimacy process provide benefit to the company (Hassan & Marston, 2010). Disclosing quality NFI is a way for company to legitimize their activities. The benefit from the legitimacy process is represented by firm's profitability. Legitimacy theory presumed that a corporation will act to ensure that its actions and activities were congruent with whom it believed has the necessary attributes to affect the corporation's image and, ultimately, existence (O'Donavan, 2000).

Another theory that supports the development of this study is stakeholder theory. Stakeholder theory has been pioneered by Ullman (1985) who introduced three models: pressure from stakeholders, the strategy of corporate response, and the level of economic performance. The first levels explains the company's reaction towards the demand from a broader base of stakeholder (Husillos & Alvarez, 2008; Sweeney & Coughlan (2008); Dincer (2011); (Van der Laan, 2009). The second level was consistent on the corporate response, which was producing quality NFI (Kent & Chan, 2009). The third levels referred to the economic performance that will determine the financial strength and weaknesses of the corporations (Elijido-ten, 2004; Van der Laan, 2009) and it was seen that higher level of profitability will be achieved through disclosing of NFI (Jamali et al., 2008).

Agency theory becomes a popular rationale for NFI disclosure since its emergence as an explanatory model for corporate reporting (Cheung & Mak, 2010). It is developed based on Adam Smith's classical school of thought. It viewed the firm as a nexus of contracts between various economic agents who act opportunistically within efficient markets (Reverte, 2008). In this theory the management acted as the agent of the corporation while the shareholders were the owner (principal) of the corporation. Shareholders are always expecting the agents to act in the interest of the principal. Unfortunately, in circumstances the agents may acted in their self-interest and falling short of congruence between the principal and agents. Mulili and Wong (2011) highlighted that there will be a conflict when the managers did not manage the corporations in the best interest of the owners. However, Gray, Owen and Adams (1996) offered the idea that managers used company's information to satisfy or manipulate influential stakeholders in order to gain their support which was required for survival. Mechanisms to observe managers, lessen information asymmetry and maximize shareholder's wealth are necessary in agency theory (Cormier, Ledoux, & Magnan, 2011). In this study maximization of shareholders' explained the firms' profitability.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

336

METHODOLOGY

Secondary data collection has been employed in this study whereby the unit of analysis is the annual report of the public listed company on the Bursa Malaysia. A total of 100 companies' annual report for the financial year ended 2012 were selected randomly. Financial year ended 2012 was selected as this is the latest annual report available in Bursa Malaysia website as at the date this study was conducted. Items that extracted from the annual report are CSR disclosure, IC disclosure, RM disclosure, CG disclosure, net profit before interest and tax, total assets, and total equity. The 4 categories of disclosure are presented in qualitative manner for example sentences and pictures. Thus, content analysis procedure will be used to convert the qualitative data to quantitative data. On the other hand, the information for net profit before interest and tax, total asset, and total equity is quantitative data and no conversion is required..

Measurement for Corporate Social Responsibility Disclosure

A company may disclose in its annual reports, in particular in the disclosure index, a recognized complete list of items relating to corporate social responsibility for the determination of the quality of CSR disclosure. This selection was adopted from the study conducted by Ramly (2012) and Mohamad et al. (2010) which is based from Bursa Malaysia Listing Requirement and Malaysian Code of Corporate Governance. Items selected to be included in the list is relevant with the Malaysian perspective and has been classified into four indicators of CSRD,that are: (1) employee relations; (2) environment; (3) community involvement; and (4) product. Every indicator has sub-item disclosures that are adjusted based on whether the items are disclosed. Furthermore,(Al-Tuwaijri, Christensen, & Hughes, 2004) proposed that the process for measurement the quality of CSR disclosure can be achieved by using quantitative disclosure measures with denoted weights for different disclosure items. These are based on the perceived importance of each item to various user categories, which also marks the greatest weight of '3' for quantitative disclosures related to the four CSR indicators or categories. Marking the next highest weight of '2' for non-quantitative but specific information related to these indicators. Lastly, common qualitative disclosures receive the lowest weight of '1'. Firms that do not disclose any information for the given indicators receive a zero score. The highest score is 60 (3 X 20items). The CSR score for the company is derived by calculating the ratio of actual sum of scores awarded to a company to the maximum score (60). This score was converted into a percentage form

Measurement for Intellectual Capital Disclosure

IC disclosure was measure using IC disclosure index adopted from Rahim et al., (2011). In their study they have listed 24 intellectual capital attributes across three categories: internal capital, external capital and human capital. In the current study human capital aspect has been withdrew to avoid overlapping as it already included in CSR index. Weighted disclosure index has been performed as per appendix B, whereby a score of three (3) was assigned if the disclosure item was in quantitative terms; a score of two (2) was assigned if the disclosure is non quantitative but specific; a score of one (1) was assigned if

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

337

common disclosure was provided and a score of zero (0) for non-disclosure of IC information. The highest score is 27 (3 x 9 items). The IC score for the company is derived by calculating the ratio of actual sum of scores awarded to a company to the maximum score (27). This score was converted into a percentage form

Measurement for Risk Management Disclosure

Index disclosure for RM was developed based on the study conducted by (Nu et al., 2011; Rahman, Kighir, Oyefeso, & Salam, 2013). 33 items was constructed in this index. A dichotomous procedure was applied in scoring the items whereby Specifically, a "1-point" score is awarded for each item that disclose in the annual report and otherwise, a "0-point". Then, the sum of scores of all items is computed. The overall RM score is derived by calculating the ratio of actual sum of scores awarded to a firm to the maximum score (33). This score is converted into a percentage form.

Measurement for Corporate Governance Disclosure

The measurement for the quality of CG disclosure for this study was based on the CG index adopted from the research conducted by Wan Mohamad and Sulong (2010). According to Wan Mohamad and Sulong (2010) this measurement method has been used extensively by the previous researchers (Chen & Jaggi, 2000; Eng & Mak, 2003; Gul & Leung, 2004; Haniffa & Cooke, 2005; Baraco, Hancock, & Izan, 2006). There are 40 disclosure items. A dichotomous procedure was applied in scoring the items of the CG index. Specifically, a "1-point" score is awarded for each item that is consistent with good corporate governance practice as indicated on the CG Index and otherwise, a "0-point" score was given. Finally, all the disclosure scores are added to get a total score for each company whereby the maximum disclosure score is 40. Then, the sum of scores of all items is computed. The overall CG score is derived by calculating the ratio of actual sum of scores awarded to a firm to the maximum score (40). This score was converted into a percentage form. The scoring approach employed in this study is consistent with the method used in prior studies (Brown & Caylor, 2006; Black, Jang, & Kim, 2012; Beiner, Drobetz, Schmid, & Zimmerman, 2004; Byun, Kwak, & Hwang, 2008; Chen et al., 2009).

Measurement for Firm's Profitability

A commonly employed measure of profitability is return on assets (ROA) by Brammer & Pavelin, 2008; Cormier, Ledoux, Magnan, & Aerts, 2010; Denis Cormier et al., 2011 and Lim, Matolcsy, & Chow, 2004) and return on equity (ROE) by Ajanthan (2013). Accordingly, profitability in the current study was measured using ROA ratio and ROE.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

338

FINDINGS

Level of Quality of Non-Financial Information Disclosure Quality

As shown in table 1, quality of CG information disclosure has the highest mean (0.8309), followed with IC information disclosure (0.5469), RM information disclosure (0.3465) and the lowest mean was on CSR information disclosure (0.2428).

Table 1: Descriptive Statistics of Quality on NFI Disclosure

	N	Minimum	Maximum	Mean	Std. Deviation
CSR	100	.00	.85	.2428	.18497
RM	100	.03	.74	.3465	.13586
IC	100	.11	.93	.5469	.16967
CG	100	.70	.98	.8309	.06090

Influence of NFI Disclosure on Firms' Profitability

The result on the influence of NFI disclosure on firms' profitability was presented in Table 2 and Table 3 using ROE and ROA as the measurement of firms' profitability respectively.

Table 2: Regression Analysis on NFI Disclosure and Firms' Profitability (ROE)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.154	.312		-3.701	.000
CSR	.739	.132	.476	5.599	.000
RM	-.326	.180	-.154	-1.811	.073
IC	.297	.149	.176	1.997	.049
CG	1.317	.391	.280	3.368	.001
R^2	.404				
F	16.111				
Sig	.000				

The regression result in Table 2 shows that CSR, IC and CG disclosure have significantly influence the firms' profitability with R^2 of 0.404. This indicated that 40.4% of the variation in firms' profitability can be explained by the quality of NFI.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

339

Table 3: Regression Analysis on NFI Disclosure and Firms' Profitability (ROA)

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	-.914	.216		-4.224	.000
CSR	.188	.092	.194	2.050	.043
RM	-.087	.125	-.066	-.695	.489
IC	.164	.103	.156	1.593	.114
CG	1.109	.272	.378	4.084	.000
R^2	.261				
F	8.380				
Sig	.000				

The regression result in Table 3 shows that only CSR and CG disclosure have significantly influence the firms' profitability with R^2 of 0.261. This indicated that 26.1% of the variation in firms' profitability can be explained by the quality of NFI.

CONCLUSION

This study concluded that among the four categories of NFI that has been examined, CG disclosure has the highest level of quality. It is due to the adequate guideline for disclosing the CG information by Bursa Malaysia in their Listing Requirement. A recognition should be given to Malaysian Code of Corporate Governance for their effort in the development of CG issues in Malaysia. In addition, this study also found that quality of CG and CSR information significantly influenced the firms' profitability using both ROA and ROE measurement. This is consistent with the previous study by Wibowo (2012) and Rouf (2012). Both regression results show that quality of CG information has the highest influenced on firms' profitability. Quality of CG information will increase transparency and able to attract investors' confidence. On the other hand, quality of CSR disclosure able to influence the firms' profitability through customer loyalty and develop good corporate image as public are more concern on environmental issue, marketplace and community. Quality of IC disclosure was significantly influence the firms' profitability using ROE measurement but was insignificant using ROA measurement. This suggests that disclosing quality IC information able to generate higher return on equity as IC is crucial in competitive advantage and value creation.

Finally, this study provides a useful insight to the authorities on the level of quality of NFI and this information enables them to focus on areas that need improvement. This study also gives a better understanding to the users of annual reports on the influence of NFI disclosure on firm's profitability

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

340

References

Abd. Hamid, A., Abdul Aziz, R., Dora, D., & Said, J. (2012). Corporate governance reporting of top 250 companies: Recent evidence from emerging economic. *British Journal of Economics, Finance and Management Sciences*, *4*(March), 95–112.

Abeysekera, I. (2010). The influence of board size on intellectual capital disclosure by Kenyan listed firms. *Journal of Intellectual Capital*, *11*(4), 504–518. doi:10.1108/14691931011085650

Aburaya, Rania, & Kamal. (2012). *The Relationship Between Corporate Governance And Environmental Disclosure: UK Evidence*. Durham University.

Ajanthan, A (2013). Impact of Corporate Governance Practices on Firm Capital Structure and Profitability: A Study of Selected Hotels and Restaurants Companies in Sri Lanka *Research Journal of Finance and Accounting, 4(*10), 115-126

Restaurant Companies in Sri Lanka

Al-Tuwaijri, S. a, Christensen, T. E., & Hughes, K. . (2004). The relations among environmental disclosure, environmental performance, and economic performance: a simultaneous equations approach. *Accounting, Organizations and Society*, *29*(5-6), 447–471. doi:10.1016/S0361-3682(03)00032-1

Amran, A., Abdul Manaf, R., & Che Haat, M. H. (2009). Risk reporting: an exploratory study on risk management disclosure in Malaysian annual reports. *Managerial Auditing Journal*, *24*(1), 39–57. doi:10.1108/02686900910919893

Amran, A., & Siti-Nabiha, a. K. (2009). Corporate social reporting in Malaysia: a case of mimicking the West or succumbing to local pressure. *Social Responsibility Journal*, *5*(3), 358–375. doi:10.1108/17471110910977285

An, Y., Davey, H., & Eggleton, I. R. C. (2011). Towards a comprehensive theoretical framework for voluntary IC disclosure. *Journal of Intellectual Capital*, *12*(4), 571–585. doi:10.1108/14691931111181733

Azman, H., & Kamaluddin, A. (2009). Does Disclosure Of Non-Financial Statement Information Reduce Firms ' Propensity To Under-Invest? *Dissertation Presented To The Graduate School Of The University Of Florida*

Baraco, D. G., Hancock, P., & Izan, H. Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An International Review*, *14*(2), 107–125.

Beiner, S., Drobetz, W., Schmid, M. M., & Zimmerman, H. (2004). *An Integrated Framework of Corporate Governance and Firm Valuation*.

Black, B. S., Jang, H., & Kim, W. (2012). Does Corporate Governance Predict Firms ' Market Values ? Evidence from Korea Does Corporate Governance Predict Firms ' Market Values ? Evidence from Korea †. *Journal of Law, Economics & Organization*, *413*(June), 366–413.

Braam, G. (2010). *Board and auditor interlocks and voluntary disclosure in annual reports*.

Brammer, S., & Pavelin, S. (2008). Factors influencing the quality of corporate environmental disclosure. *Business Strategy and the Environment*, *17*(8), 120–136.

Brown, L. D., & Caylor, M. L. (2006). Corporate governance and firm valuation. *Journal of Accounting and Public Policy*, *25*(4), 409–434. doi:10.1016/j.jaccpubpol.2006.05.005

Byun, H.-Y., Kwak, S.-K., & Hwang, L.-S. (2008). The implied cost of equity capital and corporate. *Asia-Pacific Journal of Financial Studies*, *37*(1), 139–184.

Chen, C. J. P., & Jaggi, B. (2000). Association between independent non-executive directors, family control and financial disclosures in Hong Kong. *Journal of Accounting and Public Policy*, *19*(4), 285–310.

Chen, K. C. W., Chen, Z., & Wei, K. C. J. (2009). Legal protection of investors, corporate governance, and the cost of equity capital. *Journal of Corporate Finance*, *15*(3), 273–289. doi:10.1016/j.jcorpfin.2009.01.001

Cheung, P., & Mak, W. (2010). *Responsibility disclosure and financial performance*. Simon Fraser University.

Cormier, D., Ledoux, M., Magnan, M., & Aerts, W. (2010). Corporate governance and information asymmetry between managers and investors. *Corporate Governance,*, *10*(5), 574–589.

Cormier, D., Ledoux, M.-J., & Magnan, M. (2011). The informational contribution of social and environmental disclosures for investors. *Management Decision*, *49*(8), 1276–1304. doi:10.1108/00251741111163124

Damarchi, Q. V., Amiri, F., & Rezvani, A. H. (2012). Disclosure And Reporting Of Intellectual Capital In. *Interdisciplinary Journal Of Contemporary Research In Business*, *3*(9), 155–167.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

341

Day, R., & Woodward, T. (2009). CSR reporting and the UK financial services sector. *Journal of Applied Accounting Research*, *10*(3), 159–175. doi:10.1108/09675420911006398

Deep, R., & Narwal, K. P. (2014). Intellectual Capital and its Association with Financial Performance : A Study of Indian Textile Sector. *International Journal Management Business Research*, *4*(1), 43–54.

Deumes, R., & Knechel, W. R. (2008). Economic Incentives for Voluntary Reporting on Internal Risk Management and Control Systems. *Auditing: A Journal of Practice & Theory*, *27*(1), 35–66. doi:10.2308/aud.2008.27.1.35

Dincer, B. (2011). Do the shareholders really care about Corporate Social Responsibility ?*. *International Journal of Business and Social Science*, *2*(10), 71–76.

Donker, H., & Zahir, S. (2008). Towards an impartial and effective corporate governance rating system. *Corporate Governance*, *8*(1), 83–93. doi:10.1108/14720700810853428

Eccles, Robert, G., Serafein, G., & Consulting, M. K. (2011). Market interest in non financial information. *Journal of Applied Corporate Finance*, *23*(4), 113–128.

Elijido-ten, E. (2004). Determinants of environmental disclosures in a developing country: an application of the stakeholder theory. In *Forth Asia Pacific Interdisciplinary Research in Accounting Conference*.

Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. *Journal of Accounting and Public Policy*, *22*(4), 325–345. doi:10.1016/S0278-4254(03)00037-1

Gill, A., Sharma, S. P., Mand, H. S., & Mathur, N. (2012). The relationship between corporate governance and the investment decision of small business firms in India. *Journal of Finance and Investment Analysis*, *1*(2), 41–59.

Gray, R., Owen, D., & Adams, C. (1996). *Accounting and cccountability*.

Gul, F. a., & Leung, S. (2004). Board leadership, outside directors' expertise and voluntary corporate disclosures. *Journal of Accounting and Public Policy*, *23*(5), 351–379. doi:10.1016/j.jaccpubpol.2004.07.001

Guthrie, J., Cuganesan, S., & Ward, L. (2006). Social and environmental reporting :the Australian food and beverage industry, 1–40.

Halim, H. A. (2013). Intellectual Capital Disclosure Emphasis : An Analysis of Malaysian Annual Reports. In *Proceedings of Global Business and Finance Research Conference*.

Haniffa, R. ., & Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of Accounting and Public Policy*, *24*(5), 391–430.

Hassan, O., & Marston, C. (2010). *Disclosure measurement in the empirical accounting literature : a review article*. West London.

Hossain, M., & Hammami, H. (2009). Voluntary disclosure in the annual reports of an emerging country: The case of Qatar. *Advances in Accounting*, *25*(2), 255–265. doi:10.1016/j.adiac.2009.08.002

Htay, S. N. N., Rashid, H. M. A., Adnan, M. A., & Meera, A. K. M. (2012). Impact of Corporate Governance on Social and Environmental Information Disclosure of Malaysian Listed Banks: Panel Data Analysis. *Asian Journal of Finance & Accounting*, *4*(1), 1–24. doi:10.5296/ajfa.v4i1.810

Husillos, J., & Alvarez, M. (2008). A stakeholder-theory approach to environmental disclosures by small and medium enterprises (smes). *RC-SAR*, *11*(1), 125–156.

Ismail, R., & Rahman, R. A. (2013). Risk management disclosure in Malaysian public listed companies. *Journal of Business Administration and Management Sciences Research*, *2*(7), 172–177.

Jamali, D., Safieddine, A. M., & Rabbath, M. (2008). Corporate governance and corporate social responsibility synergies and interrelationships. *Corporate Governance*, *16*(5), 443–459. doi:10.1111/j.1467-8683.2008.00702.x

Kent, P., & Chan, C. (2009). Application of stakeholder theory to corporate environmental disclosures. *Corporate Ownership and Control*, *71*, 399–414.

Khan, M. H.-U.-Z. (2010). The effect of corporate governance elements on corporate social responsibility (CSR) reporting: Empirical evidence from private commercial banks of Bangladesh. *International Journal of Law and Management*, *52*(2), 82–109. doi:10.1108/17542431011029406

Khaveh, A., Nikhashemi, S. R., Yousefi, A., & Haque, A. (2012). Environmental and social performance disclosure and shareholders' wealth- a perspective from Malaysian companies. *Australian Journal of Business and Mangement Research*, *1*(12), 33–41.

Kotonen, U. (2009). Formal corporate social responsibility reporting in Finnish listed companies. *Journal of Applied Accounting Research*, *10*(3), 176–207. doi:10.1108/09675420911006406

Lim, S., Matolcsy, Z., & Chow, D. (2004). The sssociation between board composition and different types of voluntary disclosure. *European Accounting Review*, *16*(3), 555–583.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

342

Ling, Y. (2012). A Study on the Influence of Intellectual Capital and Intellectual Capital Complementarity on Global Initiatives. *Electronic Journal of Knowledge Management*, *10*(2), 154–162.

Maxwell, J., Smith, D., & Brewster, M. (2010). Finding a sustainable edge: Putting nonfinancial data to work for strategic growth. *Price Waterhouse Coopers*, 1–8.

Mccahery, J. A., Sautner, Z., & Starks, L. T. (2011). Behind the Scenes : The Corporate Governance Preferences of Institutional Investors 1018WB Amsterdam Department of Finance Behind the Scenes : The Corporate Governance Preferences of Institutional Investors Abstract. *SSRN Electronic Journal*. Retrieved from file:///C:/Users/AmiAti/Downloads/SSRN-id1571046.pdf

Menassa, E. (2010). Corporate social responsibility An exploratory study of the quality and extent commercial banks. *Journal of Applied Accounting Research*, *11*(1), 4–23. doi:10.1108/09675421011050009

Mizuno, M. (2010). Institutional Investors, Corporate Governance and Firm Performance in Japan. *Pacific Economic Review*, *15*(5), 653–665. doi:10.1111/j.1468-0106.2010.00521.x

Mohamad, N. R., Abdullah, S. N., Mohktar, M. Z., & Nik Kamil, N. F. (2010). The effects of board independence, board diversity and corporate social responsibility on earnings management. In *Finance and Corporate Governance Conference 2011 Paper* (pp. 1–24).

Mulili, B. M., & Wong, P. (2011). Corporate governance practices in developing countries: The case for Kenya. *International Journal of Business Administration*, *2*(1), 14–27. doi:10.5430/ijba.v2n1p14

Nu, S., Htay, N., Majdi, H., Rashid, A., Adnan, M. A., Kameel, A., & Meera, M. (2011). Corporate Governance and Risk Management Information Disclosure in Malaysian Listed Banks : Panel Data Analysis. *International Review of Business Research Papers*, *7*(4), 159–176.

O'Donavan, G. (2000). *Legitimacy theory as an explanation for corporate environmental disclosures*. Victoria University of Techno.

Oliveira, J., Rodrigues, L. L., & Craig, R. (2011). Risk-related disclosures by non-finance companies: Portuguese practices and disclosure characteristics. *Managerial Auditing Journal*, *26*(9), 817–839. doi:10.1108/02686901111171466

Ping, L. E. E. S. (2012). *Corporate Governance and Strategic CSR Practices Influence on Credibility of Sustainability Report By*. Universiti Sains Malaysia.

Popa, A., Blidi, R., & Bogdan, V. (2009). Transparency and disclosure between theory and practice . A case study of Romania. In *FIKUSZ '09 Symposium for Young Researchers* (pp. 173–183).

Pratten, J. D., & Mashat, A. A. (2009). Corporate social disclosure in Libya. *Social Responsibility Journal*, *5*(3), 311–327. doi:10.1108/17471110910977258

Rahim, A., Atan, R., & Amrizah, K. (2011). Intellectual Capital Reporting in Malaysian Technology Industry. *Asian Journal of Accounting and Governance*, *59*, 51–59.

Rahman, R. A., Kighir, A., Oyefeso, L. O., & Salam, O. A. (2013). Risk Management Disclosure Practices of Islamic Banks in the Mena Region : An Empirical Analysis. *Middle East Journal of Scientific Research*, *15*(1), 152–160. doi:10.5829/idosi.mejsr.2013.15.1.2188

Ramly, Z. (2012). Impact of corporate governance quality on the cost of equity capital in an emerging market : Evidence from Malaysian listed firms. *African Journal of Business Management*, *6*(4), 1733–1748. doi:10.5897/AJBM10.1624

Reverte, C. (2008). Determinants of corporate social responsibility disclosure ratings by Spanish listed firms. *Journal of Business Ethics*, *88*(2), 351–366. doi:10.1007/s10551-008-9968-9

Robb, S. W. G., Single, L. E., & Zarzeski, M. T. (2001). Nonfinancial disclosures across Anglo-American countries. *Journal of International Accounting, Auditing & Taxation*, *10*, 71–83.

Rouf, A. (2012). The financial performance and corporate governance disclosure : A study in the annual reports of listed companies of Bangladesh. *Pak. J Commer. Soc.Sci*, *6*(1), 1–11.

Shil, N. C., & Paramanik, A. K. (2009). A look into the disclosure improvements for CSR reporting in Bangladesh. *Malaysian Accounting Review*, *8*(2), 67–83.

Sweeney, L., & Coughlan, J. (2008). Do different industries report Corporate Social Responsibility differently? An investigation through the lens of stakeholder theory. *Journal of Marketing Communications*, *14*(2), 113–124. doi:10.1080/13527260701856657

Ullman, A. A. (1985). Data in search of a theory: A critical examination of the relationship among social performance, social disclosure and economic performance. *Academy of Management Review,*, *10*(3), 540–557.

Vafaei, A., Taylor, D., & Ahmed, K. (2011). The value relevance of intellectual capital disclosures. *Journal of Intelectual Capital*, *12*(3), 407–429. doi:10.1108/14691931111154715

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

343

Van der Laan, S. (2009). The role of theory in explaining motivation for corporate social disclosures : voluntary disclosures vs " solicited " disclosures. *The Autralasian Accounting Business & Finance Journal*, *3*(4), 15–30.

Wan Mohamad, W. I. A., & Sulong, Z. (2010). Corporate governance mechanisms and extent of disclosure : evidence from listed companies in Malaysia. *International Business Research*, *3*(4), 216–228.

Wibowo, A. J. (2012). Interaction between Corporate Social Responsibility Disclosure and profitability of Indonesia Firms. In *UMT 11th International Annual Symposium on Sustainability Science and Management*.

Yekinni, C. O. (2008). Social and environmental reporting: How informative is the disclosure of community involvement cost - qualitative of quantitative. In *social and environmental reporting community disclosure* (pp. 1–29).

Yi, A., & Davey, H. (2010). Intellectual capital disclosure in Chinese (mainland) companies. *Yi, An Davey, Howard*, *11*(3), 326–347. doi:10.1108/14691931011064572

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

344

The Pricing of Listed Equities – New Perspectives on the Dividend Factor

Fong Choong Ee[a] and Chin Yoon Mei[b]

[a] *Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Malaysia,* *fongce@utar.edu.my*

[b] *ymchin20@yahoo.com*

Abstract

The prices at which stocks and shares are traded stock exchanges have always fascinated researchers, academic and professionals. This situation has resulted in extensive research into this topic and seen the publication of numerous articles in academic journals. The model published by Williams, J.B. in 1938 used the net present value of potential cash inflows in the form of dividends. This model, with improvements by later researchers, has been the base model used for subsequent research. This base model and its derivatives have continued to be used for various purposes ranging from the sale/acquisition of unlisted continuing businesses to the pricing of initial public offerings. However, these models have failed and continue to fail to explain the prices at which equities are traded in the world's stock markets. Academic researchers are increasingly gravitating towards the conclusion that different factors or variables impacts the prices under different circumstances, whether it be varying economic conditions, or whether the equities are traded by retail investors or by fund managers. This paper takes the view that different models should be devised for significantly different set of circumstances. This paper focuses on one of these set of circumstances, and researches into the impact of the dividend yield and timing of dividend payouts on the prices of the equities of the largest companies listed on Bursa Malaysia.

Keywords: Equity, Pricing, Bursa, Malaysia, Finance, Dividend, Yield, Payout,Timing

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

345

Effect of Geographical Diversification on Informational Efficiency

Suan Poh[a] , Chee-Wooi Hooy[b]

[a] School of Management, Universiti Sains Malaysia, Malaysia, pohsuan891@gmail.com

[b] Finance Section, School of Management, Universiti Sains Malaysia, Malaysia, cwhooy@usm.my

Abstract

This study first examines the effect of geographic diversification on informational efficiency. Four types of geographical diversification indicators are used to capture different degrees geographical diversification of a firm. By using panel data of more than 250 public listed firms in Malaysia across 11 industries for 8 years, geographical diversification indicators show significant and positive relationship with local and global delay measures. For robustness test, this study investigates the biased result caused by unobserved time and firm effects by clustering the standard errors by firm, time and both dimensions, respectively. To further manifest the effect of investor recognition hypothesis, dummy of KLCI index is introduced as moderator to geographical diversification indicators and shows negative and significant relationship with global delay measure. In further study, this study investigates the effect of shareholdings both as independent variable to price delay and as moderator to geographical diversification indicators. The outcome indicates that foreign shareholdings present significant results for both local and global delay.

Keywords: Informational efficiency, Geographical diversification, Malaysia, Shareholdings

Geographical diversification can be defined as a firm's expansion geographically beyond the borders of its original home country. It also refers to the extent of which firms operate internationally by investing in assets and controlling activities outside their home country (Teece, 1981). The extent of geographical diversification can be broadly categorized by the sales, assets and orientation of the firms (Annavarjula & Beldona, 2000). Geographic diversification is one of the strategic paths to continue diversifying the company activities to other countries when the market in national level has been saturated. Regardless of the great challenges and difficulties of its implementation, geographic diversification attracts companies with huge opportunities for long term growth in the markets of other countries without changing their main operating activities.

Over the past 25 years, the increasingly integrated capital markets and globalization have lowered the cost of companies doing business in foreign markets. Foreign investment made by corporations in the industrialized nations has grown dramatically. Firms prevalently adopt diversification, similar business operations in different countries, as a main corporate strategy to gain competitive advantages (Barney & Hesterly, 2008; Chang & Wang, 2007; Hitt et al., 1997). For example, large

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

346

publicly traded US and EU firms operate their businesses, on average, in more than three different geographic markets. (Bodnar *et al.*, 1999; Pavelin & Barry, 2005).

Geographical diversification is said to confer a number of advantages, including full use of resources and distribution of costs on the basis of the growing market and product range which leads to economies of scale (Ghoshal, 1987). To the extent that firms are able to leverage their operations worldwide, international investment may enable them to capture valuable operating synergies (Feinberg & Phillips, 2002). Human capitals in multinational companies can learn and innovate faster (Bartlett & Ghoshal, 2000). Companies which are able to expand their business globally can gain access to specific skills with lower cost (Kogut, 1985; Porter, 1986). Companies can also shift their production lines to other countries with lower labor cost (Kogut & Kulatilaka, 1994).

This paper departs from the traditional focus of geographical diversification on benefits and costs of firm values to a relatively less explored area, the informational efficiency of stock markets. Market efficiency can be defined as the extent and speed of market prices of tradable assets incorporate available information. High market efficiency means the process of incorporating information into market prices is fast and complete.

Informational efficiency becomes a prominent topic in research area after Hou & Moskowitz (2005) propose a price delay model to measure informational efficiency. This price delay model has several advantages compared to conventional tests. First, it permits researchers to identify various factors that affect the informational efficiency of stocks. Second, it enables researchers to measure the adjustment of stock price to both local and global market information.

Since this price delay measure has been proposed, a lot of studies have been done to investigate the determinants of the informational efficiency. For example, Callen et al. (2013) examine the effect of accounting quality on informational efficiency for stocks listed in CRSP across the period of 1981 to 2006. Chen & Rhee (2010), Boehmer & Wu (2013), and Saffi & Sigursson (2011) examine the relationship between short sales constraints and price discovery process at the firm level. Bae et al. (2012) examines the effect of market liberalization on asymmetry informational market efficiency for 21 emerging stock markets.

Furthermore, several theoretical and empirical papers have shown that efficient stock prices contribute to the efficient allocation of investment resources because the information of stock prices is used to guide corporate decisions, thus confirming a significant link between the stock market and real sector activity (Bond *et al.*, 2012).

Malaysia presents an interesting case study for geographical diversification related topic because, among ASEAN countries, Malaysia is the country with second largest outflows of foreign direct investments (OFDI) after Singapore. Besides that, Malaysia experiences high growth of foreign direct investment outflow during 2000s. OFDI from Malaysia exceeded inward flows for the first time in 2006. Since then Malaysia has emerged as a net investor with OFDI growing steadily, except in 2009, and OFDI flows have exceeded inward flows in each subsequent year.

The Malaysian government was the first of the ASEAN-4 (Malaysia, Indonesia, the Philippines, and Thailand) actively to promote overseas investment by their companies. With special reliance upon an EOI strategy, related plans, policies and strategies have been developed and implemented to promote

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

347

the development. According to Root (1971), export promotion programs are public policy measures that seek to enhance exporting activity at a firm, industry and national level, and they are typically coordinated through government agencies. Mehmet (1990) said that the investment incentive policies of Malaysia are divided into four categories: fiscal incentives, tariff-related incentives, financial incentives, and finally non-financial incentives.

This study focuses on investigating the effect of geographical diversification on informational efficiency. Four different indicators that are used to represent the degree of geographical diversification of a firm are foreign sales dummy, number of foreign countries, foreign sales ratio and Herfindahl Index. These indicators capture different aspects of a firm geographical diversification. International sales dummy only can determine whether a company involved in geographical diversification. The number of foreign countries indicates the numbers of foreign countries that a firm diversified but cannot show the proportion of foreign sales. The foreign sales ratio can quantify the percentage of sales outside firm's registered company, but cannot capture how many foreign countries that foreign sales diversify. Herfindahl Index can capture both percentage of international sales and number of foreign countries that a firm set foot to.

According to investor recognition hypothesis introduced by Merton (1987), when a company or stock is recognized by more investors, its informational efficiency will be higher than those comparable companies that are less recognized by investors. This hypothesis is actually consistent with the Efficient Market Theory, which states that in an efficient market, there should be indefinite investors that independently do research on the stock. In this study, we make an assumption that when a company undergoes geographical diversification; its recognition to the foreign investors will be higher. Foreigners, which have been exposed to the products of the company in foreign countries will ultimately recognize its company. Based on investor recognition hypothesis, the company which undergoes higher geographical diversification will have higher informational efficiency.

On the other sides, based on cost of information hypothesis (Shapiro, 2002), when the information of a company or stock is hard to acquire, its informational efficiency will decrease. Chen (2005) suggests that individual investors and institutional investors favor information which is easy to understand and widely available. When a company undergoes geographical diversification, its business coverage area becomes larger and the company is exposed to other countries' risk where its business involved in. Its business structure becomes more complex than company that only focuses its sales locally. Such a complex business structure of geographically diversified firm will eventually decrease the potential investors. This hypothesis is consistent with Efficient Market Theory which states that for a market to be efficient, investor should make buy and sell decision rapidly. The complexity of a company's business structure will defer the decision making process.

The purpose of this study is to determine the overall effect of geographical diversification on informational efficiency. By using regression method, our analysis shows that geographical diversification will actually decrease informational efficiency (increase price delay) of a stock. In other words, the cost of information effect is higher than investor recognition effect for a geographical diversified firm.

To further analyze the effect of investor recognize hypothesis, we include the KLCI dummy variable into the equation. The stock that is being included in the KLCI index will be given 1 while the stock that is not will be given 0. KLCI-indexed stocks are acceptable to have higher recognition by investor compared to non-KLCI-indexed stocks. The KLCI dummy variable has been introduced as a moderating factor for different geographical diversification indicators and the results shows that it has a

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

348

significant and negative correlation with price delay measure. In other word, KLCI-indexed stocks will have higher investor recognize effect compared to non-KLCI-index stocks when undergoing geographical diversification.

Besides that, to further prove the cost of information effect on a company, we include the number of industries that a company involved in as a moderator to geographical diversification indicators. A geographical diversified company that involved in many industries is assumed to have more complex structures than other geographical diversified companies that only focus on one business segment.

Methodology and Data

The Local and Global Stock Price Delay Measures
In a completely efficient market, stock prices will react instantly to the arrival of new information. However, in reality, there are many market frictions that delay the price adjustment process. The price delay measure that can be used to measure the lag between the release of new information and price adjustment process is first introduced by Mech (1993) and later popularized by Hou & Moskowitz (2005). In this study, the new information releases only constraint to market-wide information rather than firm-specific information and the release of information is represented by market indices. The present focus on market-wide information is justified on two grounds. First, the releases of information can be indicated by using market indices (Hou & Moskowitz 2005). Second, investors with limited attention will focus more in market-level information because market factor tends to have more influences on their portfolios. (Peng and Xiong, 2006; Schmidt, 2013).

Bae *et al*. (2012) constructs price delay with respect to local and global common factor information because they postulate that foreign investors are likely to have better expertise and resources to process global information. However, on the other hand, foreign investors may be at disadvantage in obtaining local information if compared to local investors. Such an asymmetric of information will affect the result of local and global price delay. Our study also involves foreign investors as an influential factor where geographical diversification will attracts more attentions from foreign investors. Therefore, we follow Bae *et al*. 's(2012) study by including both local and global price delay. Local market information is represented by return of local market index which is KLCI while global market information is represented by return of global market index which is MSCI.

Our construction of the local and global price delay measures follows the framework of Bae *et al*. (2012), which involves the following unrestricted model:

$$r_{i,t} = \alpha_i + \sum_{k=0}^{4} \beta_{i,k} r_{m,t-k} + \sum_{k=0}^{4} \delta_{i,k} r_{w,t-k} + \varepsilon_{i,t} \tag{1}$$

where $r_{i,t}$ is the return on stock i at week t, $r_{m,t-k}$ and $r_{w,t-k}$ denote the contemporaneous and four weekly lagged returns on the local and world market indices, respectively. We follow the convention in the price delay literature in using weekly instead of monthly or daily returns. According to Hou & Moskowitz (2005), the dispersion for monthly data is small because mostly information incorporates into stock price within one month's time whereas for daily returns, there are many microstructure effects that will affect the outcomes such as non-synchronous trading.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

349

The construction requires the following two restricted models:

$$r_{i,t} = \alpha_i + \beta_{0i} r_{m,t} + \sum_{k=0}^{4} \delta_{i,k} r_{w,t-k} + \varepsilon_{i,t} \tag{2}$$

$$r_{i,t} = \alpha_i + \sum_{k=0}^{4} \beta_{i,k} r_{m,t-k} + \delta_{0i} r_{w,t} + \varepsilon_{i,t} \tag{3}$$

For each year from 2002 through 2009, we estimate equations (1) through (3) for every firm in the sample. Their respective R-squares are used to calculate the scaled version of stock price delay for firm i in year t:

$$DELAY_{LC} = 1 - \frac{R^2_{Eq.2}}{R^2_{Eq.1}} \tag{4}$$

$$DELAY_{GB} = 1 - \frac{R^2_{Eq.3}}{R^2_{Eq.1}}$$

$$\tag{5}$$

$DELAY_{LC} \left(DELAY_{GB} \right)$ captures how much the variation in contemporaneous individual stock returns that is explained by the lagged returns on local (world) market index, where the latter is used as a market-wide information signal. The greater the explanatory power of these lags, the longer the delay in responding to market-wide news that has common effects across firms. The value of $DELAY$ is bounded between zero and one, with a value closer to zero (one) indicates faster (slower) speed of information incorporation, and hence higher (lower) degree of stock price efficiency. The data required for the calculation of these stock price delay measures are the weekly closing prices for individual stocks, local market index and world market index. Following the common practice, weekly returns are calculated by compounding daily returns between adjacent Wednesdays. All the data, denoted in local currency (Ringgit Malaysia), are downloaded from Thomson Reuters Datastream. The total return indices for Malaysia and World are used as proxies for local and global market-wide news, respectively.

Key Independent Variables of Geographical Diversification
The data used to construct geographical diversification indicators in this study is gathered from Osirus. International diversification has typically been measured in terms of the intensity of international involvement and in terms of the geographic scope of international operations as highlighted by (Lu & Beamish, 2004). This study employs several types of geographical diversification indicators in order to capture different aspects of geographical diversification.

Four different methods are used to measure geographical diversification in this study. The first indicator used is foreign sales dummy variable (DUMSALES) . Firms are classified as 'diversified' or 'focused' based on the number of segments disclosed. Firms that fulfil the following conditions are classified as diversified: with more than a single segment and where the sales in the largest segment are less than 90% of total sales. Firms that do not fulfil the conditions are classified as focused (Fauver et al., 2003).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

350

The second indicator used is number of foreign countries (FCOUNTRY). This indicator shows the total number of foreign countries that a company diversifies to (Tallman & Li, 1996).

The third indicator used is foreign sales ratio (FSALES). All the sales recorded outside the company registered country are perceived as foreign sales (Tallman & Li, 1996).

$$FSALES = Foreign\ Sales/\ Total\ Sales \tag{6}$$

The fourth variable used is Herfindahl Index (HERFINDAHL) which is constructed from foreign sales in each foreign country which is a common measure used in many previous studies examining diversification issues (Hitt *et al.*, 1997; Denis *et al.*, 2002).

The Herfindahl index is calculated as follows for each firm *i*:

$$HERFINDAHL = 1 - \Sigma(Sales\ per\ segment/Total\ sales)^2 \tag{7}$$

The Herfindahl Index ranges from 0 to 1. The closer Herfindahl Index is to 1, the more a firm's sales diverse geographically, and the closer it is to 0, it means the firm's sales only concentrate in a few countries.

Control Variables
The literature review of informational efficiency shows that there are many researchers focus on finding the determinants of price delay since Hou & Moskowitz (2005) propose a price delay model to measure informational efficiency. Therefore, there are several variables which are commonly being used as control variables in price delay model. The four control variables that are used in this study are firm size, trading volume, liquidity/transaction costs and the number of sell-side security analysts.

First, firm size of a firm (MCAP) is measured by using the annual market capitalization for a firm at the end of the calendar year. Previous researchers such as Lim & Hooy (2010), Phillips (2010), Saffi & Sigurdson (2011), Hou & Moskowitz (2005) do include firm size as control variables in their model.

Second, since Chordia & Swaminathan (2000) show that high trading volume stocks prone to be instantaneously adjusted to new market information compared to low trading volume stocks, trading volume has become an important determinant for price delay. For example, Bae *et al.* (2012), Callen *et al.* (2013), Lim & Hooy (2010), do include this control variable in their study of informational efficiency. In this study, trading volume (VOL) is proxied by the average daily share volume for each firm and year.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

351

Third, our proxy for liquidity/transaction costs is the proportion of zero daily returns in a year for each firm (ZERO) which has been widely used for emerging markets where high-frequency trade and quote data are unavailable (Lesmond, 2005). Thomson Reuters Datastream provides the required firm-level panel data of annual market capitalization, daily share volume, and daily closing stock prices.

Fourth, analyst coverage remains one of the most important control variables which is included by researchers such as Hou & Moskowitz (2005) and Bae *et al.* (2012) in their price delay model. Based on the data given by the Institutional Brokers Estimate System (I/B/E/S), the number of analysts issuing earnings forecasts for a firm during a calendar year is gathered. Analyst coverage is set equal to zero for a firm-year observation if a firm is not listed on the I/B/E/S database or does not have earnings forecasts for any given year. A common criticism against I/B/E/S is that its coverage is biased toward larger firms, which is supported by the strong positive correlation between analyst coverage and firm size. The standard remedy is to construct residual analyst coverage (ANALYSIZE) by regress the natural logarithm of one plus the analyst coverage on the natural logarithm of firm size, and then collect the regression residuals as our proxy.

Model Specification

Multiple regressions based on ordinary least squares (OLS) estimation technique are used to test the hypotheses in this study. OLS is appropriate as it is the most straightforward regression technique and the estimation is reliable as long as common regression problems are accounted for. We follow the common practice in the price delay literature in choosing the control variables and estimator. The pooled ordinary least squares (OLS) regression model is specified as follows:

$$DELAY_{i,t} = \alpha_i + \beta_{1i}\ln(MCAP)_{i,t} + \beta_{2i}\ln(VOL)_{i,t} + \beta_{3i}ZERO_{i,t} + \beta_{4i}\ln(ANALYSIZE)_{i,t} + \beta_{5i}GEOGRAPHICAL\ DIVERSIFICATION_{i,t} + \varepsilon_{it}$$

(8)

Sample firms

Our geographical diversification data for public companies in Malaysia for period 2002-2009 are gathered from Osirus. Osirus provides data about separated sales of public companies according to countries. The geographical diversification data is further compiled becoming our 4 major geographical diversification indicators: (1) dummy for geographical diversifications, (2) foreign sales ratio, (3) numbers of foreign countries, (4) Herfindahl Index.

Our samples initially include all the public companies in Malaysia range from year 2002 until year 2009 and set several criteria to eliminate inappropriate companies.
The first criterion in our sample construction is to ensure that those selected firms are in existence throughout the 8-year sample period. There are only 654 firms that fulfill the first criterion. Second, we find that a significant amount of our sample firms have stale closing prices for a long period of time. It is hence important to determine whether they are suspended by the stock exchange, and this information can be obtained from *Bursa Malaysia*'s website under "Company Announcements". The verification process shows that most firms with prolonged periods of identical prices are due to suspension. We hence exclude those firms that are suspended for more than 2 years, though they later resume trading with a new company name mainly due to acquisitions (but retain the same stock code). As a result of these filters and checks, our final sample comprises 602 stocks over the 8-year period from 2002 to 2009. Third, we exclude all the companies that do not provide complete geographical diversification data by Osirus. This step further decreases the number of firms to 254 firms.

Descriptive Statistics

Table 1 provides the descriptive statistics for all the variables in the baseline model (6). In the emerging

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

352

market sample of Bae *et al.* (2012), the mean for $DELAY_{LC}$ is 0.145 and $DELAY_{GB}$ is 0.158. With an exclusive focus on the Malaysian market, Table 2 shows that the delay measures with respect to local and global common information are higher at 0.2537 and 0.2552, respectively. This implies that the prices of Malaysian individual stocks take longer time to incorporate market-wide news than the average of emerging market firms. The local delay for Malaysia is also higher than those reported for the developed U.S. market whose value is below 0.10 (Hou & Moskowitz, 2005; Callen *et al.*, 2013). The delayed price adjustment to information across developed and emerging markets challenges the assumption of frictionless capital markets in traditional asset pricing models where new information is instantaneously incorporated into stock prices (Griffin *et al.*, 2010). This phenomenon warrants a thorough investigation on those market frictions or information imperfections that impede the price discovery process in the Malaysian stock market.

The average market capital (MCAP) of our sample public company in Malaysia is RM828.65m. The average percentage of zero daily returns (ZERO) is 40.34%. This figure is within the range for most emerging markets as reported by Lesmond (2005). This result shows that Malaysia stock market as one of the emerging markets still facing illiquidity problem. The number of analysts (ANALYST) shows a mean value of 2.30, with minimum of 0 analysts and maximum of 47 analysts. For indicators of geographical diversification, number of foreign countries (FCOUNTRY) records an average value of 1.5146 with a maximum of 20 countries. The average value of foreign sales ratio (FSALES) is 0.1873. HERFINDAHL records a mean value of 0.1788.

<<Insert Table 1 here>>

Table 2 presents the correlation matrix for all variables. The correlation between local and global delay measures is only 0.2565. The correlations between delay measures and geographical diversification indicators depict combined results with correlation between delay measures and FCOUNTRY and correlation between delay measures and FSALES shows negative relationship while correlation between delay measures and Herfindahl shows positive result.

All the correlations are below 0.5 except among geographical diversification indicators. Correlation between FCOUNTRY and FSALES is 0.6247, between FCOUNTRY and HERFINDAHL is 0.7654 and between FSALES and HERFINDAHL is 0.8064. It is expected to have high correlation among geographical diversification indicators because they are used to measure the same thing which is the degree of geographical diversification of a company. Since different geographical diversification indicators are used in different regression model, therefore it can avoid multi-colinearlity problem for regression model.

<<Insert Table 2 here>>

Figure 1 shows the percentage of public companies that undergo geographical diversification into different number of countries in our samples. In year 2002, there are only about 40% of the companies undergo geographical diversification. The percentage increases to about 50% in year 2005 and stable until year 2009. From year 2002 to year 2009, the percentage of public companies diversify into 1 country other than their local country decrease from 10.45% in year 2002 to 7.93% in year 2009. In contrast, percentage of public companies diversify into 5 countries increase from 3.98% in year 2002 to 7.98% in year 2009 whereas percentage of public companies diversify into more than 5 companies increase from

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

353

4.48% in year 2002 to 10.57% in year 2009. This result shows that the companies that had already diversified continue to expand their business to other countries across the years.

<<Insert Figure 1 here>>

Results and Discussions

Baseline Pooled OLS Results
The baseline pooled OLS results in Table 3 use DELAYL as the dependent variable. For local stock price delay, firm size is a strong determinant of local delay with the expected negative sign which is consistent with previous studies. This implies that smaller stocks take longer time than larger stocks in responding to local market-wide news. The proxy for liquidity/transaction costs is statistically significant with its expected sign, suggesting that the existence of trading frictions impedes the swift incorporation of common factor information into Malaysian stock prices. Analyst coverage after adjustment of firm size effects poses a positive and significant relationship to local price delay measure.

<<Insert Table 3 here>>

For different geographical diversification indicators, only foreign sales ratio indicator poses a positive and significant relationship with local price delay. This result can explained as the cost of information effect outrun the investor recognition effect when a company undergoing geographical diversification.

For global stock price delay, firm size is always a significant determinant, an indisputable result in the price delay literature. The proxies for trading volume and liquidity/transaction costs are found to exert significant negative effects on global price delay. However, the result shows that security analysts do not facilitate the incorporation of global market-wide news into stock prices. Overall, the results from Table 3 consistently show the dominance of trading frictions effect over informed trading explanation in the Malaysian market, which provides a clear-cut policy prescription. It highlights that trading frictions are a major impediment to the efficiency of local stocks and should be given utmost priority if the policy objective is to ensure information is timely reflected in stock prices.

For different geographical diversification indicators, both foreign sales ratio and Herfindahl index pose positive and significant relationship with global price delay. Dummy foreign sales indicator and number of foreign countries indicator do not pose any significant result whether to local and global price delay. This result may be due to these two indicators are too simple to capture geographical diversification effects because dummy foreign sales indicator only shows whether a company geographically diversifies and number of countries indicator only shows how many countries does a company diversifies to. Both indicators do not show the sales weightage of a company outside its own country.

Robustness Test by Using OLS with Clustered Firms and Years

We would like to investigate whether the results from Table 3 are biased because of unobserved firm and time effect. In this study, we follow Peterson (2009) by clustering the standard errors by firm, time and both dimensions, respectively. White standard errors serve as benchmark and the year dummies are

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

354

removed from the equation because it is almost similar to time clustering. By comparing white standard errors and clustering standard errors, if clustering standard errors are higher, this indicates there are biases exist and the result with highest standard errors should be used.

By using clustered standard error method to examine the result in Table 3, we find some interesting outcomes. In Table 4, we show the differences that caused by biased standard errors.

<<Insert Table 4 here>>

In Table 4, the relationship between Herfindahl Index and local price delay still remain insignificant after introducing different types of clusters. For global price delay, the white standard error increases from 0.0182 to 0.0193 when using firm cluster. This means there is unobserved firm effect which causes the white standard error to be underestimated. However, the result still remains significant although the significant level decreases from 5% to 10%.

KLCI Index Acts as Moderator

To further prove investor recognition effect, a moderator has been added into the regression model. KLCI dummy is a dummy that indicates whether a company has been listed on KLCI index. KLCI dummy is given 1 if a company is indexed in KLCI and otherwise 0. KLCI dummy is added into the regression model in equation (8) as both independent variable and moderator to geographical diversification indicators. The new equation is shown in equation (9).

$$
\begin{aligned}
DELAY_{i,t} = \alpha_i &+ \beta_{1i}\ln(\text{MCAP})_{i,t} + \beta_{2i}\ln(\text{VOL})_{i,t} + \beta_{3i}\text{ZERO}_{i,t} + \beta_{4i}\ln(\text{ANALYSIZE})_{i,t} + \beta_{5i}\text{LCI}_{i,t} \\
&+ \beta_{6i}\,GEOGRAPHICAL\ DIVERSIFICATION_{i,t} + \beta_{7i}(GEOGRAPHICAL\ DIVERSIFICATION_{i,t} \\
&* \text{KLCI})_{i,t} + \varepsilon_{it}
\end{aligned}
$$

(9)

Investor recognition hypothesis postulates that the more investors recognize a stock, the higher its informational efficiency. In this study, we postulate that, if a KLCI-indexed firm undergoes geographical diversification, its investor recognition effect will be higher that other diversified firms that are not. It will cause negative moderating effect on price delay measure.

From table 5, the result shows that although KLCI dummy does moderate the relationship between geographical diversification indicators and global price delay. Both N_country*KLCI and and Herfindahl*KLCI have significant and negative effect on global price delay measure. In another word, KLCI-indexed firms will have higher investor recognition effect which will reduce price delay when undergoing geographical diversification when comparing to the firms which do not indexed in KLCI.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

355

<<Insert Table 5 here>>

Conclusion

First, geographical diversification indicators show positive and significant relationship with price delay measures. Foreign Sales Ratio shows positive and significant relationship with local delay while Herfindahl Index shows positive and significant relationship with global delay. These result are robust to standard error bias by using standard error clusters estimate.

Second, KLCI Index that acts as moderator to geographical diversification indicators show negative and significant relationship with global price delay measure. This result strengthens the investor recognition hypothesis which states that the firms which possess higher investor recognition will higher informational efficiency.

Third, number of industries that acts as moderator to geographical diversification fails to have any significant result. This outcome may due to the insufficient industry segment data that can be used to run the regression with only 382 observations available compared to total 1922 observations.

Acknowledgement

References

Bae, K. H., Ozoguz, A., Tan, H., & Wirjanto, T. S. (2012). Do foreigners facilitate information transmission in emerging markets? *Journal of Financial Economics*, 105(1), 209–227.

Barney, J.B., Hesterly, W.S., 2008. Strategic management and competitive advantage: Concepts and cases. *Prentice Hall, Upper Saddle River, NJ.*

Bartlett, C. A., & Ghoshal, S. (2000). Transnational management: Text, cases and readings in cross-border management. McGraw-Hill.

Bodnar, G.M., Tang, C., Weintrop, J., 1999. Both sides of corporate diversification: The value impacts of geographic and industrial diversification. *NBER Workingpaper 6224.*

Boehmer, E., & Wu, J. (2013). Short selling and the price discovery process. *Review of Financial Studies*, 26(2), 287–322.

Bond, P., Edmans, A., & Goldstein, I. (2012). The real effects of financial markets. *Annual Review of Financial Economics*, 4, 339–360.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

356

Callen, J. L., Khan, M., & Lu, H. (2013). Accounting quality, stock price delay, and future stock returns. *Contemporary Accounting Research*, 30(1), 269–295.

Chang, S.C., Wang, C.F., 2007. The effect of product diversification strategies onthe relationship between international diversification and firm performance. *Journal of World Business,* 42 (1), 61–79.

Chen, C.X. and Rhee, S.G. (2010). Short sales and speed of price adjustment: Evidence from the Hong Kong stock market. *Journal of Banking and Finance*, 34, 471-483

Chordia, T., & Swaminathan, B. (2004). Incomplete information, trading costs and cross-autocorrelations in stock returns. *Economic Notes*, 33(1), 145–181.

Denis, D.J., Denis, D.K.,& Yost, K.(2002). Global diversification, industrial diversification, and firm value. *Journal of Finance*, 57 (5), 1951–1979.

Fauver, J. H. and Naranjo, A. (2003) Capital market development, international integration, legal systems, and the value of corporate diversification: A cross-country analysis. *Journal of Financial and Quantitative Analysis*, 38(1), 135-157.

Ghoshal, S. (1987). Global strategy: An organizing framework. *Strategic Management Journal*, 8(5): 425–440.

Hitt, M.A., Hoskisson, R.E., & Kim, H., (1997). International diversification: effects on innovation and firm performance in product-diversified firms. *Academy of Management Journal* ,40 (4), 767–798.

Hou, K., & Moskowitz, T. J. (2005). Market frictions, price delay, and the cross-section of expected returns. *Review of Financial Studies*, 18(3), 981–1020.

Kogut, B. (1985). Designing global strategies: Comparative andcompetitive value-added chains. *Sloan Management Review*,26(4): 15.

Kogut, B., & Kulatilaka, N. (1994). Operating flexibility, global manufacturing, and the option value of a multinational network. *Management Science*, 40(1): 123–139.

Lesmond, D. A. (2005). Liquidity of emerging markets. *Journal of Financial Economics*, 77(2), 411–452.

Lim, K.P., & Hooy, C.W. (2010). The delay of stock price adjustment to information: A country-level analysis. *Economics Bulletin*, 30, 1609-1616

Lim, K.P., Hooy, C.W., Chang, K. B., & Brooks, R. D. (2013). Foreign Shareholding and Stock Price Efficiency: Firm-level Evidence from Malaysia. *SSRN Working Paper*.

Lo, A. W., & MacKinlay, A. C. (1990). When are contrarian profits due to stock market overreaction ? *Review of Financial Studies*, 3(2), 175–205.

Lu, J. W., & Beamish, P. W. (2004). International diversification and firm performance: The s-curve hypothesis. *Academy of Management Journal*, 47(4): 598–609.

Madan Annavarjula, & Sam Beldona, (2000) Multinationality-performance relationship:A review and reconceptualization. *International Journal of Organizational Analysis*, 8 (1), 48 - 67

Mech, T. S. (1993). Portfolio return autocorrelation. *Journal of Financial Economics*, 34(3), 307–344.

Mehmet S. D. (1990). Internationalisation of the Malaysian economy: role of Japan, *Ph.D Thesis, University of Malaya, Kuala Lumpur, Malaysia.*

Merton, R. C. (1987). A simple model of capital market equilibrium with incomplete information, *Journal of Finance*, 42, 483-510.

Pavelin, S.,& Barry, F. (2005). The single market and the geographical diversification of leading firms in the EU. *The Economic and Social Review* 36 (1), 1–17.

Peng, L., & Xiong, W. (2006). Investor attention, overconfidence and category learning. *Journal of Financial Economics*, 80(3), 563–602.

Petersen, M. A. (2009). Estimating standard errors in finance panel data sets: Comparing approaches. *Review of Financial Studies*, 22(1), 435–480.

Phillips, B. (2011). Options, short-sale constraints and market efficiency: A new perspective. *Journal of Banking & Finance*, 35(2), 430–442.

Porter, M. E. (1986). Changing patterns of international competition. *California Management Review*, 28(2): 9–40.

Root F. R. (1971). The elements of export promotion, *International Trade Forum*, 118-21

Saffi, P. A. C., & Sigurdsson, K. (2011). Price efficiency and short selling. *Review of Financial Studies*, 24(3), 821–852.

Schmidt, D. (2013). Investors' attention and stock covariation: Evidence from Google sport searches. *Working Paper, INSEAD.*

Shapiro, A.(2002). The Investor Recognition Hypothesis in a Dynamic General Equilibrium:Theory and Evidence. *Review of Financial Studies*,15(1), 97–141.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

357

Tallman, S., & Li, J. (1996). Effects of international diversity and product diversity on the performance of multinational firms. *Academy of Management Journal*, 39(1): 179.

Teece, & David (1981). Multinational enterprise: Market failure and market power considerations. *Sloan Management Review* , 22(3), 3-17.
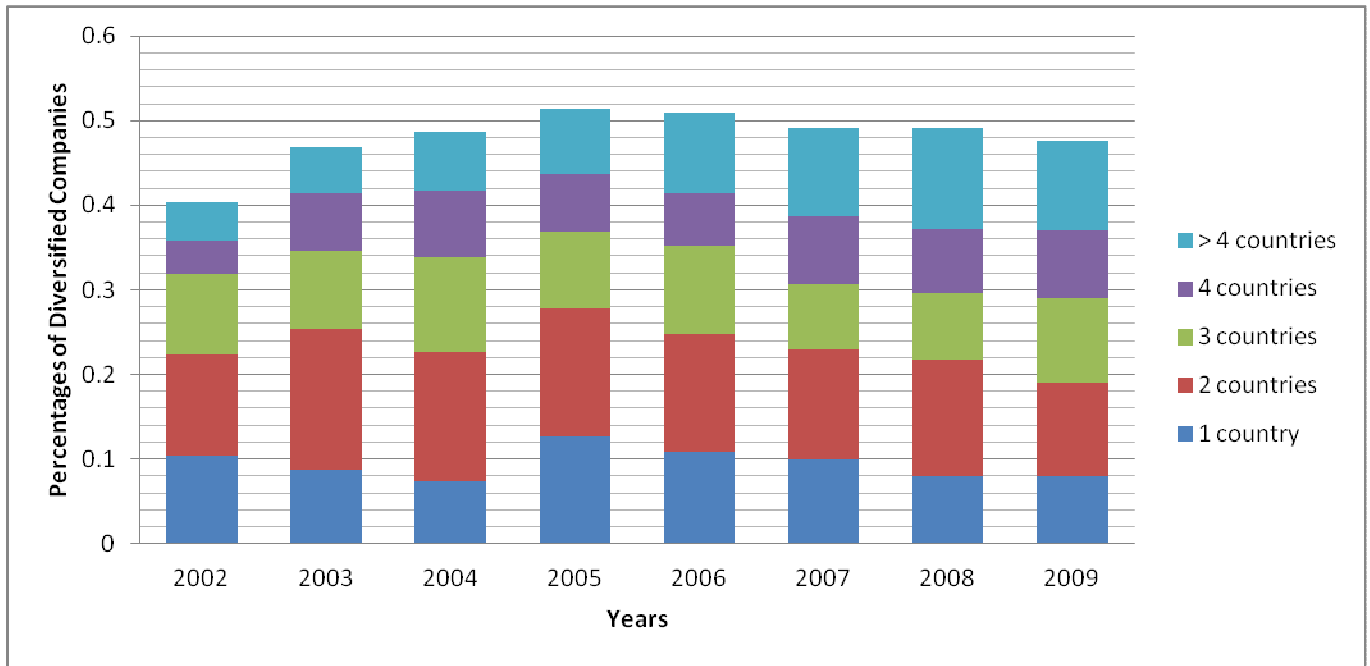
Figure 1: Percentages of Companies Diversify into Different Numbers of Foreign Countries

Table 1: Descriptive Statistics

Variables	Mean	Median	Minimum	Maximum	Standard Deviation
DELAYL	0.2537	0.2131	0.0042	0.9677	0.1804
DELAYG	0.2552	0.2145	0.0017	0.9914	0.1779
MCAP	828.6535	126.5100	3.2000	39236.1600	2913.7110
VOL	694.8754	123.4000	1.8800	26726.0200	1935.7860
ZERO	0.4034	0.3740	0.1145	0.9580	0.1601
ANALYST	2.2991	0.0000	0.0000	47.0000	5.7291
FCOUNTRY	1.5146	0.0000	0.0000	20.0000	2.2310
FSALES	0.1873	0.0254	0.0000	0.9918	0.2675
HERFINDAHL	0.1788	0.0000	0.0000	0.8433	0.2372

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

358

Notes: DELAYL and DELAYG refer to the local and global delay measures, computed from Eqs. (4) and (5), respectively. MCAP is market capitalization at year end. VOL is average daily share volume. ZERO is the proportion of zero daily returns in a year. ANALYST refers to the number of analysts issuing earnings forecasts for a firm over the year. FCOUNTRY refers to number of foreign countries that a firm diversifies to. FSALES is foreign sales ratio calculated from Eq. (6). HERFINDAHL is Herfindahl Index calculated form Eq. (7).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

359

Table 2: Correlation Matrix

	DELAYL	DELAYG	lnMCAP	lnVOL	ZERO	lnANALYSIZE	DUMSALES	FCOUNTRY	FSALES	HERFINDAHL
DELAYL	1									
DELAYG	0.2565	1								
lnMCAP	-0.2195	-0.2249	1							
lnVOL	-0.2200	-0.2424	0.4639	1						
ZERO	0.3100	0.2894	-0.3907	-0.5896	1					
lnANALYSIZE	0.0111	-0.0443	0.2359	0.1620	-0.0190	1				
DUMSALES	-0.0323	-0.0357	0.1415	0.1277	-0.1420	-0.0660	1			
FCOUNTRY	-0.0289	-0.0561	0.1323	0.0881	-0.1311	0.0157	0.6329	1		
FSALES	-0.0061	-0.0029	0.1231	0.1432	-0.1306	-0.0431	0.8077	0.6247	1	
HERFINDAHL	0.0041	0.0103	0.0980	0.077	-0.1114	-0.0449	0.7983	0.7654	0.8064	1

Notes: DELAYL and DELAYG refer to the local and global delay measures, computed from Eqs. (4) and (5), respectively. lnMCAP is natural logarithm of market capitalization at year end. lnVOL is natural logarithm average daily share volume. ZERO is the proportion of zero daily returns in a year. lnANALYSIZE refers to residual analyst coverage, where the residual comes from a regression of natural logarithm of one plus the analyst coverage on natural logarithm of firm size. DUMSALES is a dummy to indicate firm with foreign sales. FCOUNTRY refers to number of foreign countries that a firm diversifies to. FSALES is foreign sales ratio calculated from Eq. (6). HERFINDAHL is Herfindahl Index calculated from Eq. (7).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

360

Table 3: Price Delay and Geographical Diversification Indicators

	DELAYL						DELAYG				
	(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)
lnMCAP	-0.0137***	-0.0139***	-0.0145***	-0.0139***	-0.0146***		-0.0129***	-0.0130***	-0.0136***	-0.0131***	-0.0141***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)		(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
lnVOL	-0.0047	-0.0048	-0.0031	-0.0052*	-0.0031		-0.0078***	-0.0080***	-0.0071**	-0.0083***	-0.0070**
	(0.1112)	(0.1002)	(0.3164)	(0.0810)	(0.3154)		(0.0063)	(0.0057)	(0.0183)	(0.0039)	(0.0199)
ZERO	0.2552***	0.2569***	0.2503***	0.2562***	0.2527***		0.2158***	0.2171***	0.2228***	0.2167***	0.2302***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)		(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
lnANALYSIZE	0.0116**	0.0122**	0.0118**	0.0124**	0.0124**		0.0019	0.0023	0.0003	0.0026	0.0004
	(0.0274)	(0.0217)	(0.0309)	(0.0193)	(0.0239)		(0.7160)	(0.6580)	(0.5939)	(0.6121)	(0.4768)
CONSTANT	0.1961***	0.1943***	0.2004***	0.1950***	0.1994***		0.2590***	0.2576***	0.2627***	0.2579***	0.2568***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)		(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
DUMSALES		0.0008						0.0062			
		(0.3021)						(0.4269)			
FCOUNTRY			0.0010						-0.0003		
			(0.5605)						(0.8509)		
FSALES				0.0266*						0.0273*	
				(0.0726)						(0.0699)	

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

361

HERFINDAHL					0.0241					0.0372**
					(0.1672)					(0.0411)
N	1922	1922	1922	1922	1922	1922	1922	1922	1922	1922
Adjusted R^2	0.1654	0.1655	0.1582	0.1665	0.1590	0.1223	0.1221	0.1234	0.1235	0.1257

Notes: The descriptions for all the variables listed above are given in the notes of Table 2. This table presents the estimation results for the pooled OLS model in Eq. (8). Year dummies are included in the regressions but not reported for brevity. .P-values are reported in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

362

Table 4: Robustness Test for Herfindahl Index for Different Clusters

	DELAYL				DELAYG			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	White	Firm-Clustered	Year-Clustered	Double-Clustered	White	Firm-Clustered	Year-Clustered	Double-Clustered
lnMCAP	-0.0146***	-0.0146***	-0.0146***	-0.0146***	-0.0141***	-0.0141***	-0.0141***	-0.0141***
	(0.0028)	(0.0032)	(0.0032)	(0.0036)	(0.0030)	(0.0034)	(0.0036)	(0.0040)
lnVOL	-0.0031	-0.0031	-0.0031	-0.0031	-0.0070**	-0.0070**	-0.007	-0.0070*
	(0.0031)	(0.0033)	(0.0038)	(0.0040)	(0.0030)	(0.0031)	(0.0037)	(0.0038)
ZERO	0.2527***	0.2527***	0.2527***	0.2527***	0.2302***	0.2302***	0.2302***	0.2302***
	(0.0342)	(0.0403)	(0.0422)	(0.0472)	(0.0335)	(0.0374)	(0.0378)	(0.0413)
lnANALYSIZE	0.0124**	0.0124**	0.0124*	0.0124**	0.004	0.004	0.004	0.004
	(0.0055)	(0.0059)	(0.0055)	(0.0058)	(0.0056)	(0.0061)	(0.0051)	(0.0056)
HERFINDAHL	0.0241	0.0241	0.0241	0.0241	0.0372**	0.0372*	0.0372*	0.0372**
	(0.0175)	(0.0184)	(0.0175)	(0.0184)	(0.0182)	(0.0193)	(0.0158)	(0.0171)
CONSTANT	0.1994***	0.1994***	0.1994***	0.1994***	0.2568***	0.2568***	0.2568***	0.2568***
	(0.0282)	(0.0326)	(0.0274)	(0.0319)	(0.0284)	(0.0300)	(0.0291)	(0.0306)
N	1922	1922	1922	1922	1922	1922	1922	1922

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

363

Adjusted R^2	0.1590	0.1590	0.1590	0.1590	0.1257	0.1257	0.1257	0.1257

Notes: The descriptions for all the variables listed above are given in the notes to Table 2. This table presents the estimation results for the pooled OLS model in Eq. (8). Year dummies are included in the regressions but not reported for brevity. Standard errors are reported in parentheses, with different treatments in each column, namely White heteroscedastic-robust, firm-clustered, time-clustered, and double-clustered by firm and time. N denotes the number of observations. [***], [**] and [*] denote statistical significance at the 1%, 5% and 10%levels, respectively.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

364

Table 5: KLCI Dummy Moderator for Global Delay Measure

	DELAYG				
	(1)	(2)	(3)	(4)	(5)
lnMCAP	-0.0116***	-0.0119***	-0.0129***	-0.0117***	-0.0134***
	(0.0011)	(0.0009)	(0.0006)	(0.0010)	(0.0003)
lnVOL	-0.0077***	-0.0077***	-0.0068**	-0.0081***	-0.0066**
	(0.0074)	(0.0072)	(0.0257)	(0.0049)	(0.0285)
ZERO	0.2160***	0.2173***	0.2247***	0.2172***	0.2316***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
lnANALYSIZE	0.0027	0.0027	0.0039	0.0032	0.0036
	(0.5988)	(0.6063)	(0.4849)	(0.5516)	(0.5240)
KLCI	-0.0099	-0.0035	0.0172	-0.0061	0.0113
	(0.4312)	(0.8290)	(0.3006)	(0.6840)	(0.4750)
CONSTANT	0.2535***	0.2517***	0.2547***	0.2512***	0.2500***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
DUMSALES		0.0080			
		(0.3585)			
DUMSALES*KLCI		-0.0119			

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

365

		(0.5057)			
FCOUNTRY		0.0011			
		(0.5854)			
FCOUNTRY *KLCI		-0.0080**			
		(0.0152)			
FSALES				0.0319*	
				(0.0679)	
FSALES*KLCI				-0.0207	
				(0.5188)	
HERFINDAHL					0.0504**
					(0.0149)
HERFINDAHL*KLCI					-0.0842**
					(0.0191)
N	1922	1922	1922	1922	1922
Adjusted R^2	0.1221	0.1216	0.1239	0.1230	0.1265

Notes: The descriptions for all the variables listed above are given in the notes of Table 2. This table presents the estimation results for the pooled OLS model in Eq. (9). KLCI is a dummy variable used to indicate whether a firm is indexed in KLCI. Year dummies are included in the regressions but not reported for brevity. P-values are reported in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively.

Determinants Affecting the Auditor Switching: A Malaysian Study

Kogilavani Apadore, Chan, W.T., Lam, S.W., and Ng, W.Y.

Department of Commerce and Accountancy, Faculty of Business and Finance
University Tunku Abdul Rahman, Kampar, Perak.
kogilavani@utar.edu.my

Abstract
The impact of auditor switching on the auditor's independence has become an important subject and is widely studied in developing countries (Chadegani, Mohamed, & Jari, 2011). This paper aims to empirically examine the factors that could explain auditor switching among companies under the Malaysia's Trading and Services (T&S) industry. The theory employed in this research is the agency theory which was first proposed by the scholars Stephen Ross and Barry Mitnick. In this study, level of complexity, level of risk, ownership concentration, audit fees, and going concern, issue are believed to be associated with auditor switching between Malaysia's T&S companies. Research methodology of this study is that this research is designed as a cross-sectional study. Secondary data collection method approach is used in this study with sources obtained from Bursa Malaysia. The targeted populations are firms under the Malaysia's T&S industry. Descriptive and inferential analysis will be performed to analyze the results generated. The paper has implored important implication as this research offers better insights into the association between auditor and client firm characteristics towards auditor change. Besides that, this research is going to be beneficial for the management and investors to identify early signal of potential problem which may occur in the future and eventually help to eliminate the chances of auditor changes in Malaysia. Theoretically, this study contributes an improved model on factors affecting auditor switching in Malaysia, by focusing on two new factors that yet to be studied in Malaysian context.

Keywords: auditor switching, trading and services industry

Introduction

Auditing and assurance services help to ensure the financial statement information is reliable and credible for decision making purposes. As defined by Okolie (2007), audit independence is a term referring to the approach and manner of objectivity and truthfulness. Hence, in modern accounting practice, independence of auditor is viewed as an essential auditing standard as it enhances the effectiveness of the audit by ensuring the objectivity of the audit process (Oladele, 2007).

The auditor and audit environmental characteristics may affect the auditor appointment in two ways, either to retain the incumbent auditor or to appoint a new auditor. Auditors' retention may benefit in terms of protecting the significant accounting judgement, highlighting the weaknesses in the audit process as well as gaining trust from investors in the reliability of the auditors' opinions. Concerns on the issue of auditor switching have been raised since the early 1970s (Nazri, Smith, & Ismail, 2012). The auditor change may have an impact on auditor independence and may diminish the credibility, financial statements (Woo & Koh, 2001). Switching away from the existing auditor is also costly in terms of incremental financial and managerial time required to select and familiarize a new auditor. This also means sacrificing any firm-specific expertise and knowledge developed by the incumbent auditor throughout the past few years of audit (Hennes, Leone, & Miller, 2010).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

367

Some of the most recent analysis of auditor switching was conducted by Chadegani et al. (2011) on the Tehran Stock Exchange (TSE), Nazri et al. (2012) in Malaysia and Suyono, Yi, and Riswan (2013) in Indonesia. In this respect, they have proven that auditor switching is still an issue of concern. Anyway, auditor switches will usually not happen without a cause, but occur when the auditor - client relationship are not satisfied (Calderon and Ofobike, 2008).

This research provides useful insight for management, investors and auditors of companies, on factors leading to auditor switching. This research is able to contribute better understandings on the association between auditor and client firm characteristics towards auditor change and to provide management and investors with an early signal of potential problem which may occur in the future and eventually help to eliminate the chances of auditor changes in Malaysia. Finally, the findings able to further enhance the regulation of auditors' responsibilities in audit and assist effective regulation in auditing profession in Malaysia (Ismail et al., 2008).

Operationalization of Research Variables

Agency theory has emerged to be a valuable economic theory of accountability in describing the auditor change (Nazri et al., 2012). The theory is defined as the attempt to explain the relationship between the principal and the agent in delegating the tasks (Eisenhardt, 1989). Auditors, as the agent, required to reduce the information risk, provide a check on managers' performance, and mitigate the agency problems behind the demand for audit and assurance services (Imhoff, 2003; Fan & Wong, 2005). As auditors will have conflict between retaining the professional norms and fulfilling the managers' wishes, this eventually leads to the auditor switching decision in replacing the incumbent auditors. As firm size increases, the increased number of agency relationships will make it more difficult for the principals to monitor the behavior of agents (Boon et al., 2007; Calderon & Ofobike, 2008; Nazri et al., 2012). Apart from that, majority shareholders may take advantage for own opportunistic behavior and ignore the contracting interest of the minority shareholders (Zhang, Cheng, & Ren, 2013). In Chen's (2007) findings, the largest shareholders are more likely to develop audit collusion phenomena with previous auditors. Sikka (2009) has also raised questions of the auditor independence, when a large amount of audit and non-audit fees were collected by the auditors within a short period. Companies with full disclosure of accounting information are proven to have a lower probability in switching auditors as well (Zhang et al., 2013).

Complexity is defined as a measurement tool for audit difficulty for account balances and classes of transactions that involve additional audit period and effort (Boon et al., 2007). In order to measure the company's size to describe the complexity level, the square root of aggregate assets which is after adjusting inflation is used (Woo & Koh, 2001). According to Chadegani et al. (2011), audit size is closely related to the level of complexity whereby, large firms usually have a more complex operational structure and therefore require expertise from large auditing firms to reduce agency cost. Councils with lower levels of complexity are more likely to appoint a specialist auditor (Boon et al., 2007) and complex client firms are more likely to change auditor (Nazri et al., 2012).

Risk is defined as the probability that a randomly selected firm at a given point of time will have a level of economic performance that may bring about a situation of financial distress or even bankruptcy (Ruano & Salas, 2004). Risk is measured by a ratio scale based on the ratio of current asset to current liabilities (Boon et al., 2007). Risk and profitability are associated with the appointment of a quality audit firm. Councils with a higher level of risk are more likely to appoint a Big N audit firm and to appoint a specialist audit firm (Boon et al., 2007). A recent study was conducted by Chadegani et al. (2011), financial distress factor and results indicated that financial distress has a positive relationship with auditor switch. Suyono et al. (2013) examined the financial condition of the client as a determinant factor affecting audit switching in Indonesia. The findings showed that the financial condition of the client significantly and positively affected auditor switching.

Ownership concentration is defined as the level of common stock held by the majority shareholder (Woo & Koh, 2001). Ownership concentration refers to the power of a company exercise in the stewardship of the company total portfolio of assets and objective (Abu Bakar, 2010). From the perspective of the internal corporate governance mechanism, firm with a higher percentage of total

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

368

shares held by its controlling shareholder will more likely switch auditor (Lin and Liu, 2009). Study conducted by Ming (2007) has identified there is an association between firm internal corporate governance mechanism and the auditor choice. However, Bagherpour (2007) showed a contradicting opinion where concentrated ownership is negatively associated with auditor switching. The result reported that the concentration variable is negative and is inconsistent with prior studies that confirmed on the presence of positive association between ownership concentration and switching auditors (Woo & Koh, 2001).

Audit fee is measured by the ratio of the preceding years to the auditor-change year's audit fee (Woo & Koh, 2001). As defined by Calderon and Ofobike (2008), change in audit fee is identified as the desire to reduce audit fees when there was a fee dispute between the refistrant and the departing auditor. Suyono et al. (2013) concluded that the audit fee does not have any effect on the auditor switching. However, a study on the characteristics of companies that change and do not change auditor in Malaysia showed that the audit fee is associated with auditor switching (Wan Mohamed et al., 2007). Furthermore, a Canadian study conducted by Fontaine and Letaifa (2012) has determined the reasons clients change auditor and client's perceived value of the audit service. Audit fee has been identified as one of the most cited reasons for auditor switch.

Wan Mohamed et al. (2007) defined going concern status as the client company's ability to endure in its chosen industry. Meanwhile, Calderon and Ofobike (2008) explained that going concern is an indication of whether the registrant incharged of auditor filling, has disclosed any previous qualified audit opinion with emphasis on going concern issue. Past studies by Calderon and Ofobike (2008) have analyzed data using classification and regression trees (CART) and revealed that going concern was clearly associated with the auditor change decision. Another study in Belgium had indicated that auditor switching is related to the year of mandatory term in which a going concern opinion is given (Vanstraelen, 2000). Furthermore, another past study conducted to determine whether incumbent voluntary switching patterns would form a forced rotation system. The finding has shown that the length of audit tenure increases audit quality by using the propensity to issue a going-concern opinion, and thus lead to reduction in auditor switches (Jackson, Moldrich, & Roebuck, 2008).

Resignation and removal of auditors from the client firm is part of the auditor change (Turner, Williams & Weirich, 2005). Auditor change is defined as the corporate management decisions to change or retain the auditor when there are changes in firm characteristics align with the passage of time (Huson, Ali, Annuar, Ariff & Shamsheer, 2000). Moreover, Chadegani et al. (2011) indicated that client size and audit quality factors have negative relationships with auditor switch. Financial distress and change in management have a positive relationship with auditor switch. However, qualified audit opinion and auditor fees that were predicted to have negative relationships with auditor switch, yield positive relationships. Another study was carried out by Nazri et al. (2012), the findings are consistent with prior studies except for the receipt of a qualified audit opinion, and factors such as changes in management, client firm size, complexity and client firm growth are proven to have influence on auditor change. Suyono et al. (2013) found out that the financial condition of the client, the level of competition among audit firms, and tenure of audit are significant to auditor switching. However, the audit fee and the size of audit firm did not affect the auditor switching.

Methodology

This study has adopted a quantitative approach where data is extracted from annual report listed in Main Market of Bursa Malaysia for the year 2008 to the year 2012. Companies that unable to provide sufficient and detail information within that 5 years are eliminated from this research. The target population for this study is the Malaysia's public listed T&S companies, the strongest engine of the Malaysian economy and has been expanding the Malaysian economy greatly, which has contributed 54.6 per cent to the country's Gross Domestics Product (GDP) in the year 2012, compares to 54.2 per cent in the previous year (Ministry of International Trade and Industry, 2012). The simple random sampling technique is applied in this research as the results generated are free from classification error and highly representative when all the subjects participate. Multiple regression analysis is used to measure the relationship between multiple

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

369

independent variables and a single dependent variable and to identify the most significant independent variable towards the dependent variable. Based on the multiple regression analysis result, multicollinearity problem does not exist in this research and no effect on the overall outcome.

Data Analysis and Discussion

A total sample size of 146 trading and services public listed companies were analysed and the breakdowns of auditor firms engaged by the trading and services public listed companies during year 2008 to year 2012 is indicated in Table 1, which comprised of Pricewaterhousecoopers, Ernst & Young, KPMG, Deloitte and the remaining audit firms were grouped under 'Others'. The majority of the companies chose Ernst & Young as their external auditors with a total of 212 times during the same duration. The remaining companies employ other non-Big 4 audit firms to audit their companies and sum up to 351 times within the same period. Among the Big 4 accounting firms, Ernst & Young appeared as the most commonly chosen audit firm to perform audits for the trading and services public listed companies.

Table 1: Breakdowns of Auditor Firms

Audit Firms	Registration Number	2008	2009	2010	2011	2012	Total
Pricewaterhousecoopers	AF1146	16	16	16	14	13	75
Ernst & Young	AF0039	46	44	44	42	36	212
KPMG	AF0758	13	14	13	14	15	69
Deloitte Kassimchan	AF0080	6	4	4	4	5	23
Others		65	68	69	72	77	351
Total		146	146	146	146	146	730

The result analysis in Table 2 has shown that 91 out of 146 companies (62.33%) do not switch auditor between years 2008 to 2012. However, there are 51 out of 146 companies (34.93%) have switched auditor once and the remaining 4 companies (2.74%) have switched auditor for twice within that 5 year period.

Table 2: Frequency of Auditor Switching

DV_FOAS	Frequency	Percentage (%)
0	91	62.33
1	51	34.93
2	4	2.74

Multiple Regression Analysis in Table 3 shows that the p-value of < 0.0001 is less than 0.05, suggested that the model is statically significant (Hair, Black, Babin, Anderson & Tatham., 2005). The fitness of the model employed in this study can be assured and confirmed, as the F test statistics produced (F=32. 26) was more than the F value ($F_{0.05}$=2.21). Hence, there is a statistically significant relationship between all the independent variables and dependent variable in the model employed in this study. The adjusted R^2 indicates that 51.87% of the variability of the frequency of auditor switching is

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

370

accounted for by the model, after taking into account the number of predictor variables in the model. In short, the model is averagely suitable to be used to predict variation.

As all the p-value for AVE_LOR (p<0.0001), AVE_OC (p=0.0021), AVE_AF (p=0.0097), and AVE_GC (p=0.0004) are all less than 0.05 except for AVE_LOC (p=0.2468), hence these variables are significant to DV_FOAS. DV_FOAS is expected to be increased by 0.03502, 0.10310, 0.22813, 0.21279 and 0.34181 when AVE_LOC, AVE_LOR, AVE_OC, AVE_AF and AVE_GC are increased by 1 unit individually. AVE_GC has the greatest influence on DV_FOAS, followed by AVE_OC, AVE_AF, AVE_LOR and finally AVE_LOC. According to Garson (2008), the rule of thumb for multicollinearity problems happened when tolerance was less than 0.2 and variance-inflation factor (VIF) was higher than 4.0. Based on the multicollinearity statistic in Table 3, there was no indication of the multicollinearity problem as the tolerance and VIF for AVE_LOC, AVE_LOR, AVE_OC, AVE_AF and AVE_GC were greater than 0.2 and lesser than 4.0 respectively.

Table 3: Multiple Regression Analysis

Model	Anova		Adj. R²	Para. Estimate	Std. Estimate	t	P value	Tolerance	VIF
	F	P*							
Constant	32.36	<.0001	0.5187	-0.19238	0	-2.58	0.0108		
AVE_LOC				0.03502	0.08333	1.16	0.2468	0.64654	1.54670
AVE_LOR				0.10310	0.27694	4.40	<.0001	0.83912	1.19172
AVE_OC				0.22813	0.20241	3.14	0.0021	0.79902	1.25153
AVE_AF				0.21279	0.19479	2.62	0.0097	0.60139	1.66280
AVE_GC				0.34181	0.28253	3.60	0.0004	0.53951	1.85353

Conclusion

The findings on the determinants of auditor switching between Malaysia public listed T&S companies is able to shed light on how management and investors could prevent potential problems of auditor switching in the future. This research could enlighten companies on the factors that contribute to auditors switching in the early stage and thus, minimizes the possibility of auditors switching and maximizes the confidence level of financial statement users by enhancing auditor independence. This study helps to improve firms' corporate governance and audit monitoring to strengthen the credibility of corporate reporting. The findings suggest that regulators' surveillance over the behaviour of controlling shareholders should be enhanced to avoid the overriding power of controlling shareholders in influencing the auditor choices in preparing the financial report. With stronger regulation, possible expropriation of the minority shareholders' interests could be avoided.

Future studies are recommended to further extend their model to include the qualitative variable such as direction and type of switching. With this extension, the direction and type of switching may enlighten the users of financial users in relying on the works of auditors as well as in determining the reasons behind such switching.

References

Abubakar, H. L. (2010). *The impact of corporate governance on the productivity of a firm.* Unpublished Manuscript, Nasarawa State University, Keffi.

Bagherpour, M. A. & Monroe, G.S. (2007). *Auditor Switches and Emerging Markets : The Case of Iran.* Unpublisehd manuscript, Australian National University, Canberra, Australia.

Boon, K., McKinnon, J., & Ross, P. (2007). Factors Associated with the Choice of a Quality Auditor when Audit Tendering is Compulsory. *Accounting and Business Research, 31*(2), 133-144.

Calderon, T. G., & Ofobike, E. (2008). Determinants of client-initiated and auditor-initiated auditor changes. *Managerial Auditing Journal*, *23*(1), 4-25.

Chadegani, A. A., Mohamed, Z. M., & Jari, A. (2011). *International Conference on Sociality and Economics Development*: *The Determinant Factors of Auditor Switch among Companies Listed on Tehran Stock Exchange, Singapore, 2011.* IACSIT Press, International Research Journal of Finance and Economics.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

371

Chen, Y. (2007). *Finance difficulties, corporate governance, and auditor switching.* Unpublished Master's Paper, Hunan University, China, 23-25.

Eisenhardt, K. (1989). Agency Theory: An assessment and review. *Academy of Management Review,* 14(1), 57-74.

Fan, J.P.H., &Wong, T.J. (2005). Do External Auditors Perform a Corporate Governance Role in Emerging Market? Evidence from East Asia. *Journal of Accounting Research,* 43(1), 35-72

Fontaine, R., & Letaifa, S. B. (2012). *The reasons clients change audit firms and the client's perceived value of the audit service: A Qualitative Study.* Unpublished manuscipt, University du Quebec a Montreal.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2005). *Multivariate data analysis* (6ᵗʰ ed.). Englewood Cliffs, NJ: Pearson Prentice-Hall.

Hennes, K. M., Leone, A. J., & Miller, B. P. (2010). *Accounting Restatements and Auditor Accountability.* Unpublished manuscript, University of Oklahoma, United State.

Huson, J., Shamsher, M., Mohd, A. & Annuar, M.N. (2000). Audit switch decisions of Malaysian listed firms: test of determinants of wealth effect. *Capital Market Review*, 8, 1-24.

Imhofff, E.A. (2003). Accounting Quality, Auditing and Corporate Governance. *Accounting Horizons*, 17, 117-128.

Ismail, S., Huson, J.A., Md Nassir, A. & Abdul Hamid, M.A. (2008). Why Malaysian second board companies switch auditors: evidence of Bursa Malaysia. *International Research Journal of Finance and Economics*, 13(13), 123-30.

Jackson, A.B., Moldrich, M., & Roebuck, P. (2008). Mandatory audit firm rotation and audit quality*. Managerial Auditing Journal*, *23*(5), 420-437.

Lin, Z. J., & Liu, M. (2009). The Determinants of Auditor Switching from the Perspective of Corporate Governance in China. *Corporate Governance*: *An International Review*, *17* (4), 476-491.

Ming, L. (2007). *Corporate Governance, Auditor Choice and Auditor Switch: Evidence from China*. Unpublished master's thesis, Hong Kong Baptist University, Hong Kong.

Ministry of International Trade and Industry. (2012). *Contribution of Service to Gross Dosmetic Product (GDP).* Retrieved on August 5, 2013 from http://myservices.miti.gov.my/documents/10180/0/Investment%20In%20Services%20Sector%20In%20Malaysia?version=1.3&t=1365562704000

Nazri, S.N., Smith, M., & Ismail, Z. (2012). Factors influencing auditor change: Evidence from Malaysia, *Asian Review of Accounting*, *20* (3), 222-24.

Oladele, K. O. (2007). Auditor's Independence and Accountability in Nigeria Publicenterprises: A Case of the Nigerian Ports Authority. *KASU Journal of Management Sciences,* 1(4).

Okolie, A. O. (2007). Auditor's reappointment and its impact on audit independence. *The Nigerian Accountant*, 40(4).

Ruano, S., & Salas, V. (2004). *Accounting Based Measures of Risk in Non Financial Firms*. Unpublished Manuscript, Banco de Espana, Espanol.

Sikka, P. (2009). Financial Crisis and the Silence of Auditors*. Accounting, Organizations and Society*, 34(6/7), 868-873.

Suyono, E., Yi, F., & Riswan. (2013). *Determinant Factors Affecting the Auditor Switching:An Indonesian Case*. Paper presented at Proceedings of 3rd Asia-Pacific Business Research Conference, Kuala Lumpur, 25-26 February. Australia: World Business Institute Australia.

Turner, L.E., Williams, J.P. & Weirich, T.R. (2005). An inside look at auditor changes. *The CPA Journal*, *75*(11), 12-21.

Vanstraelen, A. (2000). Going-Concern Opinions, Auditor Switching, and the Self-Fulfiiling Prophecy Effect Examined in the Regulatory Context of Belgium. *Journal Of Accounting,* 231-235.

Wan Mohamed. W.A., Hussain. W.S., & Mohd Rodzi. N.K. (2007). *Characteristics' of companies that change and do not change and do not change auditor- an empirical investigation of Malaysian public listed companies.* Unpublished manuscript, University of Teknology MARA, Shah Alam, Malaysia.

Woo, E. S., & Koh, H. C. (2001). Factors associated with auditor changes: A Singapore study. *Accounting and Business Research*, 31, 133-144.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
UniversitiTunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

372

Zhang, Y., Cheng ,W., & Ren, J.Z. (2013). Auditor Switching by Corporate Governance: Empirical Analysis From the Listed Company in China. *Journal of Modern Accounting and Auditing*, *9*(2), 230-238.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

373

Enhancing performance outcomes of proactive corporate environmental strategies through organizational innovation

Lee Ah Suat
(leeas@utar.edu.my)

Department of Commerce and Accountancy, Faculty of Business and Finance,UniversitiTunku Abdul Rahman,Perak Campus,31900 Kampar,Malaysia.

Associate Professor Dr. OngTze San
(tzesan@econ.upm.edu.my)

Department of Accounting and Finance, Faculty of Economics and Management, Universiti Putra Malaysia 43400 Serdang, Selangor.

ABSTRACT

Firms are increasingly adopting proactive environmental strategies to manage its interaction with the natural environment, motivated by the potential to leverage on environmental management issues for creation of competitive advantage. Despite the claim that "it pays to be green" in the existing environmental management literature, findings from research surveys conducted on a global basis indicates that only about one third of the environmentally proactive firms are able to improve its financial performance. Hence, firms are not clear about the effects of pro-environmental sustainability investment on their financial performance. Existing literature has focused on examining the relationship between proactive corporate environmental strategies and firm performance, rather than on how the association between firm's proactive environmental approaches facilitates the creation of organizational capabilities, that would eventually contributes to improved firm performance. Underpinned by the natural resource based theory, this conceptual paper presents the relationship between proactive corporate environmental strategies, organizational innovation and firm performance. In particular; the mediating effects of various dimensions of organizational innovation including: product innovation, process innovation, management innovation, on the relationship between proactive corporate environmental strategies and firm performance are established.

KEY WORDS

Proactive environmental strategies, product innovation, process innovation, management innovation, organizational capabilities, firm performance, the natural resource-based theory

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

374

Do the Human and Social Capital of Board of Directors matter in a Tourism Crisis Period: Evidence from Asian Tourism Industry

Chai-Aun Ooi[a], Chee-Wooi Hooy[b], Ahmad Puad Mat Som[c]

[a]*School of Management, Universiti Sains Malaysia Emali: wilson.usmfinance@gmail.com*

[b] *School of Management, Universiti Sains Malaysia Emali: cwhooy@usm.my*

[c] *School of Housing, Building and Planning, Universiti Sains Malaysia Emali: puad@usm.my*

Abstract

The recognition of the negative impact of a crisis on tourism firm performance has been established in the literature. This paper further investigates the implication of board diversity in human capital (educational background and working experience) and social capital (external network ties via interlocking directorates) towards the relationship between crises and firm performance. Cross sectional time series data from 85 tourism firms across four Asian countries, namely China, Hong Kong, Malaysia and Singapore are investigated, from 2001-2011. Sudden and gradual occurrence types of crises are classified. We find that adopting greater board diversity in external network ties shows significant positive implication towards the relationship between gradual occurrence type of crises and firm performance. Instead, adopting greater board diversity in working experience shows significant negative implications towards sudden and gradual occurrence types of crises and firm performance. The implication of board diversity in educational background is found insignificant. Subsample regressions further reveal the optimal extent of board diversity in human and social capital to cope with the crisis effectively.

Keywords**:** Board of Directors; Crises; Diversity; Performance; Tourism

Introduction

The tourism industry is susceptible to a wide range of external crises such as natural disasters, disease outbreaks, terrorism, war as well as economic/financial crisis. Previous empirical studies have provided the evidence showing a negative relationship between crises and tourism demand. Following the decline in tourism demand during the crisis period, the performance of tourism firms has been adversely affected, as shown by the studies of Chen (2007a; 2011). In fact, a crisis may not merely affect the earning sales of tourism firms, but it could also endanger the firms' future growth opportunity in the long run. It is because crisis may influence the perception of the stakeholders upon the ability of the firms to protect their benefits in the turbulence. Firms with inefficient crisis management may constitute to the decline of shareholders' confidence to invest in the firms. It could increase the difficulty of the firms to search for financing in the future. In this case, how do tourism firms react to confide the shareholders for the worthiness of investing in the firms even though tourism industry is susceptible to a wide range of crises?

We claim that enhancing the quality of the board of directors could mitigate the negative impacts of crises on firm performance. According to resource dependent theory (RDT), the board of directors may act as a resource provider in an organization. With the directors' human and social capital, they can provide the resources in the form of legitimacy, advice and counsel, preferential access to resources, as well as access to channels of information between the firm and the contingency environment (Boyd, 1990; Gales &Kesner, 1994; Hillman, *et al.*, 2000). In fact, RDT has shed light on the importance of the board's

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

375

human and social capital in an organization, which give rise to the worthiness of the research. It is believed that the human and social capital of the board of directors is able to enhance the firms' competitive advantages at the time of crisis by which the demand for tourism products declines. Herein, this study investigates the implication of board diversity in human capital and social capital towards the relationship between crises and firm performance. In this study, human capital is represented by educational background and working experience, and social capital is represented by the external network ties via interlocking directorates.

This study classifies crises by its gestation period to occur, as discussed in Seymour and Moore (2000)[16]. Terrorism and natural disasters are said to have shorter gestation periods to occur, or in other words, it occurs in sudden and immediate; war and disease outbreaks are said to have longer gestation periods to occur, or in other words, it occurs gradually. One may argue that the function of the board diversity could have different implications towards the impact of individual type of crises on firm performance. It is because, on the one hand, greater board diversity could provide a wider range of alternatives to enhance the quality of the strategic setting within shorter period of time, which should be significant to cope with sudden occurrence type of crises; on the other hand, the diversified suggestions provided from different area of expertise could delay the decision making process as it takes longer time to compromise for a consensus, and it is argued that greater board diversity is only significant to cope with gradual occurrence type of crises. The unknown of the influence of the board diversity on the relationship between crises and firm performance support the worthiness of this study.

The findings of this study make several contributions to the tourism literature. It suggests that board diversity in human and social capital is a matter to influence firm performance during a crisis period. Tourism firms are required to set up a crisis management committee specifically tackling the crises. In the present, seldom tourism firms are found to set up the crisis management committee in the boardroom, besides of the committees like audit committee, remuneration committee and nomination committee. The establishment of the crisis management committee is intended to control over the extent of board diversity in human capital and social capital when making decisions to respond towards crises. Our findings suggest that regulation on the board diversity in human capital and social capital is important to prevent deterioration firm performance during the crisis period, as well as to mitigate the negative impact of crises on the performance of tourism firms. Although tourism demand is increasing over years, the growth of tourism industry may be slowed down due to the increasing of the frequency of crises in the recent years as demonstrated by Hall (2010). Herein, regulating board diversity in tourism firms could be one of the alternatives to confide the shareholders upon their investment in tourism firms.

Crisis and the Role of Board of Directors

The development of the tourism sector has always been challenged by numerous external crises, either it is in the form of natural disasters such as tsunami and earthquake, disease outbreaks or human-caused crises such as war and terrorism. Chen (2011), Chen et al. (2005) and Chen (2007a; 2007c) provide empirical evidences demonstrating that the decline in tourist arrivals during a crisis period has negatively affected the performance of tourism firms. Drakos (2004) also finds that 9/11 terrorism has brought significant negative impacts on the airline industries, including the increasing of systematic risk of airline stocks after the crisis event. The crisis leads to the U.S. airlines firms to face a bigger challenge in raising capital for advanced development. Chen (2011) explains that tourists are reluctant to travel during the crisis period for their personal safety, which causes the decreasing of profitability in the tourism industry. The decline in earnings has led to the adoption of discount on the firm's stock return due to the plunge of expected cash flow over the crisis period, eventually constitute to the poor firm performance.

Other than the empirical evidences showing the negative impacts of crises on firm performance, the annual reports of the tourism firms also document the loss of the firm during the crisis period. For instance, Pulai Spring Berhad in the hospitality industry in Malaysia has suffered a loss in operating

---

[16] Seymour and Moore (2000) classify crises into two categories according to its gestation period to occur: *cobra* type of crisis and *python* type of crisis. The former occurs in sudden and unexpected while the latter occurs gradually.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

376

income from RM53 million to RM45 million due to a drastic drop in resort operations income as a direct result of the SARS epidemic. China Travel International Investment Hong Kong Limited also has suffered a decrease in net asset value of 0.2% as the result of 2009 swine flu disease outbreaks. According to Cathay Pacific Airways Limited in Hong Kong, the passenger yield has been declining from HK48.2 cents to H45.7 cents following the 911 terrorist attacks in the United States in the year 2001.

The past crisis events have revealed how tourism firms react towards the challenges. For instance, Singapore Airlines Limited takes several actions against the outbreaks of SARS disease in 2003, such as working closely with the Civil Aviation Authority of Singapore and the Singapore Ministry of Health, as well as closely following up with the World Health Organization (WHO) upon the safety measures to guard against the SARS virus. It is believed that Lim Boon Heng, one of the board of directors in the firm, who is also the Minister in Prime Minister's Office in Singapore at that time, has successfully utilized his social networking advantages to link the firm with the government or main authorities concerned. The board in Food Juntions Holdings Limited instead proposes a dividend of 25% per ordinary share less tax at 22 percent, amounting to approximately S$1.9 million for the Financial Year of 2003, with the intention to reward the shareholders for their confidence in the firm despite the impact of SARS outbreaks. Contradictory, the board from China Travel International Investment Hong Kong Limited does not recommend the payment of dividend in 2009, the year of swine flu disease outbreaks which has caused the decrease in the net asset value of the firm. With respect to the 2008 economic crisis, the board of directors in Huatian Hotel Group Company Limited personally provides workshops to the managing executives and the other staffs so that to enhance the quality of management as well as the quality of the services providing to the customers. The measure aims to sustain the firm performance during the turbulence. Also, following the economic crisis, the board of directors in Skywest Airlines Limited, Singapore, immediately initiates major changes to the structure and senior management of the company and shift the strategic focus of the firm from high growth pursuit to one of fiscal conservatism as a consequence of the global financial crisis. All of these evidences obtained in annual report of individual firm indicate the important role played by the board during a crisis period.

Shareholders are very concerned about the board's quality and structure when the firms suffer from an unexpected crisis (Leung and Hortwiz, 2010). Francis *et al*. (2012) show that firms with poorer board quality are likely to suffer extensive loss during financial crisis period, while Brauer and Schmidt (2008) instead demonstrate that competent board could improve firm performance in a turbulent circumstance. The findings of the empirical studies have coincided with the definition of Mace (1971) upon the function of boards as "a source of advice and counsel, serve as some sort of discipline device, and act in *CRISIS* situations". This has implied that the quality of the board of directors are particularly important with respect to a crisis situation.

Fiol (1994) claims that studying on the board diversity should take into account of the firm business environment. It is supported by the other study like Schneider and Angelmar (1993) suggesting that adopting greater board diversity is only effective for decision making in the complex environments. Similarly, Walsh *et al*. (1998) also document that a wide range of perspectives and views which could be provided by a great board diversity is effective to cope with an uncertain issue. Also, the findings of Carpenter and Westphal (2001) suggest that adopting greater board diversity in social capital is more preferable during an unstable environment. These may be due to the essence of innovation to cope with the crisis or complex issue effectively, and in that case, greater board diversity could help to improve the innovative performance of a firm (Wincent et al., 2010). The innovation is critical for a firm to seize the competitive advantages in the market when the environment is unstable. With that, the influence of board diversity in human capital and social capital could cast the investors' attention and reflect in the stock prices[17].

Data and Methodology

---

[17] Empirical evidences provided by Wincent et al. (2010) demonstrating that board diversity in human capital and social capital could improve firms' innovative performance significantly.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

377

The names of tourism firms are extracted from Osiris-Bureau van Dijk database according to the NACE Rev. 2 industrial codes given by UNWTO. Tourism firms from Malaysia, Singapore, Hong Kong and China are selected. There are a total of 85 firms. The period of study is from the year 2001 to 2011. Time series (yearly) data for firm fundamental variables is collected from DataStream, a division of Thomson Financial. Time series (yearly) board-related data are collected from individual firms' annual reports. Five crisis events are selected, namely 2001 U.S. 9/11 terrorism, 2003 SARS outbreaks, 2005 Bali bombings, 2008 financial downturn and 2009 H1N1 outbreaks. The nature of the crises in terms of its gestation period to occur for the corresponding crisis event is stated in Table 1 according to Maditinos & Vassiliadis (2008).

Table 1 Tourism Crisis Events from 2000-2010 and its corresponding Crisis Typologies

Year	Crisis events	Gestation Period to Occur
2001	U.S. 911 terrorism	Short
2003	SARS outbreaks	Long
2005	Bali Bombings	Short
2008	Financial crisis	Long
2009	H1N1 outbreaks	Long

Model Specification

Equation (1) shows the baseline model. Two crisis dummy variables are incorporated in the model, one with the crisis events which occur in sudden or having a shorter gestation period to occur; another one with the crisis events which occur gradually, or having a longer gestation period to occur. Panel regression with firm fixed effect specification is applied to the model. We further adjust the standard errors for correlations across the four economies through clustering approach.

$$FirmPerformance_{it} = \beta_0 + \beta_1 FirmSize_{it} + \beta_2 Leverage_{it} + \beta_3 FirmGrowth_{it} + \beta_4 Capex_{it}$$
$$+ \beta_5 IndepBoard_{it} + \beta_6 BoardOwnership_{it} + \beta_7 BoardMeeting_{it} + \beta_8 Crisis_{ShortGestation_{it}}$$
$$+ \beta_9 Crisis_{LongGestation_{it}} + \beta_{10} DFirm_{it} + \varepsilon_{it} \tag{1}$$

The firm's stock return is used as the proxy for firm performance. $FirmSize_{it}$ is measured by the natural logarithm of total assets of firm i at year t; $Leverage_{it}$ is measured by the ratio of long-term debts to total assets of firm i at year t; $Firm\ Growth_{it}$ is measured by market-to-book value of firm i at year t, and $Capex_{it}$ is represented by the total capital expenditure of firm i at year t. $IndepBoard_{it}$ represents for the composition of an independent board of directors of firm i at year t, which is measured by the ratio of independent board and total board size; $BoardOwnership_{it}$ is measured by total board ownership of firm i at year t, and $BoardMeeting_{it}$ is measured by the number of board meetings of firm i at year t. $Crisis_{Sudden}$ and $Crisis_{Gradual}$ are the dummy variables denoting 1 for the years of crises with the corresponding nature of gestation period to occur, and 0 otherwise.

To investigate whether board diversity in human capital and social capital could have implications towards the relationship between crises and firm performance, interaction terms comprising of the multiplication of crisis variable ($Crisis_{Sudden}/Crisis_{Gradual}$) and the board diversity variable (*Board diversity in educational background / Board diversity in working experience / Board diversity in External Network Ties*) are further incorporated in the model (1). If significant relationship found between firm performance and the interaction terms, we would say that the board diversity implies a significant link to the relationship between crises and firm performance.

Measuring the Board Diversity Variables

This study follows Gibbs and Martin (1962) in measuring board diversity index. In general, Gibbs and Martin diversity index is defined as:

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

378

$$1 - \sum_{i=1}^{n} p_i{}^2$$

where $p_i{}^2$ is the proportion of a board in group i. The higher the diversity index, the more diversified of the subject. The maximum value of the diversity index is 1, implying 100 percent diversification, while the minimum value is 0, implying no diversification at all.

The board's educational background is categorized into seven groups, namely business and economics, law, liberal arts and social sciences, basic science and engineering, medical and pharmacy, military, and lastly, arts and physical education. Individual director belonging to either of the categories would be counted, and the overall board diversity in educational background is then measured using Gibbs and Martin approach. Also, the board's working experience is categorized into eight groups, namely government, domestic and foreign financial, tourism related related activities, accountant, professor, organization member, attorney, and lastly, media and research institute. Similarly, the number of 2-digit SIC codes of the firms attached by the board in firm i via interlocking directorates are counted and measured using Gibbs and Martin's approach.

Descriptive Statistics

Table 2.0 presents the descriptive statistics of the variables used in this study. The average stock return is 0.0335, by which the positive value indicates that the performance of tourism firms in Asia is still satisfying the investors. The average market-to-book value demonstrates positive value, i.e. 2.54, suggesting that investors are positive towards the future growth opportunity of the Asian tourism firms. Descriptive statistics further show that tourism firms adopt high board diversity in working experience in average, i.e. about 72 percent. The board diversity in external network ties and educational background are about 67 and 50 percent respectively. The minimum value of board diversity in educational background and external network ties are zero, denoting that there are firms having homogeneous/undiversified board's human capital and social capital. The homogeneous board's educational background is found referring to the study field of business and economics. Also, the maximum value of board diversity in external network ties is close to 100 percent, which indicates that there are firms having completely diversified nature of external network ties.

Table 2 Descriptive Statistics

	Mean	Median	Std. Dev.	Min	Max
Stock returns	0.0335	0.0014	0.4679	-1.1595	1.4318
Firm size	14.4544	14.3084	1.8411	10.0702	18.6675
Leverage	28.8328	24.5700	23.9003	0.0000	111.5900
Market-to-book value	2.5363	1.6700	2.9651	-3.5200	17.6000
Capital expenditure	10.7314	10.7207	2.3522	5.2040	15.9317
Ratio of outside board to total board size	0.3526	0.3333	0.0202	0.3333	0.3750
Board Ownership (%)	14.8095	0.0269	24.4939	0.0000	80.0475
Board size	9.3769	9.0000	2.9823	4.0000	26.0000
Frequency of board meeting	7.0176	6.0000	3.6460	2.0000	26.0000
Diversity in board's educational background	0.5002	0.5185	0.1821	0.0000	0.8368
Diversity in the area of board's working experience	0.7219	0.7347	0.0727	0.4898	0.8367
Diversity in board's external network ties	0.6661	0.7342	0.2610	0.0000	0.9546

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

379

5.2 Results Discussion

Column (1) in Table 3 presents the regression results of the baseline model. Firm size is found to have no significant relationship with firm performance. The capital expenditures, however, show significant negative relationship with firm performance, implying that the capital expenditures of tourism firms do not bring desire returns to the tourism firms. However, significant positive relationship between market-to-book value and firm performance found indicates that the future growth opportunities of the Asian tourism firms are still positive. We find that board size is not significantly related to firm performance. It implies that increasing the board's human capital and social capital does not benefit firm performance, instead, it leads to the significance of emphasizing on board diversity in human capital and social capital. The results further show that only gradual occurrence type of crises is significantly and negatively related to firm performance. Sudden occurrence type of crises instead does not significantly affect firm performance. The results are logical in the sense that the duration between the period of the sudden occurrence type of crises is shorter, and tourism demand would rebound back immediately after the crisis[18]. This explains why our yearly data used in this study could not capture significant negative effect of the crises on firm performance. In short, the results from the baseline model reveal that the gradual occurrence type of crises is the main challenge for the sustainability of tourism firms.

Further results show that board diversity in educational background, working experience and external network ties does not significantly improve firm performance, when controlling for the crises in the model. This implies that under the stable environment without crisis, the influence of the board diversity is less likely to be perceived by investors. Instead, our results show that investors tend to emphasize on the board shareholding and the composition of outside directors when the environment is stable. The issues of board ownership and independent board of directors which could lead to the agency problems is the main concern of investors. In short, our results indicate that board's human capital and social capital are less significant to influence firm performance in the stable environment.

Table 4 presents the implications of board diversity in human capital and social capital towards the relationship between crises and firm performance. We find that board diversity in educational background does not have significant influence towards the impacts of crises on firm performance. In contrast, board diversity in working experience has significant negative implication to the relationship between sudden and gradual occurrence types of crises and firm performance. This implies that increasing the board diversity in working experience significantly deteriorates the negative impacts of crises on firm performance. This is consistent with Maznevski (1994) denoting that diverse suggestions and advice provided by the board comprising of different area of expertise could lead to the difficulty in making a decisive conclusion during the board meeting. With that, it hampers the management team to operate cohesively. Furthermore, disorganization and miscommunication problems may be rising, constituting to the inefficiency of the managing activities (Jackson, May and Whitney, 1995). Even, we find that the magnitude of the negative implication towards the impact of the sudden occurrence type of crises is larger relative to the gradual occurrence type of crises. The results give us the notion that high board diversity in working experience hinders the production of immediate strategies to cope with crises, and may even create chaos which delays the process of decision making during the critical period when immediate strategies are needed, particularly in the sudden occurrence type of crisis. It has constituted the greater loss for failing in seizing the competitive advantages in the market. In overall, the results demonstrate that diversified board's working experience could deteriorate the negative impacts of crises towards firm performance, especially for the crises which occur in sudden.

In opposite, we find that board diversity in external network ties has a positive implication towards the relationship between crises and firm performance. In other words, increasing board diversity in external network ties could mitigate the negative impacts of crises on firm performance. This implies that diversified board's external network ties could strengthen the firms' abilities in managing a crisis. However, the significant positive effect found is only restricted to the gradual occurrence type of crisis. The finding is supported by the studies of Carpenter and Westphal (2001) and Wincent et al. (2010) documenting that

---

[18] Lean and Smyth (2009) demonstrate that the effect of crisis towards tourism demand is merely transitory, where the declines in tourism demand would rebound back immediately after the crisis.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

380

board's strategically heterogeneous network ties could provide a wider range of alternatives as well as enhance its innovative performance for solving complicated troubles or unstable circumstances. Nevertheless, the results imply that the advantage of board diversity in external network ties could only effectively mitigate the negative impacts of crises in the condition that the board is given sufficient time to find a consensus on the diversified points of view shared in the meeting.

Table 3 Regression results on the baseline model

	(1)	(1a)	(1b)	(1c)
Constant	-2.3513**	-2.6709***	-2.6460***	-2.2439**
	(0.0397)	(0.0027)	(0.0034)	(0.0160)
Firm size	0.0892	0.0865	0.0898	0.0858
	(0.1080)	(0.1309)	(0.1108)	(0.1844)
Leverage	0.0027*	0.0028	0.0028	0.0019
	(0.0908)	(0.1102)	(0.1222)	(0.4407)
Market-to-book	0.0577***	0.0572***	0.0573***	0.0650***
	(0.0000)	(0.0000)	(0.0000)	(0.0010)
Capex	-0.0229*	-0.0216	-0.0227	-0.0197
	(0.0634)	(0.1403)	(0.1197)	(0.2002)
Board size	-0.0779	-0.0555	-0.0628	-0.1368
	(0.4617)	(0.6138)	(0.5719)	(0.2508)
Outside board	3.6217***	3.3338***	3.3179***	2.7719**
	(0.0032)	(0.0092)	(0.0091)	(0.0360)
Board shareholding	0.0055***	0.0053***	0.0055***	0.0053***
	(0.0000)	(0.0068)	(0.0055)	(0.0088)
Board meeting	0.061	0.0735	0.0742	0.0748
	(0.3340)	(0.2544)	(0.2630)	(0.2526)
Crisis$_{sudden}$	-0.087	-0.0967*	-0.0935*	-0.0833
	(0.2630)	(0.0641)	(0.0715)	(0.1200)
Crisis$_{gradual}$	-0.3437***	-0.3491***	-0.3453***	-0.3472***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Diversity in board's educational background		0.1553		
		(0.3302)		
Diversity in board's working experience			0.0290	
			(0.9392)	
Diversity in board's external network ties				0.0692
				(0.5176)
Number of Observations	655	642	650	623
R^2	0.2348	0.1343	0.1311	0.1385

*** is significant at 1 percent level; ** is significant at 5 percent level; * is significant at 10 percent level.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

381

Table 4 Regression results on the moderating effect of the board diversity towards the impact of crisis on firm performance

	(1)	(2)	(3)
Constant	-2.7257***	-2.9625***	-2.1951**
	(0.0022)	(0.0010)	(0.0193)
Firm size	0.0877	0.0915	0.0847
	(0.1248)	(0.1001)	(0.1943)
Leverage	0.0029	0.0029	0.002
	(0.1107)	(0.1141)	(0.4060)
Market-to-book	0.0572***	0.0561***	0.0649***
	(0.0000)	(0.0000)	(0.0010)
Capex	-0.0209	-0.022	-0.0207
	(0.1491)	(0.1284)	(0.1721)
Board size	-0.0546	-0.0548	-0.123
	(0.6253)	(0.6223)	(0.2992)
Outside board	3.2582**	3.3966***	2.7943**
	(0.0106)	(0.0079)	(0.0347)
Board shareholding	0.0055***	0.0054***	0.0054**
	(0.0065)	(0.0052)	(0.0105)
Board meeting	0.0756	0.0713	0.071
	(0.2349)	(0.2790)	(0.2857)
$Crisis_{sudden}$	-0.0282	0.8113**	-0.1866*
	(0.7992)	(0.0424)	(0.0736)
$Crisis_{gradual}$	-0.1932**	0.2415	-0.5035***
	(0.0309)	(0.4077)	(0.0000)
Diversity in board's educational background	0.2714		
	(0.1758)		
Diversity in board's working experience		0.3796	
		(0.3746)	
Diversity in board's external network ties			-0.0366
			(0.7598)
Diversity in board's educational background * $Crisis_{cobra}$	-0.1444		
	(0.5528)		
Diversity in board's educational background * $Crisis_{gradual}$	-0.3238		
	(0.1043)		
Diversity in board's working experience * $Crisis_{sudden}$		-1.2460**	
		(0.0226)	
Diversity in board's working experience * $Crisis_{gradual}$		-0.8091**	
		(0.0482)	
Diversity in board's external network ties * $Crisis_{sudden}$			0.1663
			(0.2946)
Diversity in board's external network ties * $Crisis_{gradual}$			0.2475***
			(0.0093)
Number of Observations	642	650	623
R^2	0.1359	0.1344	0.1418

We further conduct multivariate analysis by sub-sampling the firms into three categories, one having the diversity less than 0.3, another one having the diversity between 0.3 and 0.6 and the last one having the diversity more than 0.6. The subsample regression results are shown in Table 5. Although previous finding shows that diversity in board's educational background does not have significant effect towards the relationship between crises and firm performance, the subsample results in Table 5 further

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

382

give us the notion that increasing the diversity in board's educational background could have significant positive effect towards the impact of cobra type of crises on firm performance, in the condition that the extent of the diversity is within the range of 0.6. This indicates that moderate diversity in board's educational background could provide immediate solution/strategies for the firm to cope with sudden occurrence type of crisis. Moderate extent of the diversity could prevent the miscommunication problem arisen, and it is believed that the knowledge learned through official education is recognized and can be easily accepted by the other directors during the board meeting. Hence, it is somehow could facilitate the process of decision making in responding towards a crisis. In contrast, no matter in any range of the diversity, board's educational background still does not show significant effect towards the impact of gradual occurrence type of crisis on firm performance. It shows that when sufficient time is fairly given to all of the tourism firms to compete under the turbulence, the contribution from diversified board's educational background may not be effectively worked to improve firm performance as the knowledge from education is common and can be easily obtained. In this case, innovative strategies need to be implemented so that to be able to compete with the others in the unstable environment. This has explained why diversified board's external network ties could have greater positive effect on the relationship between gradual occurrence type of crisis and firm performance, relative to the context of sudden occurrence type of crisis. We further find that only too high of the diversity in board's working experience could deteriorate the negative impact of crises on firm performance. Instead, the extent of the diversity below 0.6 does not bring any significant implication on the relationship.

We find nonlinearities upon the effect of diversity in board's external network ties towards the relationship between crises and firm performance. On one hand, the results show that only low extent of diversity in board's external network ties, i.e. below 0.3 has significant positive effect towards the relationship; on the other hand, the results show that the diversity falling between 0.3 and 0.6 has significant negative effect on the relationship. This has given the notion that diversity in board's external network ties should be carefully regulated in low extent to prevent the opposite adverse effect towards firm performance during the crisis period. Again, the results highlight the larger magnitude upon the effect of the diversity towards the relationship between gradual occurrence type of crises and firm performance relative to the relationship between sudden occurrence type of crises and firm performance. Increasing the diversity above 0.6 does not have significant effect towards the impacts of crises on firm performance. In this case, we may say that the advantages of the diversity are exactly offset by the disadvantages of the diversity, and hence the influence of the diversity could not be plausibly seen. In other words, the diversified alternatives could improve the quality of the strategies set, but it has missed the best timing in implementing the strategy when crisis occurs.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

383

Table 7 Subsample regressions on different extent of board diversity in human and social capital

	Diversity in board's educational background (E)			Diversity in board's working experience (W)		Diversity in board's external network ties (N)		
	Edu < 0.3	0.3 <= E >0.6	E >= 0.6	W < 0.6	W >= 0.6	N < 0.3	0.3 <= N >0.6	N >= 0.6
Diversity in board's educational background	0.5826**	0.5999***	0.7106					
	(0.0118)	(0.0095)	(0.4784)					
Diversity in board's educational background * Crisis$_{sudden}$	0.5257***	1.6358***	-0.4246					
	(0.0000)	(0.0000)	(0.7946)					
Diversity in board's educational background * Crisis$_{gradual}$	-0.3327	-0.0611	-0.1599					
	(0.5716)	(0.9033)	(0.9049)					
Diversity in board's working experience				-4.0947	0.5894			
				(0.1491)	(0.2295)			
Diversity in board's working experience * Crisis$_{sudden}$				-3.9789	-1.9216*			
				(0.3681)	(0.0685)			
Diversity in board's working experience * Crisis$_{gradual}$				4.9837	-0.9892***			
				(0.4344)	(0.0002)			
Diversity in board's external network ties						-7.2869***	1.3189***	-0.1407
						(0.0000)	(0.0000)	(0.6953)
Diversity in board's external network ties * Crisis$_{sudden}$						1.3829***	-1.1885**	0.6206
						(0.0000)	(0.0373)	(0.3574)
Diversity in board's external network ties * Crisis$_{gradual}$						5.2740***	-3.7857***	-0.2138
						(0.0000)	(0.0000)	(0.4990)
Firm size	0.0777	0.1770***	-0.2832**	-0.1097	0.0911**	0.2146***	0.0766	0.0472
	(0.2602)	(0.0005)	(0.0420)	(0.7167)	(0.0421)	(0.0000)	(0.1305)	(0.5863)
Leverage	-0.0007	0.0056***	0.0042	-0.0023	0.0034*	-0.0027**	0.0003	0.0020
	(0.9219)	(0.0046)	(0.6461)	(0.4583)	(0.0723)	(0.0366)	(0.9039)	(0.2692)
Market-to-book	0.0326	0.0684***	0.0871***	0.2276***	0.0559***	0.2064***	0.0886***	0.0537***
	(0.1165)	(0.0000)	(0.0000)	(0.0033)	(0.0000)	(0.0000)	(0.0000)	(0.0001)
Capex	0.0319	-0.0453***	0.0129	-0.0366	-0.0318**	-0.0021	-0.0118	-0.0363***
	(0.3513)	(0.0017)	(0.8042)	(0.3995)	(0.0243)	(0.9027)	(0.5384)	(0.0021)
Board size	-0.1619***	-0.0194	0.0646	-0.0682	-0.0187	0.0849	-0.1671*	-0.0974
	(0.0019)	(0.9530)	(0.8021)	(0.8554)	(0.8503)	(0.6004)	(0.0843)	(0.5795)
Outside board	0.4306	8.7073***	2.3156	13.8796	3.7503**	1.5465***	6.8992***	1.6919***

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

384

	(0.6722)	(0.0000)	(0.2885)	(0.1071)	(0.0145)	(0.0000)	(0.0000)	(0.0002)
Board shareholding	0.004	0.0038***	0.0108**	-0.0521	0.0059***	0.0039	0.0164***	0.0046***
	(0.7105)	(0.0026)	(0.0431)	(0.3138)	(0.0000)	(0.7776)	(0.0000)	(0.0000)
Board meeting	0.0390	0.0433	0.1075	0.2214	0.0448	0.2458**	0.046	0.0366
	(0.7761)	(0.8126)	(0.4309)	(0.4451)	(0.4814)	(0.0246)	(0.4486)	(0.4787)
$Crisis_{sudden}$	0.0299	-0.8500***	0.001	2.0368	1.3135	0.0784*	0.4296**	-0.5344
	(0.6683)	(0.0002)	(0.9992)	(0.3825)	(0.1211)	(0.0637)	(0.0129)	(0.3558)
$Crisis_{gradual}$	-0.0985	-0.3497*	-0.2859	-2.9666	0.3765*	-0.4952***	1.4706***	-0.1347
	(0.1119)	(0.0965)	(0.7475)	(0.3810)	(0.0715)	(0.0000)	(0.0000)	(0.5068)
Constant	-1.1852***	-5.7797***	3.7028***	2.6167	-3.0233***	-4.1982***	-3.7675***	-0.7301
	(0.0000)	0.0001)	(0.0006)	(0.7850)	(0.0061)	(0.0001)	(0.0003)	(0.5367)
Observation	113	344	185	41	609	81	122	420
R^2	0.3394	0.3353	0.423	0.8461	0.2495	0.5911	0.4325	0.2336

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

385

6. Conclusion

This study classifies crises, in terms of its gestation period to occur, into sudden and gradual occurrence types of crises. The study further investigates the impact of individual type of crisis on tourism firm performance, where none of the studies conduct the research from this perspective. We find that the impact of gradual occurrence type of crises significantly influences firm performance, however, the impact of sudden occurrence type of crises is found insignificant. This is consistent with the study of Ahmad Puad et al. (2014) denoting that gradual occurrence type of crises has greater negative influence towards tourism demand than the sudden occurrence type of crises. The result is logical as the effect of the sudden occurrence type of crises has a shorter duration to be ended, compared to the effect of gradual occurrence type of crises which would be ended by taking a longer period of time and hence, could bring significant loss to the tourism firms. The findings indicate that tourism firms have to put more effort in tackling gradual occurrence type of crises. Nonetheless, the impact of sudden occurrence type of crises should not be neglected as the way of tourism firms handling the crisis to protect the shareholders' benefits could influence the perception of shareholders upon the worthiness of their investment in the firms, which would be reflected in the firms' stock returns.

By controlling the impacts of crises in the regression, we find that board diversity in educational background, working experience and external network ties do not significantly affect firm performance. In other words, the influences of the board diversity does not significantly affect firm performance in a stable environment. However, does board diversity with respect to human and social capital matter in crisis management? The findings of this study could add to the body of literature on the implication of board diversity on the relationship between firm performance and crises.

Our results indicate that board diversity in social and human capital significantly influences the relationship between crises and firm performance. The results further suggest that adopting moderate extent of board diversity in educational background, i.e. about 50 percent of diversification, has significant positive implication to the relationship between firm performance and sudden occurrence type of crises; adopting a great extent of board diversity in working experience, i.e. more than 50 percent of diversification, has significant negative implication to the relationships between firm performance and sudden and gradual occurrence types of crises. Adopting a low extent of board diversity in external network ties, i.e. not more than 30 percent of diversification, has significant positive implication to the relationship between sudden and gradual occurrence types of crises and firm performance, instead, it is found could backfire firm performance if greater board diversity is adopted.

The magnitude of the positive implication of board diversity in external network ties is relatively large compared to the influence of board diversity with respect to educational background. It is said that board diversity in social capital is more significant to alleviate the negative impact of crisis on firm performance, compared to the board's human capital. It is said that the resources/information obtained through the external network ties are more useful to exploit the competitive advantages in the market during the crisis period. The finding is consistent with Stevenson and Radin (2009) showing that board's social capital is more influential than board's human capital in a firm.

The findings suggest that tourism firms should establish a crisis management committee specifically tackling on a crisis. The committee members should be nominated upon the consideration of the diversities in board's human capital and social capital in the committee. The findings suggest that board composition of the crisis management committee should be controlled in moderate extent of diversity in board's educational background and lower extent of diversity in board's working experience and external network ties.

In short, our results could enhance the existing body of tourism literature by suggesting that diversities in board's human capital and social capital imply linkages towards the relationship between crisis and the performance of tourism firms. With the unavoidable crisis striking tourism industry, tourism firms could at least take the initiative to strengthen its ability to mitigate the negative impact of the crisis. Improving the board quality from the perspective of the diversities in board's human capital and social capital is found as one of the alternatives for sustainability of tourism firms in long run. This could however alleviate the worry of investors to inject their modal into tourism industry for profit seeking, hence sustain the growth of the global tourism sector in the future.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

386

Acknowledgement

Reference

Ahmat Puad, M. S., Ooi, C.A., Hooy, C. W. (2014). Crisis typologies and tourism demand, *An International of Tourism and Hospitality Research*. 25, 302-304.

Boyd, B. (1990). Corporate linkages and organizational environment: A test of the resource dependence model, *Strategic Management Journal*. 11, 419-430.

Brauer, M., Schimdt, S. (2008). Defying the strategic role of boards and measuring boards' effectiveness in strategy implementation, *Corporate Governance*, 8, 649-660.

Carpenter, M. A., Westphal, J. D. (2001). The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making, *Academy of Management Journal*. 4, 639-660.

Chen, M. H. (2007a). Hotel stock performance and monetary conditions, *International Journal of Hospitality Management*. 26, 588-602.

Chen, M. H. (2007c). Macro and non-macro explanatory factors of Chinese hotel stock returns, *International Journal of Hospitality Management*. 26, 991-1004.

Chen, M. H. (2011). The response of hotel performance to international tourism development and crisis events, *International Journal of Hospitality Management*. 30, 200-212.

Chen, M. H., Kim, W. G., Kim, H. J. (2005). The impact of macroeconomic and non-macroeconomic forces on hotel stock returns, *International Journal of Hospitality Management*. 24, 243-258.

Drakos, K. (2004). Terrorism-induced structural shifts in financial risk: airline stocks in the aftermath of the September 11th terror attacks, *European Journal of Political Economy*. 20, 435-446.

Fiol, C. M. (1994). Consensus, diversity, and learning in organizations, *Organization Science*. 5, 403-420.

Francis, B. B., Hasan, I., Wu, Q. (2012). Do corporate boards matter during the current financial crisis? *Review of Financial Economics*. 21, 39-52.

Gales, L., Kesner, I. (1994). An analysis of board of director size and composition in bankrupt organizations, *Journal of Business Research*. 30, 271-282.

Gibbs, J. P., Martin, W. T. (1962). Urbanization, technology and division of labor: International patterns, *American Sociological Review*. 27, 667-677.

Hall, C. M. (2010). Crisis events in tourism: subjects of crisis in tourism, *Current Issues in Tourism*. 13, 401 -417.

Hillman, A. J., Cannella, A. A., Paetzold, R. L. (2000). The resource dependence role of corporate directors: Strategic adaptation of board composition in response to environmental change, *Journal of Management Studies*. 37, 235-254.

Jackson, S. E., May, K. E., Whitney, K. (1995). Understanding the dynamics of diversity in decision making teams. In: Guzzo RA, Salas E, editors, Team Effectiveness and Decision Making in Organizations, San Francisco: Jossey-Bass, 204-261.

Lean, H. H., Smith, R. Asian financial crisis, avian flu and terrorist threats: Are shock to Malaysian tourist arrivals permanent or transitory? *Asia Pacific Journal of Tourism Research*. 14, 301-321.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

387

Leung, S. and Horwitz, B. (2010). Corporate governance and firm value during a financial crisis, Review of Quantitative Finance and Accounting. 34, 459-481.

Mace, M. L. (1971). Directors: Myth and reality. Boston: Harvard Business School Press.

Maditinos, Z., Vassiliadis, C. (2008). Crises and disasters in tourism industry: happen locally – affect globally, Mibes E-book, 67-76.

Maznevski, M. L. (1994). Understanding our differences: performance in decision-making groups with diverse members, *Human Relations*. 47, 531-552.

Schneider, S. C., Angelmar, R. (1993). Cognition in organizational analysis: Who's minding the store? *Organization Studies*. 14, 347-374.

Seymour, M., Moore, S. (2000). Effective Crisis Management: Worldwide Principles and Practice, Cassell: London.

Stevenson, W. B., Radin, R. F. (2009). Social capital and social influence on the board of directors. *Journal of Management Studies*. 46: 16-44.

Walsh, J. P., Henderson, C. M., Deighton, J. (1988). Negotiated belief structures and decision performance: an empirical investigation, *Organizational Behavior and Human Decision Processes*. 42, 194-216.

Wincent, J., Anokhin, S., Ortqvist, D. (2010). Does network board capital matter? A study of innovative performance in strategic SME networks, *Journal of Business Research*. 63, 265-275.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

388

Impact of E Banking Information System on Customer Loyalty in Malaysia

Zam Zuriyati Mohamad[a], M.Krishna Moorthy[b], Tengku Rahimah Tengku Arifin[c]

[a]Universiti Tunku Abdul Rahman, Malaysia, zuriyati@utar.edu.my
[b]Universiti Tunku Abdul Rahman, Malaysia, krishnam@utar.edu.my
[c]Universiti Tunku Abdul Rahman, Malaysia, rahimah@utar.edu.my

Abstract

Despite the increasing number of e banking subscribers in Malaysia, the usage rate of e banking is decreasing. As such, the customer's satisfaction on the e banking system was being questioned. In this regard, the proposed study intends to examine the effect of e banking information systems on customer satisfaction. In addition, it also aims to investigate the effect of customer satisfaction on customer loyalty. DeLone and McLean Information Systems Success Model which was updated in year 2002 will be applied as the theoretical framework for this study. This theoretical paper would aim to determine the factors that influence the customer satisfaction and in turn the customer loyalty towards e banking information systems. A research model will be developed to be tested with the e banking customers of the first five leading banks in Malaysia. It is expected that this study will be useful for bankers in determining the effect of e banking information system on customer satisfaction and customer loyalty.

Keywords: E Banking, Information system, DeLone Mc Lean, Structural Equation Modeling

Introduction

The fast growing technology enables the customers of banking industry to execute transaction through internet facilities. This internet banking or e banking facilities are used as a distribution channel that simplifies remote access to the bank transaction (Riffai, Grant, & Edgar, 2012). The e-banking system allows various parties to access accounts, transact business, or obtain information on financial products and services via networking. Through e banking, the transfer process makes money to be carried in information storage medium such as cheques, credit cards, and electronic means rather than its pure cash form (Chavan, 2013). Researchers suggested that e banking offers significant benefits to the customer and bankers (Al-smadi & Al-wabel, 2011; Geetha, 2007) whereby it provides faster transaction to the customer and cost saving to the bankers (Sumra, Manzoor, Sumra, & Abbas, 2011). In addition, the public awareness of e-banking among users has been increasing and thus people are ready to migrate to technology applications (Mohd Khalaf Ahmad & Al-Zu'bi, 2011). Owing to the benefit and awareness of e banking facilities, there is an impressive growth in e banking development.

Compatible with the revolutionary components of the electronic marketplace, Malaysia has actively developed e-banking services since middle of year 2000 (Eid, 2007). According to Bank Negara Malaysia (2014), the e banking subscribers have increased from 2.6 million in year 2005 to 15.6 million in year 2013. Although there is an increasing number in e banking subscribers, the usage rate of internet banking is decreasing year by year and most customers feel that they do not need the internet banking facilities (Raman, 2013). As such, the customer satisfaction is important in gaining the customer attention to use the e banking facilities. Particularly the customer satisfaction on the information system provided by the bankers should be able to win the market competition (Sakhaei & Afshari, 2014). On top of that, the customer satisfaction is argued to lead to the customer loyalty (Mohsan, Nawaz, Khan, Shaukat, & Aslam, (2011); Olajide & Niyi Israel, (2012) and Khan, (2012).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

389

In spite of the increasing adoption of internet banking and it relevance towards customer satisfaction in the Malaysian banking industry, very little empirical investigation or research has been conducted in understanding factors of e banking information system that leads to customer satisfaction and customer loyalty in Malaysia. This theoretical paper is produced as there are twofold deficiencies in the past studies. Firstly, there is lack of further research in the e banking industry since most of the past studies focused in other online businesses such as online shopping (Al-Kasasbeh, Dasgupta, & AL-Faouri, (2011); Chung & Shin, (2008) and online hotel website (Asgari, Bakar, Hamid, & Seyedhamed, (2012); Ab Hamid, Cheng, & Akhir, (2011). Secondly, most of the previous studies investigated the factors for adoption of e banking (Sok Foon & Chan Yin Fah, (2011);(Sahrobi, Yee, & Nathan, 2013) and not the effect after the adoption of e banking on customer satisfaction and customer loyalty.

Literature Review

With the proliferation of internet expansion and computers usage, the e banking service has become ideal for banks to meet customer's expectations (Poon, 2008). According to Haque, Hj Ismail, & Daraz, (2009) e banking is defined as the use of the internet to deliver banking activities such as funds transfer, paying bills, viewing current and savings account balance, paying mortgages and purchasing financial instruments and certificates of deposits. In order to compete in the active market, bankers need to know the dimension of information systems that attribute to their customer satisfaction. Specifically, customer's satisfaction has been defined as the company's ability to fulfill the business, emotional, and psychological needs of its customers (Rueangthanakiet, 2008). Customer satisfaction is also defined as a result of a cognitive and affective evaluation, where some comparison standard is compared to the actual perceived performance. If the perceived performance is less than expected, customers will be dissatisfied (Singh & Srivatava, 2013).

However, having customer satisfaction is not sufficient. In this dynamic and competitive business environment; bankers need to have a loyal customer. Customer loyalty is a measure of how likely a customer is to repeat the purchases and engage in relationship activities (Mohsan et al., 2011). Customer satisfaction is considered as the primary intervening constructs in the area of service because ultimately it leads to the development of consumer loyalty or re-patronization of a product or service (Ravichandran, Prabhakaran, & Kumar, 2010). Bontis, Booker, and Serenko, (2007) found that there is a positive association between customer satisfaction and customer loyalty in the North American banking industry.

Several studies have been conducted in e services field included online shopping (Chung & Shin, 2008), hotel website (Asgari et al., 2012), e learning (Ramayah, Wai, & Lee, 2012), e government (Bavarsad & Mennatyan, 2013) and e banking (Mohd Khalaf Ahmad & Al-Zu'bi, 2011). Prior studies have also investigated the factors of e services that contributed customer satisfaction such as Ariff, Yun, Zakuan, and Ismail, (2013) using E-SERVQUAL model, Sadeghi and Hanzaee, (2010) using Theory Reasoned Action (TRA), Theory Planned Behavior (TPB) and Technology Acceptance Model (TAM) and Shanka, (2012) using SERVPERF model.

In this proposed study, DeLone and McLean (DLML) Information Systems Success Model that was updated in year 2002 will be applied to examine the effect of e banking information system on customer satisfaction and loyalty. The main difference between online service and offline service is the use of information system and DLML provides a robust indicator of the success of information systems (Jing & In Seon, 2013). DLML, which has been also used in other research areas. (Zaied, 2012) has proved that extended DLML help management to evaluate information system in public sectors. Fang, Chiu, and Wang, (2011) created a proposed model for DLML by adding the variables of justice and trust into the area of repurchase intention and e-shopper satisfaction. DLML was applied into online government system by modifying the net benefit to perceived net benefit of citizens and resulted in a significant relationship among variables (Wang & Liao, 2008).

Three dimensions of DLML that affect customer satisfaction are system quality, information quality and service quality. These dimensions will be used in developing the conceptual framework for this study. Another two dimensions which are system design and system security will be added to this conceptual framework as they are important factors that affect customer satisfaction (Guo, Ling, & Liu, 2012). System design and security are reflected through the websites and they are essentially the store house of the

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

390

information   to help the visitors and provide view of effectiveness (Ranganathan & Ganapathy, 2002). Robbins and Stylianou, (2003) also supported that website is part of system quality and established that a responsive website through system quality proves to be highly important to end-users.

The system quality is a measure of the information processing system itself, and focuses on the outcome of the interaction between the user and the system. Roca, Chiu, and Martínez, (2006) found that user satisfaction has a direct impact on system continuance intention. Ramayah et al., (2012) has further proved that information quality affects the customer satisfaction. Service quality is the customers' measurement on how well the delivered services meet their expectations (Santos, 2003). Murugiah and Akgam, (2013) proved e banking services quality was positively related to customer satisfaction in Libya's bank while Chou, (2014) found that that overall service quality in home delivery services had positive impact on customer satisfaction in Taiwan. System design refers to the construction of a website by using different elements like graphics, font types and colours to improve the presentation of the website (Ranjbarian, Fathi, & Rezaei, 2012). Al-Kasasbeh et al., (2011) proved that there was a positive relationship between system design and user satisfaction with electronic service in Jordan. On the other hand, system security refers to the website's ability in protecting consumer personal information collected from its electronic transactions from unauthorized use or disclosure (Cheung & K, 2005). An empirical study investigating the relationship between system security and customer satisfaction was conducted by Gelard and Negahdari, (2011). They focused on Germany e-commerce. Data was collected by surveying 221 online shoppers by a questionnaire.

The importance of customers has been highlighted by lots of researchers and academicians all around the world (Mohsan et al., 2011). Customer is not a burden in banking industry instead they are the asset of the company who contributes to the company's growth. The ability to provide a high degree of customer satisfaction will develop a loyal customer (Deng, Lu, Wei, & Zhang, 2010). In return customer loyalty will influence the firms' growth and profitability (Mcmurrian & Matulich, 2006).

Proposed Model

A research model will be developed to be tested with the e banking customers of the first five leading banks in Malaysia. Data will be analysed using Structural Equation Modeling (SEM). Confirmatory factor analysis will be used to test the questionnaire's internal validity. The model fit will be assessed using Chi-square, Root Mean Square Error of Approximation (RMSEA) and Comparative Fit Index (CFI). Level of acceptance for Chi-square is $p > 0.05$, for RMSEA is RMSEA < 0.08 and for CFI is CFI > 0.90. Below is the proposed SEM model:

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

391

Figure 1: Proposed SEM Model
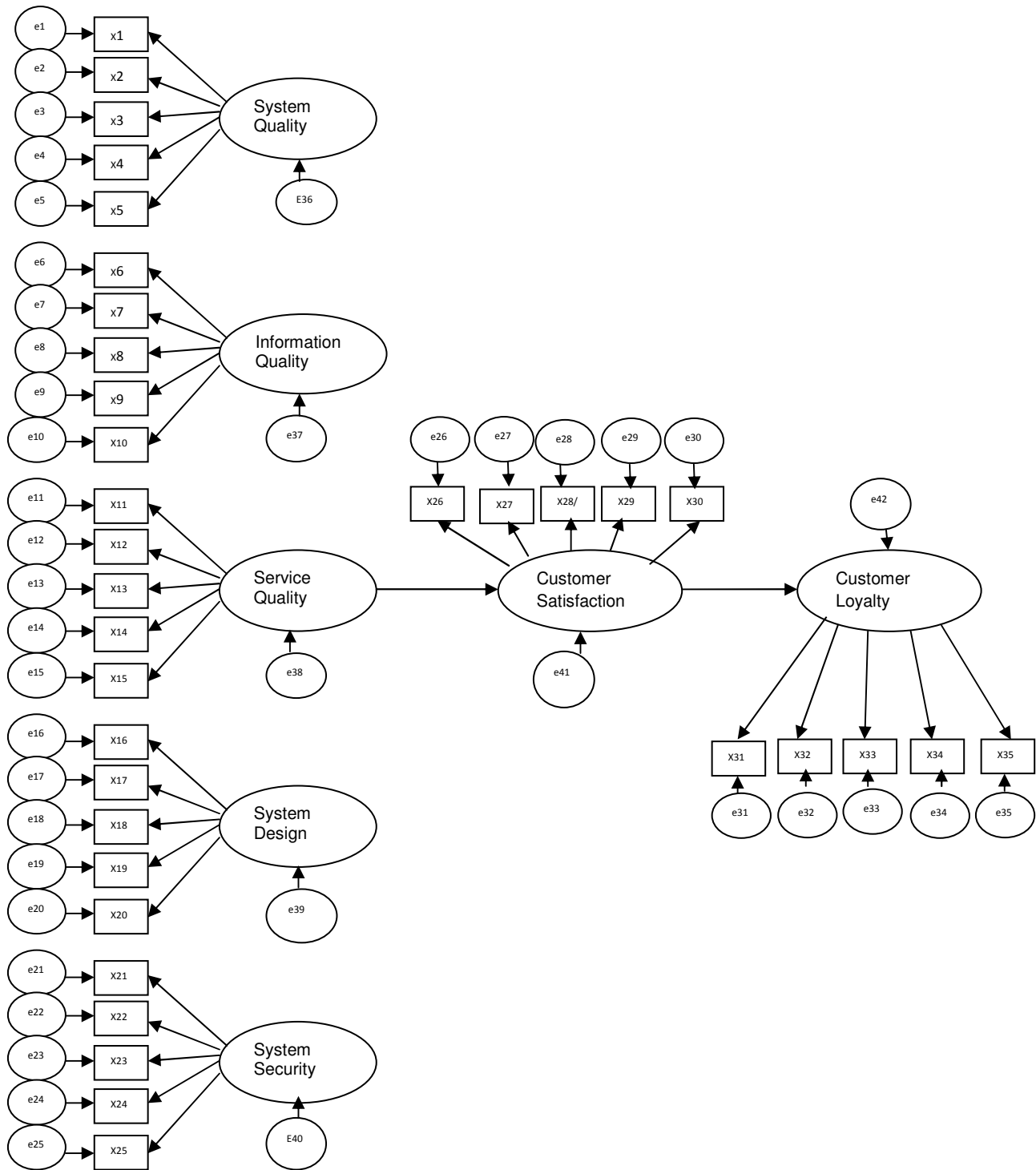
In the above proposed model, x1 to x5 are the measurement items for system quality; x6 to x10 are measurement items for information quality; x11 to x15 are the measurement items for service quality; x16 to x20 are measurement items for system design; x21 to x25 are measurement items for system quality; x26 to x30 are the measurement items for customer satisfaction; and x31 to x35 are measurement items for customer loyalty. These measurement items are known as exogenuoes observed or indicator variables and will be measured via five point likert scale. Error in measurement shows as e1 to e35 are

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

392

the error depicted from each measuring item of a variable, while error in equation shows as e36 to e42 indicated the residual in the regression equation. Exogenous variables in this research are system quality, information quality, service quality, system design and system security that represent the e banking information system. On the other hand, customer satisfaction will act as endogenues variable which will be influenced by customer satisfaction and also axogenues variable to customer loyalty. Customer loyalty is the endogenues varible for customer satisfaction. The structural equation model will be:

$CL = \beta_1 + \beta_2 CS + \beta_3 SQ + \beta_4 IQ + \beta_5 SVQ + \beta_6 SD + \beta_7 SS + e_{42}$
Whereby:

      CL = Customer Loyalty
      β_1 = Constant
      CS = Customer satisfaction
      SQ = System Quality
      IQ = Information Quality
      SVQ = Service Quality
      SD = System Design
      SS = System Security
      e = Error

The data for this study will be collected by distributing questionnaires to the bank customers who have used the e banking information system facilities from top 5 best banking experience in Malaysia. Top 5 banks in Malaysia for the best banking experience are Malayan Banking Berhad, CIMB Bank Berhad, Public Bank Berhad, Alliance Bank (Malaysia) Berhad and AmBank (Malaysia) Berhad.

Conclusions

The purpose of this theoretical paper is to explore the influence of e banking information system on customer satisfaction and subsequently examine the influence of customer satisfaction on customer loyalty. This paper includes system quality, information quality, service quality, system design and system security as the predictors for e banking information system. Based on literature review, a conceptual model has been developed using Structural Equation Modeling (SEM). Further research should be carried out to test, validate and enhance the model. The results obtained will be presented in a later study.

References

Ab Hamid, N., Cheng, A., & Akhir, R. (2011). Dimensions of E-CRM: An Empirical Study on Hotels' Web Sites. *The Journal of Southeast Asian Research*, *2011*, 1–15. doi:10.5171/2011.820820

Al-Kasasbeh, M., Dasgupta, S., & AL-Faouri, A. (2011). Factors Affecting E-Service Satisfaction. *Communications of the IBIMA*, *2011*, 1–12. doi:10.5171/2011.547937

Al-smadi, M. O., & Al-wabel, S. A. (2011). Journal of Internet Banking and Commerce. *Journal of Internet Banking and Commerce*, *16*(2).

Ariff, M. S. M., Yun, L. O., Zakuan, N., & Ismail, K. (2013). The Impacts of Service Quality and Customer Satisfaction on Customer Loyalty in Internet Banking. *Procedia - Social and Behavioral Sciences*, *81*, 469–473. doi:10.1016/j.sbspro.2013.06.462

Asgari, A. A., Bakar, A., Hamid, A., & Seyedhamed, A. A. (2012). The Determinants of E-Relationship Quality on E-Satisfaction In Hotel Websites. *IOSR Journal of Engineering*, *2*(9), 36–41.

Bavarsad, B., & Mennatyan, M. A. (2013). A Study of the Effects of Technology Acceptance Factors on Users ' Satisfaction of E-Government Services. *World Applied Programming*, *3*(5), 190–199.

Bontis, N., Booker, L. D., & Serenko, A. (2007). The mediating effect of organizational reputation on customer loyalty and service recommendation in the banking industry. *Management Decision*, *45*(9), 1426–1445. doi:10.1108/00251740710828681

Chavan, J. (2013). Internet Banking- Benefits And Challenges In An Emerging Economy. *International Journal of Research in Business Management*, *1*(1), 19–26.

Cheung, C., & K, L. M. (2005). *Research Framework for Consumer Satisfaction with Internet Shopping* (Vol. 5).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

393

Chou, P. F. (2014). An Evaluation Of Service Quality , Trust , And Customer Loyalty In Home-Delivery Services. *International Journal of Research In Social Sciences*, *3*(8), 99–108.

Chung, K., & Shin, J. I. (2008). The Relationship among e-Retailing Attributes , e- Satisfaction and e-Loyalty. *Management Review: An International Journal*, *3*(1), 23–45.

Deng, Z., Lu, Y., Wei, K. K., & Zhang, J. (2010). Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China. *International Journal of Information Management*, *30*(4), 289–300. doi:10.1016/j.ijinfomgt.2009.10.001

Eid, M. I. (2007). Determinants Of E-Commerce Customer Satisfaction , Trust , And Loyalty In Saudi Arabia. *Journal of Electronic Commerce Reserach*, *12*(1), 78–93.

Fang, Y.-H., Chiu, C.-M., & Wang, E. T. G. (2011). Understanding customers' satisfaction and repurchase intentions: An integration of IS success model, trust, and justice. *Internet Research*, *21*(4), 479–503. doi:10.1108/10662241111158335

Geetha, K. T., & Malarvizh, V. (2007). Acceptance Of E-Banking Among Customers (An Empirical Investigation in India). *Journal of Management and Science*, *2*(1), 1–69.

Gelard, P., & Negahdari, A. (2011). A New Framework For Customer Satisfaction In Electronic Commerce. *Australian Journal of Basic and Applied Sciences*, *5*(11), 1952–1961.

Guo, X., Ling, K. C., & Liu, M. (2012). Evaluating Factors Influencing Consumer Satisfaction towards Online Shopping in China. *Asian Social Science*, *8*(13), 40–50. doi:10.5539/ass.v8n13p40

Haque, A., Hj Ismail, A. Z., & Daraz, A. H. (2009). Issues of E-Banking Transaction: An Empirical Investigation on Malaysia Customers Perception. *Journal of Applied Science*, *9*(10), 1870–1879.

Jing, G., & In Seon, Y. (2013). An Empirical study on the Effect of E-Service Quality to Satisfaction. *International Journal of Management Sciences and Business Research,*, *2*(10), 25–31.

Khan, I. (2012). Impact of Customers Satisfaction And Customers Retention on Customer Loyalty. *International Journal of Scientific & Technology Research*, *1*(2), 106–110.

Mcmurrian, R. C., & Matulich, E. (2006). Building Customer Value And Profitability With Business Ethics. *Journal of Business & Economics Research*, *4*(11), 11–18.

Mohd Khalaf Ahmad, A. E., & Al-Zu'bi, H. A. (2011). E-banking Functionality and Outcomes of Customer Satisfaction : An Empirical Investigation. *International Journal of Marketing Studies*, *3*(1), 50–65.

Mohsan, F., Nawaz, M. M., Khan, M. S., Shaukat, Z., & Aslam, N. (2011). Impact of Customer Satisfaction on Customer Loyalty and Intentions to Switch : Evidence from Banking Sector of Pakistan. *International Journal of Business and Social Science*, *2*(16), 263–270.

Murugiah, L., & Akgam, H. A. (2013). Study of Customer Satisfaction in the Banking Sector in Libya. *Journal of Economics, Business and Management*, *3*(7), 674–677. doi:10.7763/JOEBM.2015.V3.264

Olajide, P. O., & Niyi Israel, A. (2012). Effect of customer satisfaction on customer loyalty among selected bank customer in Ado-Ekiti Metropolis Nigeria. *Interdisciplinary Journal Of Contemporary Research In Business*, *3*(11), 228–236.

Poon, W.-C. (2008). Users' adoption of e-banking services: the Malaysian perspective. *Journal of Business & Industrial Marketing*, *23*(1), 59–69. doi:10.1108/08858620810841498

Raman, A. (2013). Diminutive Usage of Internet Banking: A Malaysian Case Study. *Computer Technology and Application*, *4*, 380–386.

Ramayah, T., Wai, J., & Lee, C. (2012). System Characteristics , Satisfaction And E-Learning Usage : A Structural Equation Model (SEM). *The Turkish Online Journal of Educational Technology*, *11*(2), 26–28.

Ranganathan, C., & Ganapathy, S. (2002). Key dimensions of business-to-consumer web sites. *Information & Management*, *39*(6), 457–465. doi:10.1016/S0378-7206(01)00112-4

Ranjbarian, B., Fathi, S., & Rezaei, Z. (2012). Factors Influencing on Customers' E-Satisfaction: A case Study from Iran. *Interdisciplinary Journal Of Contemporary Research In Business*, *3*(9), 1496–1511.

Ravichandran, K., Prabhakaran, S., & Kumar, S. A. (2010). Application of Servqual Model on Measuring Service Quality : A Bayesian Approach. *Emterprise Risk Management*, *1*(1), 145–169.

Riffai, M. M. M. a., Grant, K., & Edgar, D. (2012). Big TAM in Oman: Exploring the promise of on-line banking, its adoption by customers and the challenges of banking in Oman. *International Journal of Information Management*, *32*(3), 239–250. doi:10.1016/j.ijinfomgt.2011.11.007

Robbins, S. S., & Stylianou, A. C. (2003). Global corporate web sites: an empirical investigation of content and design. *Information & Management*, *40*(3), 205–212. doi:10.1016/S0378-7206(02)00002-2

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

394

Roca, J. C., Chiu, C.-M., & Martínez, F. J. (2006). Understanding e-learning continuance intention: An extension of the Technology Acceptance Model. *International Journal of Human-Computer Studies*, *64*(8), 683–696. doi:10.1016/j.ijhcs.2006.01.003

Rueangthanakiet, P. (2008). *Members' Satisfaction Of Fitness Service Quality : A Case Study Of California Wow Xperience Public Company Limited*. Srinakharinwirot University.

Sadeghi, T., & Hanzaee, K. H. (2010). Customer satisfaction factors (CSFs) with online banking services in an Islamic country: I.R. Iran. *Journal of Islamic Marketing*, *1*(3), 249–267. doi:10.1108/17590831011082428

Sahrobi, M., Yee, Y. M., & Nathan, R. J. (2013). sahrobi.pdf. *International Arab Journal of E Technology*, *3*(2), 76–82.

Sakhaei, S. F., & Afshari, A. J. (2014). The Impact of Service Quality on Customer Satisfaction in Internet Banking. *Journal of Matematics and Computer Science*, *9*, 33–40.

Santos, J. (2003). E-service quality: a model of virtual service quality dimensions. *Managing Service Quality*, *13*(3), 233–246. doi:10.1108/09604520310476490

Shanka, M. S. (2012). Bank Service Quality , Customer Satisfaction and Loyalty in Ethiopian Banking Sector. *Journal of Business Administration and Managent Sciences Research*, *1*(1), 1–9.

Singh, A., & Srivatava, M. (2013). Factors Affecting Customer Satisfaction : A Study on Maruti Suzuki. *International Journal of Advanced Research in Computer Science and Software Engineering*, *3*(5), 865–874.

Sok Foon, Y., & Chan Yin Fah, B. (2011). Internet Banking Adoption in Kuala Lumpur: An Application of UTAUT Model. *International Journal of Business and Management*, *6*(4), 161–167. doi:10.5539/ijbm.v6n4p161

Sumra, S. H., Manzoor, M. K., Sumra, H., & Abbas, M. (2011). The Impact of E-Banking on the Profitability of Banks: A Study of Pakistani Public Sector Banks. *Journal of Public Administration and Governance*, *1*(1), 31–38. doi:10.5296/jpag.v1i1.692

Wang, Y.-S., & Liao, Y.-W. (2008). Assessing eGovernment systems success: A validation of the DeLone and McLean model of information systems success. *Government Information Quarterly*, *25*(4), 717–733. doi:10.1016/j.giq.2007.06.002

Zaied, A. N. H. (2012). An Integrated Success Model for Evaluating Information System in Public Sectors. *Journal of Emerging Trends in Computing and Information Sciences*, *3*(6), 814–825.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

395

Significance of Personal Financial Literacy on Practices and Usage Behaviors on Credit Card among Academicians in a Private Tertiary Institution in Malaysia

Chooi Yi-Wei[a], Mei Si-Chia[b], Lai Kwan-Chin[c], Yoke Chin-Kuah[d], Hock Siong-Ong[e]

[a]*Universiti Tunku Abdul Rahman, Malaysia, weicy@utar.edu.my*
[b]*Universiti Tunku Abdul Rahman, Malaysia, chiams@utar.edu.my*
[c]*Universiti Tunku Abdul Rahman, Malaysia, lkchin@utar.edu.my*
[d]*Universiti Tunku Abdul Rahman, Malaysia, kuahyc@utar.edu.my*
[e]*Universiti Tunku Abdul Rahman, Malaysia, onghs@utar.edu.my*

Abstract

In line with the advancement of technology and needs towards better service, credit card market has been showing tremendous growth performance. With the rising trend of credit card borrowing worldwide, many studies have addressed issues governing the ownership and usage of credit cards, ranging from cardholders' demographical patterns, their usage trends, contributing factors and after-effects of excessive consumption. The main purpose of this study is to determine the significance of personal financial literacy on practices and usage behaviors on credit card among academicians, despite their diversity of knowledge, in a private tertiary institution in Malaysia. Dependent variable includes average credit card payment and independent variables consist of personal attitude, practice, spending, payment patterns, personal financial literacy and dummy variables include gender and income level. This study was conducted through questionnaire survey. Data obtained was analyzed using descriptive and inferential analysis. Finding reveals that personal attitudes affect the manner how academicians use and behaves with their credit cards significantly. This study also found that personal financial literacy plays a mediating role on influencing academician's usage behaviors in terms of their credit cards practices, spending and payment patterns. The implication of this study will help banks and financial institutions to understand better on the practices and usage behaviors on credit card among academicians.

Keywords: Personal financial literary, practices, usage behaviors on credit card

Introduction

Credit card has become a vital payment tool for consumers all over the world (Wang et al., 2011). The popularity of credit cards continues to grow as evidenced by a greater proportion of merchants that accept them and of consumers that carry them (Sujit and Ted, 2007).

Consumers are presented with choices between enjoying the immediate benefits against accepting limitations on future expenditures when credit card is used. The "buy now, pay later" strategy, which is no longer a stranger to users of this plastic card worldwide, has formed an integral part of consumers' credit practice. Over the centuries, financial service providers and merchants had successfully toyed with the psychological aspect of the consumers with their ever evolving marketing strategies and techniques to reach to consumers. Consumers are induced, not only, to increase their credit cards usage, but to demonstrate changes in their usage behavior. Consumer's prudent spending has since been put to test. The genuine usage of credit card in the form of "convenience" has long been shifted to becoming a "necessity", "symbol of status" and worst, relating to "overspending", "irresponsibility" and "revolving liability". Towards the later decades, the increasing trend is registered not

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

396

only by credit card usage, but also the ownership (Kaynak & Harcar, 2001; Goyal, 2006; Vathsala & Anurudh, 2009).

In Malaysia, the number of credit cards as at end March 2000 was 2.415 million compared with 2.066 million as at end March 1998, an increase of 16.9 percent over the two-year period. Comparably, the outstanding debt of credit cardholders was RM5.719 billion as at end March 2000 against RM4.406 billion as at end March 1998, representing an increase of 29.8 percent for the same period (Bank Negara Malaysia, 2011). Ownership of credit card has also showed a robust growth from 2.8 million cardholders in the year 2000 to 9.9 million cardholders in the year 2007, a growth of 253 percent during this period (Loke, 2008).

As reported by Bank Negara Malaysia (2011), 6.43 percent has turned to non-performing loans (NPL) as at the end March 2000, compared with 12.23 percent as at end March 1998 for the total credit card debt. Thus, it is indicating a significant improvement in tandem with the strengthening of the economic.

Klein (1999) stressed that credit cards play multi-dimensional roles, which go beyond the form of convenient payment to consumers, but also to provide cardholders with access to experience behaviors that are previously unaffordable to average consumers. Coupled with a number of influential factors, to name a few, a generous credit limit, quality customer service, fair credit card fees and interest rates, cardholders were reported to likely increase their spending at point of sales and hence, contributed to the increase in credit card usage (Lunt, 1992).

Although there are extensive researches had been conducted on credit card usage behaviors in the past in Malaysia (Ramayah et al., 2002; Ahmed et al., 2010; Nga et al., 2011; Jusoh & Lim, 2012; Rasiah & Masuod, 2013; Loke, 2008; Zaimah, 2013), yet in this study, researchers emphasize on credit card usage behaviors among academicians in a private tertiary institution since academicians are perceived to act as role models who are able to influence the younger generation's spending patterns by strengthening their financial knowledge through the teaching and learning process.

The objective of this study is to determine the academicians' credit card usage behaviors in a private tertiary institution in Malaysia. The major research questions addressed in this study are:

(a)   What is the most significant factor that influences academician's credit card behaviors in a private tertiary institution?

(b)   Is there any significant difference between genders in determining academician's credit card behaviors in a private tertiary institution?

(c)   Is there any significant difference between levels of income among academicians in determining their credit card behaviors in a private tertiary institution?

(d)   What are the managerial implications of the personal financial literacy on the practices and the usage behaviors on credit card among academician in a private tertiary institution?

This study includes a brief literature review of each possible influence toward the usage behaviors on credit card among academicians in a private tertiary institution. Next, the study methodology is explained, followed by discussion of the research finding. The conclusion contains the limitations and implication of the finding.

Review of Literature on Credit Card Research

Consumer Credit

Consumer credit is rising. This trend has been noticed by numerous past researches (Kamleitner & Kirchler, 2007; Foscht et al., 2010; Gan et al., 2008; Lunt, 1992). Foscht et al. (2010) suggested that the introduction of many different modes of payment is one of the contributor factors to the increase in

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

397

consumer credit. In addition to the traditional payment modes of cash and bartering, payments via plastic cards (credit cards, debit cards, smart cards, and electronic cash cards) and online transfers, have indirectly contributed to the increase. Gan et al. (2008) claimed that in Singapore, the liberalization of financial sectors had led to the rapid growth of consumer credit and with the entry of foreign banks had intensified the credit card ownership. Earlier study by Lunt (1992) added that in US, usage and ownership are encouraged by banks' initiatives and promotions in the form of quality consumer service, fair fees and low interest rate, cash bonuses and zero annual fees.

Credit card was widely marketed and with the relaxation of ownership of the card, users are offered to new and exciting experiences, which are previously unavailable. The multi-functional aspects of credit cards, to name a few, the ability to purchase beyond affordability, the ability to remain a degree of anonymity in certain purchases and leveraging on revolving provision, had led to the adoption and usage of credit card (Klein, 1999).

Credit Card in Malaysia

Credit cards were first introduced in Malaysia in 1970s and soon its popularity was widely expanded as a form payment mechanism. Primarily, they were introduced and marketed under the concept of convenience, "use now, and pay later". The demand for credit cards became tremendous as soon as users began to realize and enjoy the easy and convenient means of financing the card provided. The financing facility in the form unsecured loans of the card was far easier to be obtained when compared with other financing means that required complex and complicated process as well as the avoidance of embarrassment if loan application was turned down (Elangkovan and Ahmed, 2013).

The eligibility to obtain a credit card in Malaysia, amongst others, is of an annual income of RM18,000. However, the incremental household debt has raised concern on the credit quality of households as household debt in the form of credit card debt has reached its highest level at 87% in 2013 (Bank Negara Malaysia, 2013). To strengthen credit quality, the governor of Bank Negara Malaysia, Tan Sri Dato' Sri Dr. Zeti Akhtar Aziz, increased the annual income eligibility criterion on new credit card application to RM24,000 and applicant could only obtain a maximum of two cards tagged to the income level (Bank Negara Malaysia, 2011). The new requirement was aimed to keep households debt level at a manageable level.

On the repayment basis, card holder must fulfill a minimum 5% of their monthly transactions or RM50. Prior to 1 July 2008, all the outstanding balances were charged a flat rate of 18% interest per annum. The government of Malaysia has imposed a RM50 service tax on principal credit card and RM25 for supplementary card in the Budget 2010 (Andrew et al., 2011).

Credit Card Usage Based on Gender and Income

Numerous studies were carried out in the past to differentiate the usage behavior by gender differences. Female tends to use credit cards more than male, but the higher usage may due to female's insensitivity towards relevant credit information such as interest rate charges, penalties on late payment and many others. Elangkovan et al. (2013) proved that women, tend to overspend on unexpected and unnecessary expenses compared to men in Malaysia.

Ucal, O'neil and Cankaya (2011) found that, in Turkey, women understand better of the consequences of their credit card usage since they are keen to make full payment on time rather than servicing minimum payment. They suggested that women spent mainly on foods, clothing and cosmetics and household goods with their credit cards. Similar results were obtained from previous studies (Kaynak & Harcar, 2001; Themba & Tumedi, 2012).

Limbu, Huhmann and Xu (2012) reported that women outperform men in managing monthly outstanding balances, implying that women may be more cautious in credit cards usages and finances. They reasoned that women have lower tendency to take risk, thus, leading them to dis-associate themselves from excessive credit card debt.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

398

In regards to influence of income level to credit card usages, Robb and Sharpe (2009) established a positive relationship where their study indicated that spending behaviors of college students is influenced by its parent household income. The study suggested that lower household income student, tends to have higher credit balance due to dependency on credit card as additional source of cash flow. A study by Fogel and Schneider (2011) showed that relationships were established between disposable income and employment status with irresponsible credit card usage. Their findings showed that as disposable income increases, cardholders tend to use the credit card in more irresponsible manners. In terms of employment status, full-time working adults demonstrated irresponsible credit card usage than those unemployed. Gan et al. (2008) in their study on Singapore diverse card users, in search of variations among demographic groups, profiles and views on credit card ownership and usage, reported that income and gender significantly influence the ownership where higher income and female contributed to higher number of cards held.

Men and women tend to yield difference views on monetary value due to their different risk preference. This has led them to adopt distinctive strategy in financial decision making. In addition, higher income level produces higher repayment power which contributes to credit card usage. Thus, understanding gender differences and income differences in the use and management of credit cards should have significant implications.

Credit Card Usage Based on Personal Attitude, Practice, Spending and Payment Patterns

Consumer's personal attitude and self-control play important roles in portraying how cardholders use the plastic card, for instance the usage frequency, choice of usage and intentions to purchase. Numerous studies were carried as to determine the effect of attitudes on credit cards usage (Ramayah et al., 2002; Penman & McNeil, 2008; Nga et al., 2011; Ahmed et al., 2010).

Penman and McNeil (2008) expanded the study on attitude towards credit card usage backwards which stressed on "attitude formation". They suggested that cardholders' usage behavior is conditional to influencing factors such as lifestyle, upbringing and family structure. How one's attitude is formed when they are young will affect their usage behaviors when they enter workforce. This attitude remained with the youth into adulthood and indirectly influenced the youth's perception on monetary value, level of materialism and self-esteem. In addition, the study also stressed that card users tend to purchase on impulse to achieve a degree of self-image (an image they wish to portray). Repeated experiences of low self-esteem was said to lead to non-essential purchases to satisfy self-enhancement desire. Hence, attitude would, to some extent, influence the usage behaviors of card users.

Ahmed et al. (2010) undertook a study on factors influencing attitude toward credit card usage in Malaysia. Their empirical findings showed that self-esteem does not affect usage attitude, which is on contrary with previous studies, where self-esteem is assumed to influence attitude. They reasoned that the insignificance is due to the fact that credit card is no longer considered a symbol of status that will be assist in enhancing self-esteem. Nga et al. (2011) investigated the relationship between image consciousness, materialism and compulsive spending and the intention to use credit card among youth in Malaysia. They reported that materialism is not significantly related to credit card usage, but compulsive spending is significantly related to materialism.

Foscht et al. (2009) explored the linkage between choices of payment modes to customer satisfaction in Austria. Their studies indicated that consumer's preference is dependent on individual personal attitudes, where credit cards are more preferable than debit cards in terms of customer satisfaction. Ramayah et al. (2002) focused on validating thirteen attributes that influence usage among inactive and active card users and found that active users tend to increase their usage in line with higher monetary inducement provided by banks. Chan (1997) in his study to determine the demographic and attitude differences between active and inactive cardholders in Hong Kong, verified that usage rate is positively related to attitude.

Studies also showed that credit limit plays an important role in credit card usage and practices. A low credit limit, in effect, can restrain cardholders' capability on spending. This implies that by increasing credit limits, cardholders tend to be motivated and encouraged to spend more. Chan (1997), based on his study on the differences between "active" and "inactive" cardholders in Hong Kong, found that active

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

399

cardholders show favorable attitudes towards "larger credit limit" than inactive cardholders. Further studies by Gross and Souleles (2002) also showed that an increase in credit limits leads to direct and significant escalation in debt. This was supported by Warwick and Mansfield (2000) that despite the mandatory requirement to disclose vital information such as interest rates, consumers may not necessarily arrive at better credit decisions. Variable of attitudes toward credit card usage was measured by attitudes toward credit, risk tolerance and financial planning horizon (Leann & Sharon, 2009).

Personal Financial Literacy Level

It is commonly perceived that higher financial literacy level will exhibit better credit card practices. Responsible card users are aware of features of different credit cards, interest rates, and more importantly, they are able to reinforce the benefits and risks of the use of credit card to maintain long term financial health. Encouraging higher financial literacy level will also produce good quality credit card users.

Robb and Sharpe (2009) found that the credit card usage increases with higher level of knowledge and experience in financial market instruments. They reported that higher income families with their higher education level tend to be able manage their credit position well as they have the literacy and knowledge to seek for and understand finance related information.

Nga et al. (2011) suggested that to cope with compulsive spending, cultivating good financial planning education among youth in Malaysia is a mediating factor. They emphasized that educators need to assume the role as mentors, where they should constantly remind students that their financial decisions would have an impact on their future financial well-being and freedom. This is further supported by Jusoh and Lim (2012) that education levels affect credit card practices among working adults in Malaysia and stressed that good education should be enforced in the younger generation to nurture them in a positive and better credit card practices when they become a cardholder in the future. However, their findings showed that personal financial knowledge does not necessarily lead to good credit card practices among working adults. Hayhoe et al. (1999) in their study on college students on their attitudes towards credit cards have reported that female youth are more likely to exercise financial planning practices such as planning and budgeting.

On top of that, financial behavior is also being influenced by socioeconomic factors such as gender, age, education, income and financial knowledge. This was further supported by Zaimah et al. (2013) in their study on financial behaviors of female teachers in Malaysia.

Theory of Planned Behaviors (1991)

Theory of Planned Behaviors by Icek Ajzen in year 1991 was developed to predict a person's behavior through their intention. In line with this study, this theory was adapted to predict academicians' behavior through their attitude toward credit card usage, their subjective norms and perceived behavior control in credit card usage.

Subjective Norms

Subject norms toward credit card usage are measured by the household's willingness to finance their expenses. Using credit card for vacations and for purchasing of luxury items are included as items to measure purchases beyond basic needs. Under subjective norms, age is used to determine the cohort for each respondent. This was supported by Penman and McNeil (2008), where card users exhibit a tendency towards large volumes of non-essential purchases, with a relaxed attitude to spending and debt. These non-essential purchasing is seen to be "deserved" or a "reward" and consumers felt little need to justify their spending habits.

Perceived Behavior Control

Perceived behavior control explains people's perceptions of their ability to perform a given behavior in their credit card usage. Under this perceived behavioral control, data of financial knowledge and credit

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

400

knowledge are obtained. This independent variable will be measured by five items namely source of credit knowledge, level of shopping for credit, past payment behavior, level of education and household income (Leann & Sharon, 2009).

Methodology

Population and Sample

In this study, all academicians cross faculties in University Tunku Abdul Rahman, Kampar Campus, Perak, Malaysia had been selected as the research respondents. A set of questionnaire was piloted to 30 respondents with random sampling in same institution prior to the real study in order to determine the reliability of the items in the questionnaire. Cronbach alpha value of 0.84 in pilot test proved that all items are reliable for real study. The respondents who involved in the pilot test will not been selected for real study as respondent. Respondents consist of approximate 500 academicians from 5 different faculties namely Faculty of Engineering and Green Technology (FEGT), Faculty of Information Communication Technology (FICT), Faculty of Art and Social Science (FAS), Faculty of Science (FS), Faculty of Business and Finance (FBF) and Institute of Chinese Studies (ICS).Thus, stratified sampling was applied in this study to obtain data in every faculty to avoid bias in this study.

Data Collection

In order to obtain the data, a set of questionnaire was developed by researchers through their reading on past studies and distributed to the academicians cross faculties. The questionnaire consists of 6 sections. Section A was developed to gather the respondent's demography information. Section B contained 8 items regarding respondent's personal attitudes on credit card practice. Section C consists of 7 items on respondents' credit card practice while 6 items on respondents' credit card spending in section D. Section E was designed to generate information respondent's credit card payment pattern and finally section F contained of 10 items to obtain the information regarding personal financial literacy level among academicians.

Result and Findings

Respondents Background

Table 1 showed the information on the respondents' background. Majority of respondents are from Faculty of Business and Finance (FBF) and Faculty of Science (FS) in Universiti Tunku Abdul Rahman (UTAR). The mean age score was less than 46 years old. The age distribution of respondents comprised primarily from 31 to 45 years old cohorts (63.9 per cent). More than 90 per cent of the respondents were Malaysians. Chinese consist of 68.1 per cent of total respondents, followed by Malay (16 per cent), Indian (11.8 per cent) and other (4.2 per cent). Among Malaysians, more than 60 per cent were male. The majority of the respondents (60 per cent) was married and attained master degree and degree (76 per cent) in their level of education.

In view of the respondents' employment status, income and education level, it should come as no surprise that the respondents had experience in using credit card and 47.9 percent of them held more than one credit card. The percentage of respondents who received a monthly income less than RM5,000 was 59.6 per cent. Respondent spent on average RM1,000 per month as credit card payment for grocery, shopping, IT product, petrol and insurance fees.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

401

Table 1. Demographic profile of respondents

Items		Frequency	Percentage
Faculty	FEGT	13	10.9
	FICT	2	1.7
	FAS	12	10
	FS	44	37
	FBF	46	38.7
	ICS	2	1.7
Gender	Male	79	66
	Female	40	34
Level of education	Degree	5	4.2
	Master	85	71.4
	PHD	29	24.4
Monthly Income	RM2000-RM3500	13	10.9
	RM3501-RM5000	58	48.7
	RM5001-RM6500	29	24.4
	RM6500- RM8000	14	11.8
	>RM8000	5	4.2
Credit card in hand	1	62	52.1
	2	34	28.6
	3	20	16.8
	>4	3	2.5
Average credit card payment per month	RM100-RM500	33	27.7
	RM501-RM1000	40	33.7
	RM1000-RM1500	23	19.3
	>RM1500	23	19.3
Credit limit per month	RM4000-RM5000	34	28.6
	RM5001-RM10000	29	24.4
	RM10001-RM15000	27	22.6
	>RM15000	29	24.4
Spend on	Grocery (G)	9	7.5
	Shopping (S)	4	3.4
	IT product (IT)	2	1.7
	Petrol (P)	5	4.2
	Online purchasing (O)	15	12.6
	Insurances (I)	7	5.9
	Education (E)	0	0.0
	(S),(P),(I),(E)	43	36.2
	(G),(S),(IT),(P)	10	8.4
	All above	24	20.1

Reliability Test

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

402

Overall result indicated cronbach alpha value of 0.84 and it is acceptable for reliable research standard (Table 2). The statistics showed that all variables exhibited values ranging from 0.627 to 0.807. Only two variables, spending and payment pattern exhibited values more than 0.7, which suggests that the data are reliable and consistent with acceptable research standards.

Table 2. Reliable Test Results

Variable	No of Item	Mean	Cronbach's Alpha
Attitude	8	2.883	0.627
Practice	8	3.405	0.546
Spending	6	2.192	0.807
Payment pattern	10	2.614	0.718
Overall	32	-	0.84

Correlation Test

Table 3 revealed the relationship of each independent variable toward credit card usage behaviors among academicians. A two-tail test at 0.05 significance level indicates that there are positive relationships between each independent variable (attitude, practice, spending and payment pattern) with the credit card usage behaviors among academicians.

Table 3. Correlation Test Results

Variable	Pearson Correlation	Sig
Attitude	0.301	0.001
Practice	0.183	0.046
Spending	0.181	0.048
Payment pattern	0.283	0.002

Multiple Regression Tests

Table 4 revealed that only attitude is significant at a level of 0.05 has a positive influence on credit card usage behaviors among academicians. This finding parallels with Ramayah et al. (2002), Penman and McNeil (2008) and Chan (1990), that attitude influences credit card usage behaviors significantly.

Table 4. Multiple Regression Test Results

Model	T	Sig
(Constant)	-0.642	0.522
Attitude	2.081	0.040
Practice	0.954	0.342
Spending	-0.518	0.606
Payment pattern	1.526	0.130

Usage Behaviors on Credit Card Based on Gender

In this study, T-test was employed to determine the differences on usage behaviors among male and female academicians in a private higher institution.

Table 5 showed that at the significance level, p-value is more than 0.05 for all the independence variables. Thus, null hypothesis is accepted for the variables attitude and practice and this prove that there are no significant differences in attitude and practice between male and female toward the usage of credit card behaviors. Yet, null hypothesis is rejected for variables spending and payment pattern. These results reveal that there are significant differences between male and female in spending and payment behaviors. This result is consistent with previous studies (Elangkan & Ahmed, 2013; Ucal et al., 2011, Limbu et al., 2012).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

403

Table 5. T-test analysis to determine the differences based on gender

Variable	Gender	N	Mean	Standard deviation	t- value	Sig.
Attitude	Male	80	2.8484	0.5054	-1.119	0.265
	Female	39	2.9551	0.4502		
Practice	Male	80	3.3766	0.5127	-0.942	0.348
	Female	39	3.4647	0.4014		
Spending	Male	80	2.0875	0.6910	-2.436	0.016
	Female	39	2.4060	0.6222		
Payment	Male	80	2.5278	0.5399	-2.501	0.014
	Female	39	2.7920	0.5432		

One-way Anova test

Table 6: One-way Anova to determine the differences based on level of income

		Sum of Squares	df	Mean Square	F	Sig.
Income	Between Groups	11.794	4	2.948	2.682	0.035
	Within Groups	125.315	114	1.099		

In this study, one way ANOVA test implied to determine the differences based on level of income among academicians in their credit card usage behaviors. The significant level of 0.035 showed that the level of income affect the credit card usage behaviors among academicians (Table 6). This result is consistent with previous studies (Fogel and Schneider, 2011, Gan et al., 2008).

Personal Financial Literacy Level

Respondents were presented with 10 questions related to general knowledge on credit cards and finance. Each question was designed to measure a different aspect of personal financial knowledge. Table 6 summarized the percentage of correct responses from respondents based on frequencies analysis. In general, the level of personal financial literacy of the overall respondents is above average as majority (>50 percent) of respondents were able to provide correct answers each of the item tested. As respondents were academicians achieving education level at least a Bachelor Degree, it was presumably that they should attain a good level of personal financial knowledge and level.

Table 6: Frequency Analysis on Personal Financial Literacy Level

Item	Percentage (%)
Credit card holder needs to pay an annual fee of RM50 per card	82.40
Do you know the percentage for the late payment charges for your credit card?	57.10
Suppose you had $100 in a saving account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?	79.00
Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?	70.60
In Malaysia, to apply a classic credit card, the applicant must earn an annual income of RM24,000	61.30
Outstanding balance for credit card must be settled in full by the payment due date	57.10
There are no finance charges (interest charges) for every purchase by using credit card	57.71
Purchases by credit cards are more expensive compared payment by cash	64.70

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

404

Item	Percentage (%)
Credit card increase the current purchasing power but reduces the purchasing power of the future	77.30
Overdraft fees will not be charged even though purchases made exceeded the credit card limit	77.30

Conclusion, Limitations and Suggestions

The research results revealed that all the independent variables have relationships with independent variable. Accordingly, the dimensions of personal attitudes, the practice, spending and payment patterns affect the manner how academicians use their credit cards. Most significantly, academicians' credit card usage behaviors are highly influenced by personal attitudes. The results are supported by previous studies (Penman & McNeil, 2008; Nga et al., 2011; Ahmed et al., 2010). The study of personal attitudes on credit card usage is profound as it may due to various contributing factors including but not limited to, individual's upbringing, social influences and level of self-satisfaction.

How attitudes were formed traced back to childhood when they began to observe on and learn from their parents' behaviors and adopted the same when they entered adulthood. The adult users' behaviors would mirror their parents' as they presumed that the behaviors were common and acceptable best practices. Similarly, an individual upbringing will influence card users on weighing monetary value benefits against risks. Social influences are closely related to degree of materialism. Materialism is measured by the degree of importance placed on the acquisition and possession of income, wealth and material goods in order to achieve a level of self-satisfaction. Individuals are influenced by the social cycle they engaged in, where they tend to compare status and achievement levels. This may affect the attitudes on usage and behaviors of credit cards. Academicians, with their sophisticated education and stable financial background, generally practice self-awareness, which shun them from relying on materialism to achieve a level of self-satisfaction.

Gender and income also demonstrate a significant different set of behaviors in terms of spending and payment patterns towards credit card usage. As supported by previous studies (Leann & Sharon, 2009; Ucal et al., 2011; Limbu et al., 2012), this may due to different perception on monetary value and risk tolerance level between male and female. Women tend to alert on their spending through spending on smaller amount items, but at higher frequency but vice-versa for men. In addition, women have higher awareness towards risk and will avoid themselves to associate with high debts.

Findings on personal financial literacy level showed that academicians are found to be attentive to relevant information pertaining to the usage such as eligibility, annual fees, late payment charges and consequences. This implied that academicians are consistently monitoring their usage behaviors on their credit cards.

The results also concluded that high level of personal financial literacy plays a mediating role on how credit cards practices, spending and payment patterns are influenced by usage behaviors among academicians. Higher level of personal financial literacy assists and guides academicians to adopting and practicing prudent financial decision making when it comes to practices, spending and payment, thus regulating their usage behaviors.

Despite that relationships were established between the variables, yet insignificant results were drawn to associate academicians with specific spending and payment patterns. This may due to their higher level of awareness towards debt and the ability to weigh the risks against the benefits of credit card usage to prevent them from adopting practices that are against their principle. Academicians may also able to exert a higher degree of self-control and consciousness when they make purchases with credit cards.

Although the study offers insights into credit card usage behaviors among academicians, it contains limitations. The first limitation is the nature of the sample. A random sample could have resulted in low response rate and possible result bias (Palmer et al., 2001). Secondly, the sample was collected

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

405

from only one location, in particularly a rural area and limited to academicians from one university, thus this study may not be able to represent the true nature of credit card usage behaviors of academicians, in comparison with those residing in urban areas. Thirdly, from the respondents' profiling, the respondents are pre-dominantly Chinese (68 percent of total respondents) and the majority of the respondents (71 percent) have attained Master Degree educational level, thus, this may result in misrepresentation of the importance of personal financial literacy on credit card usage.

Future researches may draw opportunity from the above limitations. In general, a nationwide study, including wider range of respondents, from rural and urban, should be considered. In addition, future researchers may focus on other general attributes to credit card usage behaviors among academicians, for instance, attitudes towards credit card debts and payments methods, inducement factors influencing adoption and choices of credit cards and many others.

These finding should provide some implications for financial community and policy makers. Financial planners are interested in understanding how money attitudes relate to investment and saving behaviors. Financial counselors seek to understand more about how and why individuals get themselves into debt. Policy makers want to know why consumer credit card debt and personal bankruptcies have been rising so rapidly (Hayhoe et al., 1999). These results should help cardholders to understand the importance of their attitude toward money, credit and debt. Moreover, the educator may need to help the younger generation to identify their personality traits and help them to focus on the decisions involving credit (Wang et al., 2011).

References

Ahmed, Z. U., Ismail, I., Sohail, M. S., Tabsh, I., and Alias, H. (2010). Malaysia consumers' credit card usage behavior. *Asia Pacific Journal of Marketing and Logistics, 22*(4)*,* 528-544.

Andrew, T., Steven, T., and Yiing, J. L. (2011). Credit card holders, convenience users and revolvers: A tobit model with binary selection and ordinal treatment". *Journal of Applied Economics*, *XIV*(2), 225-255.

Bank Negara Malaysia (2011), *Annual Report*, Central Bank of Malaysia, Kuala Lumpur.

Bank Negara Malaysia (2013), *Annual Report*, Central Bank of Malaysia, Kuala Lumpur.

Burton, D. (2001, Sept). Credit and consumption in postmodernity. *Human Relations, 54*(9)*,* 1234-1242*.*

Chan, R. (1997). Demographic and attitudinal differences between active and inactive credit cardholders – the case of Hong Kong. *International Journal of Bank Marketing, 15*(4), 117-25.

Elangkovan, K., and Ahmed, R. A. L. (2013). Bankruptcy: A Natural Phenomena Being Attacked On Malaysians. *International Journal of Humanities and Management Sciences (IJHMS), 1*(1), 74-76.

Fogel, J., and Schneider, M. (2011). Credit card use: Disposable income and employment status. *Young Consumers*, *12*(1), 5-14.

Foscht, T., Maloless, C., Swoboda, B., and Chia, S. L. (2010). Debit and credit card usage and satisfaction: Who uses which and why – Evidence from Austria. *International Journal of Bank Marketing*, *28*(2), 150-165.

Gan, L. L., Mayasami, R. C., and Koh, H.C. (2008). Singapore credit cardholders: ownership, usage patterns and perceptions. *The Journal of Services Marketing*, *22*(4), 276-279.

Gary R. Mottola, Ph.D. (2012). In Our Best Interest: Women, Financial Literacy and Credit Card Behavior. Insight: *American Financial Capability*, 1-6

Goyal, A. (2006). Consumer perception towards the purchase of credit cards. *Journal of Services Research*, *6*, 179-190.

Gross, D. B., and Souleles, N. S. (2002, February). Do liquidity constraints and interest rates matter for consumer behavior?. *Quarterly Journal of Economics*, 150-85.

Hayhoe, C. R., Leach, L., and Turner, R. R. (1999). Discriminating the number of credit cards held by college students using credit and money attitudes. *Journal of Economic Psychology, 20*, 643-656.

Jusoh, Z., and Lim, Y. L. (2012). Personal financial knowledge and attitude towards credit card practices among working adults in Malaysia. *International Journal of Business and Social Science*, *3*(7), 176-185

Nunnally, J. C. (1967). *Psychometric theory,* New York: McGraw Hill.

Kamleitner, B., and Kirchler, E. (2007). Consumer credit use; a process model and literature review, *Revue europeenne de psychologie appliquée 57*, 267-283.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

406

Kaynak, E., and Harcar, T. (2001). Consumers' attitudes and intentions towards credit card usage in an advanced developing country. *Journal of Financial Services Marketing*, *6*, 24-39.

Klein, L. (1999). *Credit and consumption in postmodernity. Its in the cards*. Wesport CT.

Leann, G. R., and Sharon, A. D. (2009). Utilizing the Theory of Planned Behavior to understand convenience use of credit cards. *Journal of Financial Counseling and Planning 20*(2), 48-63.

Limbu, Y. B., Huhmann, B. A., and Xu, B. (2012). Are college students at greater risk of credit card abuse? Age, gender, materialism and parental influence on consumer response to credit cards. *Journal of Financial Services Marketing*, *17*(2), 148-162.

Loke, Y. J. (2008). Merchants and credit cards: determinants, perceptions and current practices - A case of Malaysia. *Journal of Financial Services Marketing 13*(2), 121-134.

Lunt, P. (1992, July). What boosts card usage?, *ABA Banking Journal*, *84*(7), 82-85.

Nga, J. K. H., Yong, L. H. L., and Sellappan, R. (2011). The influence of image consciousness, materialism and compulsive spending on credit card use intentions among youth. *Young Consumers*, *12*(3), 243-53.

Palmer, T. S., Pinto, M. B., and Parente, D. H. (2001). College students' credit card debt and the role of parental involvement: implications for public policy. *Journal of public policy and marketing, 20*(1), Competition Policy and Antitrust Law, 105-113.

Penman, S., and McNeil, L. S. (2008). Spending their way to adulthood: consumption outside the nest, *Young Consumers*, *9*(3), 155-69.

Ramayah, T., Nasser, N., Nasurdin, A., and Lim, H. C. (2002). Cardholders' attitude and bank credit card usage in Malaysia: an exploratory study. *Asian Academy of Management Journal*, *7*(1), 75-78.

Rasiah, D., and Masuod, S. (2013). The flexible Alternative Consumer Financing in Malaysia, Credit Cards. *Journal of Social and Development Sciences*, *4*(3), 147-151.

Robb, C. A., and Sharpe, D. L. (2009). Effect of Personal Financial Knowledge on College Students' Credit Card Behavior. *Journal of Financial Counseling and Planning*. *20*(1), 25-43.

Siti, R. H., Salina, K., and Nuraien, J. (2013). Credit Card Holders in Malaysia: Customer Characteristics and Credit Card Usage. *International Journal of Economics and Management*, *7*(1), 108–122.

Sujit, C., and Ted, T. (2007). A theory of credit cards. *International Journal of Industrial Organization*, *25*, 583-595.

Themba, G., and Tumedi, C. B. (2012). Credit card ownership and usage behavior in Botswana. *International Journal of Business Administration 3*(6) 60-71.

Tripathi, V. K., and Marwah, T. (2013). Demographic differences and shopping behavior of Indian middle income group users with debit cards: an empirical analysis. *Advances in Management 6*(6) 38-44.

Ucal, M., O'neil, M. L., and Cankaya, S. (2011). Effects of gender on credit card usage among university students in Turkey. *African Journal of Business Management*, *5*(22), 9023-9030

Vathsala, W., and Anurudh, G. (2009). Consumer credit card ownership and usage practices: empirical evidence from Sri Lanka. *International Journal of Consumer Studies, 33*, 436-447.

Wang, L., Lu, W., and Malhota, N. K. (2011). Demographics, attitude, personality and credit card features correlate with credit card debt: A view from China. *Journal of Economics Psychology 32*, 179-193.

Warwick, J., and Mansfield, P. (2000), Credit card consumers: college students' knowledge and attitude, *Journal of Consumer Research, 2(*1), 10-18.

Zaimah, R., Sarmila, M. S., Lyndon, N., Azoma, A. M., Selvadurai, S., Suhana S., and Er, A.C. (2013). Financial behaviors of female teachers in Malaysia. *Canadian Center of Science and Education, 9*(8), 34-41.

Theory of Planned Behavior. 12 June 2013. Value Based Management.net. Retrieved October 20, 2013, from http://www.valuebasedmanagement.net/methods_ajzen_theory_planned_behavior.html

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

407

Loan Growth of Islamic Banks

Siti Rohaya Mat Rahim[a]&Shafinaz Ahmad Nazar[b]

[a]*Department of Economics, Faculty of Business and Finance, UniversitiTunku Abdul Rahman,*

31900 Kampar, Perak, Malaysia.

[b]*Department of Economics, Faculty of Accountancy and Management, UniversitiTunku Abdul Rahman,*

Lot PT 21144, Jalan Sungai Long, Bandar Sungai Long Cheras 43000 Kajang, Selangor, Malaysia

rohaya@utar.edu.my&shafinaz@utar.edu.my

Abstract

This paper identifies determinants of loan growths for Islamic bank. Test is carried out using Generalized Methods of Moments (GMM) model. The empirical result shows credit risk is found to be statistically significant for LLP, TDP, CAP, ROAE and GDP. This implies that loan loss provision is confirmed to influence by the previous year loan loss provision values and create loan growth across Malaysian Islamic banks than GCC Islamic banks.

Keywords: Loan Growth, Instrument variables and GMM.

Overviews

The purpose of this paper is to analyze credit risk for Islamic bank in Malaysia and GCC by taken 28 sample during 2006-2012.Target population in this study were chosen from list in Bank scope. Gulf Corporation Council in this study refers to Islamic banks in Saudi Arabia, Kuwait, Bahrain, Oman, Qatar and United Arab Emirates. We then put forward, reason of selected Malaysia and GCC case for study. The most obvious features both countries relying heavily on oil revenues, remarkable economic growth. Islamic banks and conventional banks present side by side by providing Islamic window to attract investors. The most significant difference between these two countries is how to bring conventional banks activities under the same supervision and regulation as applicable to Islamic banks. Ideally, Central Bank of Malaysia produced detailed guidelines on Shariah governance effectively on December 2004 (Central Bank of Malaysia, 2004). By contrast in GCC the Shariah system is less centralised than in Malaysia.

Ideally, the nature of bank is business of taking risks. Portfolios of banks are extremely complex to determine their liquidity position, short-term and long-term funding. As by December 2014, Saudi Arabia now represent $ 207 billion of total asset followed by Malaysia $ 207 billion and UEA $ 75 billion (Young's, 2013). More recently, Hassane Cisse, (2013) reported that Middle East Islamic banking are projected to be double as $ 416 billion in year 2010 to $ 900 billion in 2015. A boom of total asset Islamic bank will turn to increase in domestic credit provided by financial sector.Much concern has been particularly expressed about why Islamic banks in these particular countries counter-cyclicality and prudent to absorb the financial shocks throughout the crisis.Credit risk categorize under risk management would be one of multitude as attributes to depositors, shareholders, bondholder, and creditor. Credit risk is the root cause of bank failure. As it indicate that weak credit risk management and poor credit quality continue to be a dominant of banking crises. There were many researchers believes that credit risk affect bank performances. It is proven that the failure of banks monitoring loan growth activities and directly involved with asset-backed securities and derivative product causes by credit risk (Lepetit, 2012). This is because credit risk causes by human behaviour; that is people make decision. Their decisions make are consequences of their incentives and incentives of the shareholders whom they represent. The existence of credit risk and bank's lending activities occur once individual select any Islamic bank to invest in.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

408

Money deposited at banks generates credit risk if regulators frequently shut down banks, which can lead to losses for their clients. To understanding what motives are shareholders and managers is important aspect of a counterparty credit risk profile. For this reason, credit risk is the principles cause bank failure.

Credit risk is a parts of risk management. BNM (2013) put aside risk management for Islamic banks as risk management function including board and senior management to oversee risk reporting and measurement system. Early empirical study by Pyle, (1997) define risk management as a process which managers capabilities identifying and mitigate risk. As emphasize by Ahmed, (2006) risk management is a requirement for Islamic banks compile under guideline of BASEL II of managing various risks. However, there are some argument from many researchers, stress out that BASEL II framework fails in mitigate risk during global financial crisis. Therefore, Basel III, IFSB Capital, IFSB Liquidity requirement, uniqueness of Islamic banking framework and Sharia' rulling were identified as major factors of banking financial crisis resilience. In this context, we come out with some issues to ponder is there any supporting evidence of loan growth for Islamic bank? The empirical answer is not self-evidence. Therefore, our aim in this paper is to investigate determinants of credit risk focusing on banks' lending activities. Subprime crises 2008/2009 have proven that the failure of banks monitoring loan growth activities and directly involved with asset-backed securities and derivative product (Lepetit, 2012).

Although Islamic bank in GCC countries is quite remarkable in terms of its growth, however, after 2008/2009 financial crisis, Islamic banks signaling alarming condition of its profits since these countries badly affect by regional crisis. It is evident that loan growth and risk management is hardly to justify. The different of Islamic banks and conventional bank would be the framework of credit risk. Islamic bank is based on products and profit and loss sharing activities whereas conventional bank supported strongly with interest on loan. Further, Sarker (1999) found amount of bad debt in Islamic banking is growing.

Figure 1.0 : Total Deposit Ratio

Sources: Bankscopes, author analysis of selective banks

Credit risk affect by volume of total deposit. Bank will face a problem once it facing a shortage of deposit, which can be translate back in terms of loan or credit. Figure 1.0 display total deposit received by customer. Note that total deposit ratio and equity loan ratio. Total deposit ratio is slightly higher for GCC as compare to Malaysia Islamic banks. In Figure 1.0, we can see GCC bears the exposure to loaned money when it starts to decline from year 2006 until year 2012. This of course is reasonable since GCC Islamic bank margins are low and regulatory capital requirements high. Therefore, this research tries to examine why Islamic bank experience increasing in loan loss provision and high credit risk.

The remainder of the paper is organized in five sections. Section 2 provide past literature review, section 3 describe variables used in the regression and model specification. Follow by section 4, briefly explain empirical specification. In section 5, highlights the main result of estimation. Sections 6 represent the conclusion including recommendation.

Related Literature Review

Tabak et al., (2011) reported that there are two main theories about loan portfolio. The first traditional banking theory stated that bank should diversify its credit portfolio, to reduce bank probability to default (Diamond, 1984). Whereas second theory from corporate finance view support the idea that bank should concentrate on the specific activities and become expertise in their activities (Jensen, 1986).Lee and Hsieh (2013) apply Generalized Method of Moments for 42 Asian countries to test the bank capital, risk and bank profitability. Finding from their research confirms that investment bank tend to have lowest capital effect on net interest margin (NIM) and net interest revenue against average assets (NR). Nevertheless, commercial banks prefer the higher reserve capital effect on ROE. The important part from this research, they able to solve critical factor of bank specialization according to its capital and geographics areas.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

409

Recent studies examine credit risk in GCC countries focusing on Islamic banks have been conducted by (Wesabi and Ahmad, 2013). In their study, non-performing loan (NPL) is used as the dependent variables including three major economic variables; gross domestic product, inflation, London inter-banks offered rate (LIBOR). Bank specific variables such as leverage and liquidity significantly affect credit risk. To this extent, Ahmad and Ahmad (2004) study factor influencing credit risk on Malaysian conventional banks and Islamic banks. Result show that loan loss provision (LLP) is positive and significant of credit risk in conventional banks whereas LLP in Islamic banks inversely related to credit risk. This result is strongly and consistent with past study (Taktak et al., 2010).

In the model of Shaikh (2013) empirically investigate the reason why deposit ratio is low in Islamic banks in Pakistan. This problem occurs due to high set up cost, high cost push inflation and increasing value of discount rate set by central bank. In contrast Vodova (2003) identify banking crisis, causes of credit risk and methods of risk mitigation in Czech Republic. First period of banking crisis started in 1993, troubles of small and medium sized bank due to high non-performing loans exceeded threshold. Another banking crisis occurs in 1999 due to healthy balance sheets peoduced by microeconomics and macroeconomic activities and it is confirm systematic banking crisis. The important is to monitor after loan has been provided with the aim to eliminate the exceeding of the set limits and to avoid adverse selection between "good" and "bad" borrowers. This paper determined structure of credit portfolio such as types of borrowers, currency as well as size of the loans.

Previous attempts by Makiyan (2008)have study credit risk in Islamic banking mentioned several general factors that make the operation of Islamic bank less risky than conventional counterparts was due to (i) less hedging instrument (ii) P& L (iii) prohibition of interest rate. In contrast, Ariffin (2012) conducted a comprehensive study about liquidity risk and financial risk and financial performance over 2006-2008 and its impact of the global financial crisis. It is measure using return on asset and return of equity of the Islamic banks as a proxy of financial performance. This study show ROA and ROE for year 2007 is lower than 2008 and 2006, indicate that higher liquidity risk during global financial financial crisis.

Hakim and Neaime (2001) found positive and significant relationship between credit risk and bank profitability. In addition, their results show that return on equity in banking is a direct and an increasing function of the bank's lending activities irrespective of Lebanon and Egypt. Ali, (2012) offers another dimension of analyzing growth of the Islamic banking sector in terms of assets, liabilities, financing and funding structures in MENA and North-Africa.Author finding reveals that, total assets increase in Qatar by 48 percent (%) and lowest was recorded in Egypt by10 percent (%).The dependent variable growth of Islamic banking is measured by two proxies (i) ratio of assets of average Islamic banks to GDP and (ii) ratio of deposits of average Islamic banks to GDP.

Methodology

To address the questions raised above, we conduct our balance panel data analysis on a micro data set of established and emerging Islamic banks: Malaysia and GCC countries. Information of bank financial statement and annual report is gathering from Bank-scope over 28 banks for the period 2006-2012.

Table 1.0: List of Islamic Bank

No	List of Bank	Country
1	Bank Islam Malaysia Berhad	Malaysia
2	Bank Muamalat Malaysia Berhad	Malaysia
3	Maybank Islamic Berhad	Malaysia
4	Hong Leong Islamic Bank Berhad	Malaysia
5	Public Islamic Bank Berhad	Malaysia
6	RHB Islamic Bank Berhad	Malaysia
7	Affin Islamic Bank Berhad	Malaysia
8	AmIslamic Bank Berhad	Malaysia

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

410

9	Alliance Islamic Bank Berhad	Malaysia
10	HSBC Amanah Malaysia Berhad	Malaysia
11	CIMB Islamic Bank Berhad	Malaysia
12	ABC Islamic Bank	Bahrain
13	Bahrain Islamic Bank	Bahrain
14	Al-Baraka Islamic Bank	Bahrain
15	Shamil Bank of Bahrain	Bahrain
16	Kuwait Finance House	Kuwait
17	Boubyan Bank	Kuwait
18	International Bank of Kuwait	Kuwait
19	Al Rajhi Bank	Saudi Arabia
20	Bank Al-Jazira	Saudi Arabia
21	Bank Al-Bilad	Saudi Arabia
22	Islamic Development Bank	Saudi Arabia
23	Bank Dhofar	Oman
24	Qatar Islamic Bank	Qatar
25	Qatar International Islamic Bank	Qatar
26	Dubai Islamic Bank	United Arab Emirates
27	Sharjah Islamic Bank	United Arab Emirates
28	United Arab Bank	United Arab Emirates

Exogenous variables

The critical indicator for examining the effect of Loan Growth is capture by Loan Loss Provision (LLP). Express as ratio of Loan Loss Provision over gross loan. The empirical specification for LLP to measure credit risk is based on (Bouvatier and Lepetit, 2012). Higher loan loss provision indicate deterioration in loan quality and increase in credit risk.

Endogenous variables

Our study focus on Total Deposit Ratio, Capital Ratio and Profitability Ratio that is consists of ROAA and ROAE. Customer deposits are the main funding source for Islamic banks. Total deposit ratio is a measure of total customer deposits divided by total funding. Theoretically the higher total deposit ratio, the higher volume of loan is perceived (Masaru and Yukihiro, 2004). These include capital ratio is used to test the variables affecting credit risk. Following study done by Ahmad (2013) there is a positive and significant relationship in capital ratio and loan growth.Higher capital ratio indicates capital strength to protect creditors from future losses arising from credit risk associated with bank's loan portfolio. Similarly,(Hassan and Mollah, 2014) positive impact of loan growth of and profitability ratio, return on average assets (ROAA) and return on average equity should be also taken into account.

Instrument variables

This paper intends to closely examine relationship instrument variables and exogenous variables. One noticeable difference, there were also possible that there could be some unobservable variables a ecting both Islamic bank performances such as loan growthleading to spurious correlation. Therefore, to address these issues, we take the instrument variables approach to be added into our regression. Internal variables such as capital ratio, profitability ratio, and liquidity ratio were used as proxy, whereas external indicator is evaluated with GDP, taxation, inflation, regulatory compliance, money supply and many other factors. Previous studies found a positively strong and significantly GDP effects on loan growth(Abedifar et al., 2012).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

411

Table 2.0: Descriptive of the variables and expected sign

Variables	Description	Formula	Sign	Sources	Ratio
1. Exogenous					
LLP	Loan Loss Provision	Loan Loss Provision / Gross Loan		Bank scope	Credit Ratio
2. Endogenous					
LLP_{t-1}	Lag of Loan Loss Provision		+ ve	Bank scope	Liquidity Ratio
TDR	Total Deposit Ratio	Total customer deposits / Total funding	+ ve	Bank scope	
CAP	Equity Loan Ratio	Total Equity / Total Loan	+ ve	Bank scope	Capital Ratio
ROAA	Return on Average Assets	Pre-tax profits / Average Assets	+ ve	Bank scope	Profitability Ratio
ROAE	Return on Average Equity	Pre-tax profits / Average Equity	+ ve	Bank scope	
3. Instrument					
GDP	Gross Domestic Product	Real Gross Domestic Product (%)	+ ve	World Bank	Macro-economics

Consistent with previous research, this study modify the methodology used by (Bouvatier and Lepetit, 2012), who determined loan loss provisions on growth in bank lending on commercial, cooperative, mutual and saving bank. The model consists of hypotheses testing. We investigate loan growth and credit risk. We expect the lower credit risk translates into a lower of loan growth. There is a positive relationship. The regression models are constructed as:

Equation (1)

Where

proxy for the loan growth of bank i at time t.
dynamic adjustment for loan growth of bank i at time t.
liquidity ratio of bank i at time t.
capital ratio of bank i at time t.
profitability ratio of bank i at time t.
profitability ratio of bank i at time t.
instrument variables of bank i at time t.
error term decomposed into and where is the bank individual-specific
effect (captures the bank individual heterogeneity) and is the disturbance.

Estimation methodology

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

412

In order to obtain robust result, STATA 11.2 software is used to test above empirical specification model. Recently, instrument variables using GMM are exercised to examine one-step and two-step estimator with robust standard error. In this paper, we consider the estimation of the Anderson and Hsiao (1981) estimator, Arellano and Bond (1991) and Blundell Bover System GMM (1995, 1998) GMM estimator. Our model, in equation (1) is the equation before estimation.

In the spite of previous research done by Arellano and Bond (1991)on dynamics panel data estimation allow for predetermined regressors, and introducing regressor-error correlation (endogenity) can be dealt with instrument variables estimation.

To address the possible problem Arellano and Bond (1991) proposed that the lagged levels of the regressors (explanatory variables) are used as instruments; under the assumptions (i) the error term is not serially correlated and (ii) the lag of explanatory variables are assumed to be uncorrelated with future error term.

Equation (2)
Equation (3)

Using these moment conditions [Equation 2 and 3] Arellano and Bond (1991) introduce a two-step GMM estimator. In the first step, the error terms are assumed to be both independent and homoskedastic across the countries and over time. In secondstep, the residual obtained from the first step is used to construct a consistent estimate of the variance-covariance matrix, thus relaxing the assumptions of independence and homoskedasticity. Theoretically, the second step estimator is more efficient than first step.

Table 3.0: Summary of Full Sample Results

	Arellano-Bond (1991) Difference GMM	Arellano-Bond (1998) System GMM	Arellano-Bond (1991) time dummies	Arellano-Bond (1998) time dummies
	Full Sample	Full Sample	Full Sample	Full Sample

	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE
	Dependent Variable: LLP			Dependent Variable: LLP			Dependent Variable: LLP			Dependent Variable: LLP		
Constant	7.947768 (2.32)**	7.142494 (11.53)***	7.142494 (2.19)**	17.52854 (7.35)***	17.4229 (75.11)***	17.4229 (2.52)**	5.263956 (1.40)	4.541213 (7.45)***	5.972434 (2.17)**	14.57988 (5.64)***	14.55219 (54.09)***	16.44784 (3.05)***
LLP_lag	-0.053503 (-0.53)	-0.0530209 (-37.90)***	-0.0530209 (-0.53)	-0.0233838 (-0.33)	-0.0238809 (-25.26***	-0.0238809 (-0.14)	0.0697926 (0.70)	-0.0211013 (-6.40)**	-0.0326579 (-0.33)	0.0528891 (0.73)	0.050694 (14.05)***	-0.00424 (-0.03)
TDP	-0.0488288 (-1.22)	-0.0388618 (-5.76)***	-0.0388618 (-1.31)	-0.1671317 (-6.40)***	-0.1641976 (-39.62)***	-0.1641976 (-2.15)**	-0.0337266 (-0.77)	-0.0166286 (-2.20)	-0.0288225 (-1.14)	-0.1523642 (-5.71)***	-0.1471069 (-24.03)***	-0.1675732 (-2.34)**

CAP	0.0584109 (1.33)	0.0507855 (8.59)***	0.0507855 (1.78)	0.0797977 (1.85)	0.0807728 (41.93)***	0.0807728 (1.37)	0.0487999 (1.05)	0.0373427 (7.31)***	0.039185 (1.79)	0.0797813 (1.77)	0.0798927 (21.04)***	0.0710508 (1.51)
ROAA	0.1431305 (0.16)	0.0409239 (0.30)	0.0409239 (0.05)	0.5098255 (0.59)	0.3587668 (1.82)	0.3587668 (0.37)	-0.0731264 (-0.08)	-0.5188856 (-3.81)***	-0.2094157 (0.780)	0.2993216 (0.33)	0.1154641 (0.58)	0.1590008 (0.18)
ROAE	-0.0818402 (-0.65)	-0.0631148 -(4.10)***	-0.0631148 (-1.14)	-0.1826303 (-1.42)	-0.1608873 (-5.94)***	-0.1608873 (-1.40)	-0.1143657 (-0.86)	-0.0332337 (-1.49)	-0.0672888 (-0.93)	-0.1986637 (-1.50)	-0.1788158 (-7.68)***	-0.1279306 (-1.31)
GDP	-0.0387256 (-0.34)	-0.0280827 -(3.00)***	-0.0280827 (-1.11)	-0.0612108 (0.600)	-0.0559838 (-5.54)***	-0.0559838 (-0.93)	0.1903937 (0.95)	0.068098 (2.31)**	0.0791559 (0.359)	0.1757991 (0.93)	0.1391603 (4.05)***	0.1095041 (0.77)
Sargan Test	0.0000	0.2016	-	0.0000	0.1797	-	0.0000	0.2331	-	0.0000	0.1622	-
AR (1)	-	0.3295	0.3734	-	0.3116	0.3877	-	0.3022	0.3467	-	0.2438	0.3190
AR (2)	-	0.3178	0.3380	-	0.2115	0.2884	-	0.3069	0.3283	-	0.2059	0.2421
N	28	28	28	28	28	28	28	28	28	28	28	28

Notes: Figures in the parentheses are the t-statistics, *, ** and * denotes significant at 1%, 5% and 10%.**

The Anderson and Hsiao (1981) estimator is consistent but not efficient because it does not use all the available moment conditions. Arellano and Bond (1991) (1998) propose a generalized method of moments (GMM) estimator henceforth, the AB estimator that also relies on first-differencing the model. Therefore, the moment conditions for endogenous covariates are: $E\{x_{it-s}(\varepsilon_{it} - \varepsilon_{it-1})\} = 0$ for $t \geq 3$ and $2 \leq s < t$. Overall, two step difference GMM are robust. Similar findings indicate there is significant result obtained with the time dummies. Sargan test result show p-value > t-statistics., we fail to reject the null hypothesis (the instruments used are valid). AB test reports no second-order serial correlation for the disturbance equation.

Table 4.0: Summary of GCC Islamic Bank Results

	Arellano-Bond (1991) Difference GMM	Arellano-Bond (1998) System GMM	Arellano-Bond (1991) time dummies	Arellano

				-Bond (1998) time dummies
GCC Islamic Bank	GCC Islamic Bank	GCC Islamic Bank	GCC Islamic Bank	
Dependent	Dependent Variable: LLP	Dependent Variable: LLP	D	

Variable: LLP

Dependent Variable: LLP

	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE
Constant	8.153839 (1.79)	8.401399 (13.63)***	8.401399 (1.62)	18.14083 (5.72)***	18.19968 (40.39)***	18.19968 (1.58)	6.836476 (1.35)	5.037105 (2.67)*	5.037105 (2.04)**	15.76913 (4.59)***	15.04108 (15.71)***	16.90059 (3.90)***
LLP_lag	-0.1027292 (-0.80)	-0.1026699 (-25.54)***	-0.1026699 (-1.01)	0.0028333 (0.03)	0.0027589 (0.48)	0.0027589 (0.03)	0.0227822 (0.18)	-0.0635165 (-8.43)***	-0.0635165 (-0.36)	0.0358807 (0.39)	0.0303088 (3.71)***	0.0172612 (0.16)
TDP	-0.0484531 (-0.89)	-0.046964 (-6.61)***	-0.046964 (-0.87)	-0.1768414 (-4.86)***	-0.1756465 (-19.61)***	-0.1756465 (-1.29)	-0.0572408 (-0.93)	-0.0132696 (-0.54)	-0.0132696 (-0.39)	-0.177207 (-4.81)***	-0.1542261 (-10.45)***	-0.142389 (-3.04)**
CAP	0.0499948	0.050316	0.0503163	0.0460839	0.045599	0.0455997	0.052078	0.0116861	0.0116861	0.0336112	0.0289053	0.0394246

	(0.93)	3 (15.27)***	(1.47)	(0.88)	7 (11.90)***	(0.77)	4 (0.90)	(1.15)	(0.19)	(0.63)	(2.91)**	(0.80)
ROAA	0.4602145 (0.35)	0.3672866 (2.66)	0.3672866 (0.54)	-0.0912529 (-0.07)	0.2738465 (0.66)	0.2738465 (0.04)	0.4360444 (0.29)	0.2094951 (0.52)	0.2094951 (0.24)	-0.1921823 (-0.14)	1.213643 (2.32)**	-0.68371 (-0.10)
ROAE	-0.1417584 (-0.70)	-0.1301764 (-7.47)***	-0.1301764 (-1.82)	-0.0988112 (-0.47)	-0.1469285 (-2.93)**	-0.1469285 (-0.12)	-0.1872366 (-0.85)	-0.075359 (-1.30)	-0.075359 (-0.73)	-0.0539405 (-0.25)	-0.2005421 (-2.86)**	-0.0326769 (-0.05)
GDP	-0.0368211 (-0.20)	-0.0439493 (-4.97)***	-0.0439493 (-0.49)	-0.0229678 (-0.12)	-0.0440527 (-1.39)	-0.0440527 (-0.21)	0.2848096 (1.03)	0.0004357 (0.01)	0.0004357 (0.00)	0.2511354 (1.02)	0.1603847 (2.06)**	-0.1683862 (-0.20)
Sargan Test	0.0000	0.3816	-	0.0000	0.7030	-	0.0000	0.9999	-	0.0000	0.9949	-
AR (1)	-	0.3065	0.3643	-	0.3129	0.3339	-	0.3488	0.5144	-	0.2911	0.3876
AR (2)	-	0.3039	0.3154	-	0.1924	0.2245	-	0.3361	0.3631	-	0.1670	0.1793
N	17	17	17	17	17	17	17	17	17	17	17	17

Notes: Figures in the parentheses are the t-statistics, ***, ** and * denotes significant at 1%, 5% and 10%.

We examine the effect loan growth in GCC Islamic bank in Table 4.0. This result demonstrates two-step difference GMM produce better and significant result as compare to one-step and two-step with robust SE. On the contrary, the results show slightly different once it tested with time dummies.Sargan test were apply of over-identification of restrictions to test model specification validity. This test examines the lack of correlation between the instruments and the error term. The AR1 and AR2 statistics measure first and second degree serial correlation. Given the use of first-difference transformations, we expect some degree of first-order serial correlation, although this correlation does not invalidate our results. However, the presence of second-order serial correlation does signal omitted variables. Thus, the diagnostic checking results suggest that the models are relatively well specified.All instrument variables is valid expect for ROAA in two-step difference GMM

Table 5.0: Summary of Malaysian Islamic Bank Results

	Arellano-Bond (1991) Difference GMM	Arellano-Bond (1998) System GMM	Arellano-Bond (1991) time dummies	Arellano-Bond (1998) time dummies
	Malaysian Islamic Bank	Malaysian Islamic Bank	Malaysian Islamic Bank	Malays Arellano-Bond (1998) time dummies Malays

				ian Islamic Bank
	Dependent Variable: LLP	Dependent Variable: LLP	Dependent Variable: LLP	Dependent Variable: LLP

	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE	One-Step Difference GMM	Two-Step Difference GMM	Two-Step Difference GMM with Robust SE
Constant	0.9774818 (0.55)	0.8536927 (0.80)	0.8536927 (0.34)	3.485266 (2.18)**	1.169597 (0.85)	1.169597 (0.43)	-0.1006492 (-0.06)	2.294609 (1.07)	4.054326 (0.91)	1.529689 (0.91)	2.624736 (1.29)	1.169597 (0.43)
LLP_lag	0.9057952 (12.45)***	0.9373089 (8.04)***	0.9373089 (1.90)*	0.8083424 (14.87)***	0.7964493 (7.01)***	0.7964493 (2.75)**	0.8529146 (11.85)***	-0.0538674 (-0.07)	-0.0538674 (-0.07)	0.7877025 (14.44)***	-0.1933182 (-0.25)	0.7964493 (2.75)**
TDP	0.0062904 (0.32)	0.0035773 (0.23)	0.0035773 (0.15)	-0.0277115 (-1.61)	-0.0006464 (-0.05)	-0.0006464 (-0.03)	0.0215397 (1.10)	0.0209029 (0.85)	0.0209029 (0.85)	-0.0039397 (-0.22)	0.019368 (1.19)	-0.0006464 (-0.03)
CAP	-0.0686706 (-0.96)	-0.0194018 (-0.40)	-0.0194018 (-0.08)	0.0017178 (0.03)	0.0366171 (0.78)	0.0366171 (0.20)	-0.0782164 (-1.00)	-0.0323453 (-0.21)	-0.0323453 (-0.21)	0.01045 (0.14)	0.0334892 (0.27)	0.0366171 (0.20)
ROAA	-1.028455 (-1.08)	-1.399278 (-0.97)	-1.399278 (-0.32)	-1.361364 (-1.50)	-2.256861 (-1.56)	-2.256861 (-0.66)	-0.4196344 (-0.38)	1.102995 (0.29)	1.102995 (0.29)	-1.167229 (-1.12)	-0.4920128 (-0.20)	-2.256861 (-0.66)
ROAE	0.0225494 (0.42)	0.0379759 (0.46)	0.0379759 (0.15)	0.043848 (0.83)	0.0806248 (0.92)	0.0806248 (0.38)	-0.0169002 (-0.28)	-0.0907439 (-0.48)	-0.0907439 (-0.48)	.0190035 (0.33)	-0.0081369 (-0.07)	0.0806248 (0.38)
GDP	0.0152356 (0.50)	-0.0022066 (-0.12)	-0.0022066 (-0.05)	-0.0004435 (-0.02)	-0.0098236 (-0.55)	-0.0098236 (-0.34)	-0.0212305 (-0.53)	-0.3884442 (-1.27)	-0.6817304 (-0.91)	-0.0108581 (-0.28)	-0.4076632 (-1.33)	-0.0098236 (-0.34)
Sargan Test	0.0080	0.9951	-	0.0001	0.9999	-	0.0071	1.0000	-	0.0001	1.0000	-
AR (1)	-	0.2201	0.6072	-	0.2419	0.5453	-	0.3620	0.5232	-	0.3630	0.5619
AR (2)	-	0.2863	0.3323	-	0.3371	0.3559	-	0.4351	0.6354	-	0.3658	0.5626
N	11	11	11	11	11	11	11	11	11	11	11	11

Notes: Figures in the parentheses are the t-statistics, ***, ** and * denotes significant at 1%, 5% and 10%.

Table 5.0 repeats the analysis using the same method; however, the loan growth is tested only for Malaysian Islamic banks. Interestingly, the notable difference is that all instrument variables are reported insignificant except for LLP_lag variables. This implies that loan loss provision is confirmed to influence by the previous year loan loss provision values. It is clearly that the loan loss provision effect across Malaysian Islamic banks than GCC Islamic banks.

Table 6.0: Summary of Resultswith pre-determined variables

	Arellano-Bond (1991) Difference GMM	Arellano-Bond (1998) System GMM	Arellano-Bond (1991) Difference GMM	Arellano-Bond (1998) System GMM	Arellano-Bond (1991) Difference GMM	Arellano-Bond (1998) System GMM
	Full Sample	Full Sample	GCC Islamic Bank	GCC Islamic Bank	Malaysian Islamic Bank	Malaysian Islamic Bank
Constant	5.062185	15.05539	4.4067	15.45865	0.2179749	1.11751
	(11.28)***	(57.77)***	(4.71)***	(5.37)***	(0.32)	(1.59)
LLP_lag	0.0181477	0.071717	-0.0837203	0.1464842	0.8504538	0.7964905
	(2.75)**	(3.61)***	(-1.88)*	(2.67)**	(9.47)***	(4.57)***
TDP	-0.0197444	-0.1371764	-0.0114592	-0.150311	0.0115697	0.0011593
	(-5.81)***	(-45.19)***	(-1.27)	(-4.74)***	(0.92)	(0.11)
CAP	0.0593869	0.0624762	0.0461616	0.0403003	0.0386951	0.0469409
	(7.27)***	(21.30)***	(4.62)***	(3.68)***	(0.58)	(0.85)
ROAA	-0.4619793	-0.4687793	-0.3027242	-0.5691501	-3.503342	-3.171295
	(-2.52)**	(-2.00)**	(-0.57)	(-1.35)	(-2.62)**	(-2.43)**
ROAE	-0.031489	-0.0697464	-0.0151232	-0.0103545	0.1472696	0.1277312
	(-1.66)*	(0.048)**	(-0.21)	(-0.21)	(1.84)*	(1.55)
GDP	0.0522912	0.0385395	0.1088623	0.0879455	0.0028538	-0.0003835
	(6.97)***	(3.13)**	(3.57)***	(2.34)**	(0.19)	(-0.02)
Sargan Test	0.9013	0.9949	1.0000	1.0000	1.0000	1.0000
AR (1)	0.3108	0.2828	0.4495	0.1930	0.1459	0.3509
AR (2)	0.3133	0.2041	0.2219	0.3144	0.3711	0.3620
N	28	28	17	17	11	11

Notes: Figures in the parentheses are the t-statistics, *, ** and * denotes significant at 1%, 5% and 10%.**

Table 6.0 report the effect of pre-determined variables. In our study, we assume that GDP as a pre-determined variables. Predetermined variables exitserror term is uncorrelated with past observation-specific disturbances, called as exogenous, and is called endogenous if it is correlated only with past and current observation-specific disturbances. The result is similar to full sample that obtained in Table 3.0. Real GDP variables are statistically significant in all models. Sargan test result show p-value > t-statistics, we fail to reject the null hypothesis (the instruments used are valid). Again, AB test reports no second-order serial correlation for the disturbance equation. This finding supported that the assumption of when there is an increase of GDP in one country, bank will tend to increase loan to customer and create higher loan growth in future. The impacts of GDP variables have showed a positive and significant for GCC Islamic bank rather than Malaysian Islamic bank.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

423

Table 7.0: Summary of ResultsDynamic Panel Data Estimation with maximum lag=2.

	Arellano-Bond (1991) Difference GMM	Arellano-Bond (1998) System GMM	Arellano-Bond (1991) Difference GMM	Arellano-Bond (1998) System GMM	Arellano-Bond (1991) Difference GMM	Arellano-Bond (1998) System GMM
	Full Sample	Full Sample	GCC Islamic Bank	GCC Islamic Bank	Malaysian Islamic Bank	Malaysian Islamic Bank
Constant	6.773155 (6.88)***	17.21787 (48.63)***	7.866211 (10.99)***	18.01532 (74.80)***	0.2125128 (0.22)	1.714184 (1.30)
LLP_lag	-0.0254744 (-3.74)***	-0.0110234 (-2.31)**	-0.0972464 (-14.420)***	0.0110504 (2.58)**	0.8867709 (12.74)***	0.804064 (6.25)***
TDP	-0.0387552 (-3.11)**	-0.1602974 (-27.52)***	-0.0476738 (-5.80)***	-0.1721186 (-20.34)***	0.007257 (1.06)	-0.0084589 (-0.64)
CAP	0.0563565 (4.57)***	0.0982737 (24.31)***	0.0646665 (12.49)***	0.0584067 (16.11)***	0.0411543 (0.82)	0.0439724 (1.34)
ROAA	0.1363415 (0.71)**	0.3652404 (1.35)	0.6279993 (3.73)***	0.1037432 (0.17)	-2.690282 (-2.75)**	-1.821742 (-1.34)
ROAE	-0.077861 (-3.44)**	-0.1673959 (-4.22)***	-0.1641306 (-6.44)	-0.1148988 (-1.26)	0.1022548 (1.97)**	0.0486196 (0.60)
GDP	-0.0218187 (-1.81)*	0.0385395 (3.13)**	-0.0194526 (-1.33)	-0.0347773 (-1.23)	0.0115839 (0.54)	-0.0058209 (-0.25)
Sargan Test	0.3201	0.0774	0.3362	0.4215	0.8947	0.9780
AR (1)	0.3242	0.2955	0.3007	0.3077	0.1039	0.2586
AR (2)	0.3190	0.2116	0.3087	0.1736	0.3532	0.2740
N	28	28	17	17	11	11

Table 7.0 with the alternative proxy for LLP, which we tries to limited panel data estimation with maximum number of lag 2. These findings suggest that the results obtained in Table 6.0 are robust to changes in the loan loss provision. This indicator is found to be statistically significant for LLP_lag, TDP, CAP, ROAA, ROAE and GDP. Sargan test result show p-value > t-statistics, we fail to reject the null hypothesis (the instruments used are valid). Again, AB test reports no second-order serial correlation for the disturbance equation.

Conclusion and Recommendation

The evidence presented utilizing micro balance panel data analysis of established and emerging Islamic banks in the case of Malaysia and GCC countries. The evidence remains valid for all instrument used in this study, including loan loss provision, total deposit ratio, equity loan ratio, return on average assets, and return on average equity and gross domestic products.

Our findings also suggest that pre-determined variables which are GDP reported significant result for full sample and GCC Islamic banks but show different scenario for Malaysian Islamic banks. We also find that ROAA is not significantly influence loan growth. In term of policy implication, our findings suggest that policy makers and Islamic banking institutions at least try to monitor their loan activities in order to reduce the loan growth from loan loss provision.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

424

Bibliography

Abedifar, P., Molyneux, P., & Tarazi, A. (2012). Risk in Islamic Banking. *LAPE Working Paper* (pp. 1-54). United States: Social Science Research Network.

Ahmad, H. A. (2013). Credit risk of Islamic banks in GCC countries. *International Journal of Banking and Finance* , 121-135.

Ahmad, N. H., & Ahmad, S. N. (2004). Key Factors Influencing Credit Risk of Islamic Bank: A Malaysian Case. *The Journal of Muamalat and Islamic Finance Research* , 1-10.

Ahmed, H. (2006). Risk Management Assesment Systems: An Application to Islamic Bank. *Islamic Economic Studies* , 63-86.

Anderson, T. W., & Hsiao C. (1981). Estimation of Dynamics Models with Error Components, *Journal of American Statistical Association, 76,* 598-606.

Ali, S. S. (2012). Islamic Banking in the Middle-East and North-Africa (MENA) Region . *Islamic Economic Studies, 20, 1* , 1-44.

Arellano, M., & Bond, S. (1991). Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations. *Review of Economic Studies, 58* , 277-297.

Arellano, M., &Bover, O. (1995). Another Look at the Instrument Variables Estimation od Error Component Model. *Journal of Econometrics, 68* , 29-51.

Ariffin, N. M. (2012). Liquidity Risk Management and Financial Performance in Malaysia: Empirical Evidence from Islamic Banks. *Aceh International Journal of Social Sciences 1(2)* , 68-75.

Blundell, R., & Bond, S. (1998). Initial Conditions and Moment Restrictions in Dynamics Panel Models. *Journal of Econometrics, 87*, 115-143.

BNM. (2013). *Risk Governance.* Kuala Lumpur: Central Bank of Malaysia.

Bouvatier, V. A & Lepetit, L (2012). Effect of Loan Loss Provisions on Growth in Bank Lending: Some International Comparison. *International Economics* , 91-116.

Central Bank of Malaysia. (2004). *Guidelines on the Governance of Shariah Committees for Islamic Financial Institutions.* Malaysia: Central Bank of Malaysia.

Diamond, D. W. (1984). Financial intermediation and delegated monitoring. *The Review of Economic Studies* , 393-414.

Hakim, S., & Neaime, S. (2001). *Performance and Credit Risk in Banking Performance: A Comparative Study of Egypt and Lebanon.* Cairo, Egypt: ERF Working Paper, WP0137.

Hassan, M. K., & Mollah, S. (2014, March 29). *Corporate Governance, Risk Taking and Firm Performance of Islamic Banks during Global Financial Crisis.* Retrieved March 29, 2014, from http://cbagccu.org/files/pdf/3/2.pdf: http://cbagccu.org/files/pdf/3/2.pdf

Hassane Cisse, N. R. (2013). The World Bank Legal Review, Volume 5: Fostering Development through Opportunity, Inclusion, and Equity. In N. R. Hassane Cisse, *The World Bank Legal Review, Volume 5: Fostering Development through Opportunity, Inclusion, and Equity* (pp. 130-131). Washigton D.C.: The World Bank.

Jensen, M. (1986). Agency costs of Free Cash Flow, Corporate Finance and Takeovers. *American Economic Review 76* , 323-329.

Lee, C. C., & Hsieh, M.-F. (2013). The impact of bank capital on profitability and risk in Asian. *Journal of International Money and Finance* , 251-281.

Lepetit, V. B. (2012). Effects of Loan Loss Provisions on Growth in Bank Lending: Some International Comparisons. *International Economics 132* , 91-116.

Makiyan, S. N. (2008). Risk management and challenges in Islamic banks. *Journal of Islamic Economics, Banking and Finance, 4 (3)* , 45-54.

Masaru, Y., & Yukihiro, K. (2004). Factors affecting bank risk taking: Evidence from Japan. *Journal of Banking and Finance* , 215–232.

Pyle, D. H. (1997). Bank Risk Management: Theory. *Conference on Risk Management and Regulation in Banking* , (pp. 1-14). Jurusalem.

Sarker, M. A. (1999). Islamic Banking in Bangladesh: Performance, Problems and Prospects. *International Journal of Islamic Financial Services 1,* , 1-21.

Shaikh, S. A. (2013). Determinants of Islamic Banking Growth in Pakistan. *Journal of Islamic Economics, Banking & Finance ,vol.10, no.1* , 1-17.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

425

Tabak, B. M., Fazio, D. M., & Cajueiro, D. O. (2011). he effects of loan portfolio concentration on Brazilian banks' return and risk. *Journal of Banking and Finance* , 3065-3076.

Taktak, N. B., Zouari, S. B., & Boudriga, A. (2010). Do Islamic banks use loan loss provisions to smooth their results? *Journal of Islamic Accounting and Business Research* , 114-127.

Vodova, P. (2003). Credit Risk as a Cause of Banking Crises. *In The paper prepared for the Fifth International Conference Aidea Giovani*, (pp. 1-24). Milan.

Wesabi, H. A., & Ahmad, N. H. (2013). Credit risk of Islamic banks in GCC countries. *International Journal of Banking and Finance* , 111-136.

Young's, E. (2013). *World Islamic Banking Competitiveness Report 2013.* Mena: Ernst & Young's.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

426

A Exploratory Study On Real Property Valuation And The Variable Affecting The Price Change

Woo kok hoong

Faculty of Business and Finance, Universiti Tunku Abdul Rahman,Malaysia,

khwoo@utar.edu.my

Abstract

The real property valuation is an important area of research pending further exploration .The objective of the paper is to identify the framework of benchmarking on valuation method that most relevant to the distinctive location and property type .The initial study will provide input for deeper study on valuation method, strength , limitation and factor that affect the price in predicting the property value. The input of the literature will exposure researcher to further examine the valuation method and assess the impact of surrounding infrastructure development to respective real property price movement.

Key word: Real property valuation, infrastructure, Price

Introduction

Real property investment play a critical role as it was part of the portfolio investment that act as a wealth preservative tool in financial planning .Therefore, the determinant of the valuation of such product is critical to various stakeholder namely investor, bank ,regulator, etc. The study will explore various factors and studies by previous author on the determinant of property value. In further ,it will further identify the most effective valuation method that explore by recent literature done in Europe and USA .On the meantime local study on Malaysia property market and related variable will be explore for follow up research with refined variable.

Literature review

Market value define as exchange price of property as it was sold in an open market (Pagourtzi, Assimakopoulos, Hatzichristos, & French, 2003)

According to (Rahadi, Wiryono, Koesrindartoto, & Syamwil, 2013), the study on Jakarta Metropolitan Region found that   " design, brand, facilities, reputation, reinvestment value, pricing policy, and speculative behavior " contribute to property price.

Another study on demand of green building identify concept of Return on investment (ROI) and it dimension such as capital appreciation, higher rental income and improved cost saving leading the price movement of green building (Isa, Rahman, Sipan, & Hwa, 2013).

(Isa et al., 2013) also highlighted the special risk are affecting the investment of green building with following concern: "physical risk, risk of liability to third parties; tenant risks, financial risks due to grant of the lease review; economic risk of building such as obsolescence."

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

427

(Azmi, Azhar, & Nawawi, 2012) explore the relationship between air quality and residential property market value. Author use Air Quality Index as air quality indicator and Terrace House Index under Malaysia Housing Index (MHI) as proxy for property market. The study found a positive significant relationship between the two indicator in Malaysia market.

Methodology

Two major stream of valuation was highlighted by (Pagourtzi et al., 2003) namely traditional and advanced valuation method. Traditional method include: Comparable, investment/income, profit, development/residual/contractor, multiple regression, stepwise method. While advanced valuation method include artificial neural network, hedonic pricing, spatial analysis, fuzzy logic, and autoregressive integrated moving average (ARIMA).

According to similar study by (Pagourtzi et al., 2003, p. 17),mainstream literature from Europe and united state of America emphasis comparable method as an accurate and reliable method. Such method use similar property in the geographical area as the proxy to determine the price of the similar property.
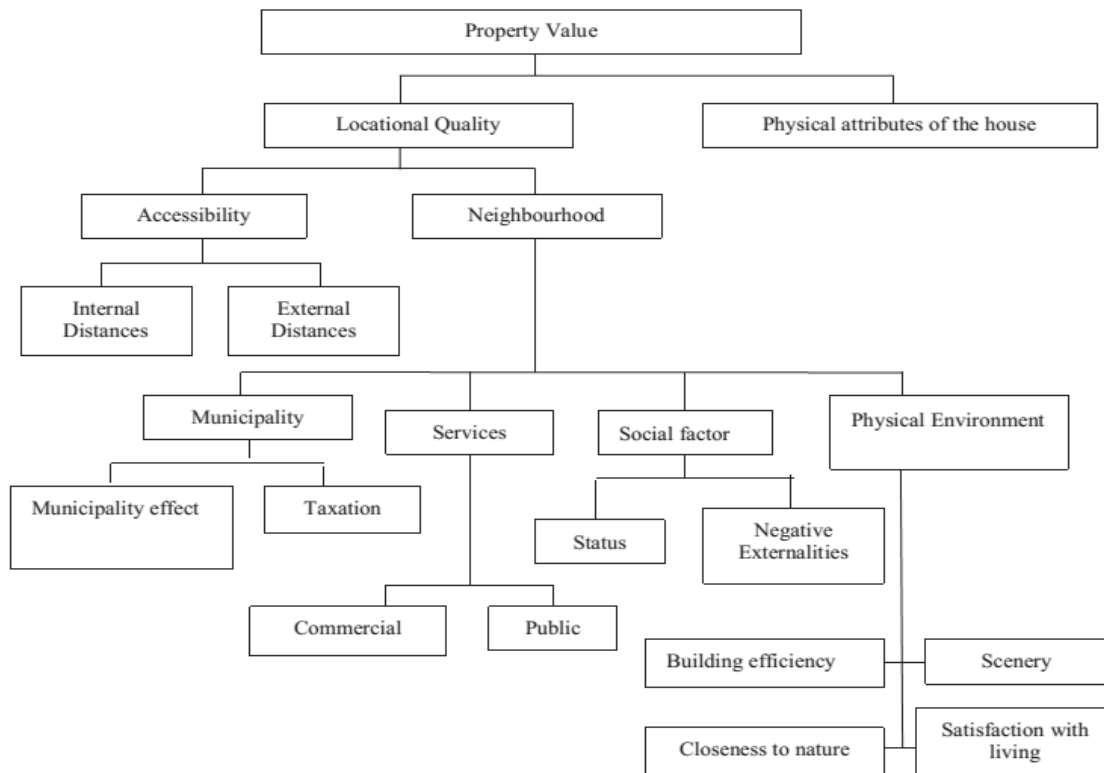
Hierarchical structure determination of value of residential real estate .Source: Tom Kauko (2003), Residential property value and location externalities cited by (Azmi et al., 2012)

Data analysis

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

428

Base on various valuation method, the following information are needed in order to further explore the topic in deeper end. The data include: location, grantor, grantee, recording data, date, sale price, financing, unit of comparison, lot dimension, configuration and size, physical and topographic characteristic, zoning and utilities, and finally environment influence.(Pagourtzi et al., 2003, p. 8)

(Azmi et al., 2012) study base on sample of air quality in Selangor on terrace house with following Air Pollutant Index classification information from department of environment.

API scale	Air Quality
0 – 50	Good
51 – 100	Moderate
101 – 200	Unhealthy
201 – 300	Very unhealthy
301 and above	Hazardous

Air Pollutant Index (API); Source:DOE, Air Pollutant Index Management System (APIMS), (2012) cited by (Azmi et al., 2012)

State and administrative district	Population	Average annual population growth rate	Number of living quarters	Number of household
Gombak	682,996	2.40	201,902	171,718
Klang	848,149	2.76	234,926	206,262
Kuala Langat	222,261	1.45	59,445	50,417
Kuala Selangor	210,406	2.67	58,050	49,419
Petaling	1,782,375	4.09	519,698	481,954
SabakBernam	106,158	-0.65	29,183	25,443
Sepang	212,050	7.81	58,607	50,444
Ulu Langat	1,141,880	2.78	326,278	292,177
UluSelangor	205,049	3.26	81,871	48,035
SELANGOR	5,411,324	3.17	1,569,978	1,375,869

Population by district for state of Selangor; Source: Department of Statistics, (2010) cited by (Azmi et al., 2012)

Finding

The finding by (Azmi et al., 2012) found that sample district with figure: Petaling District (r = 0.793, N = 5, p< 1.0) "the results chowned Air Pollution Index in Petaling District (Annually) increases, the House

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

429

Price Index in Petaling District (Annually) will also increases; in which it was a positive correlation." The finding found that the relationship of air pollution and house price is in positive relationship. To further study on this topic with higher clarity, proxies such as economic development of an area will be utilise in examines the relationship toward the property price movement. The potential variable under the concept of infrastructure development include number of car on the road etc.

Conclusion

The initial exploration of various variables in the literature helps to refine the direction of study base on international benchmarking standard as well on Malaysia context for real property valuation. To further explore the topic in deeper clarity, geographical distribution of job supply and quality of job supply will be a potential proxy's indicator on forecasting property market price.

References

Azmi, A. S. M., Azhar, R. F., & Nawawi, A. H. (2012). The Relationship Between Air Quality and Property Price. *Procedia - Social and Behavioral Sciences*, *50*, 839–854. doi:10.1016/j.sbspro.2012.08.086

Isa, M., Rahman, M. M. G. M. A., Sipan, I., & Hwa, T. K. (2013). Factors Affecting Green Office Building Investment in Malaysia. *Procedia - Social and Behavioral Sciences*, *105*, 138–148. doi:10.1016/j.sbspro.2013.11.015

Pagourtzi, E., Assimakopoulos, V., Hatzichristos, T., & French, N. (2003). Real estate appraisal: a review of valuation methods. *Journal of Property Investment & Finance*, *21*(4), 383–401. doi:10.1108/14635780310483656

Rahadi, R. A., Wiryono, S. K., Koesrindartoto, D. P., & Syamwil, I. B. (2013). Attributes Influencing Housing Product Value and Price in Jakarta Metropolitan Region. *Procedia - Social and Behavioral Sciences*, *101*, 368–378. doi:10.1016/j.sbspro.2013.07.211

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

430

The adoption of e-banking among rural SME operations in Malaysia: An integration of TAM and TPB

Chong Yee Lee[a], Seow Ai Na[b], Lee Eng Heng[c]

[a]UniversitiTunku Abdul Rahman, Malaysia, chongyl @utar.edu.my
[b]UniversitiTunku Abdul Rahman, Malaysia, seowan @utar.edu.my
[c]UniversitiTunku Abdul Rahman, Malaysia, leeeh@utar.edu.my

Abstract

To enhance the productivity of small and medium enterprises (SMEs) in Malaysia, several policies encouraging the use of ICT in rural areas were introduced by the government. However, encouraging the use of ebanking among rural SMEs is indeed a challenging task. This study integrates the TAM and TPB models because the rural SME operators' intention to adopt a relatively newly technology depends not solely on their behavioural belief (reflected by the constructs of PU, PEOU and attitude) but also on normative belief (SN construct) and their ability to control the skills or resources (PBC construct). Consistent with past studies, the present study results support the structural relationships among the constructs. PU and attitude play the primary roles in predicting the SME operators' intention to use ebanking. Attitude can be influenced by PU and PEOU. Therefore, to encourage the use of ebanking, banks should (1) promote the usefulness of ebanking application, and (2) educate rural business operators to use ebanking. The impact generated by SN is relatively low because the rural business persons are independent in deciding their banking affairs and generally they are not computer illiterate. This corroborates the government's policy to educate the rural community in the use of computer. In summary, bank management should consider business operators' behavioural believes when strategizing their ebanking promotion plans.

Keywords: Integration between TAM and TPB, Behavioural belief, Normative belief, Ability to control skills and resources

Introduction

Ebanking or online banking includes bot mobile banking and internet banking (Laforet & Li 2005; Sripalawat et al., 2011). Mobile banking can be connected by using wire and wireless devices. Ebanking provides various services, such as payments of bills, purchases of banks' products, monetary transfer between customers' accounts, viewing bank statements and account balances, and loan application. Usage of ebanking services is growing rapidly because the banks' customers can bypass the time-consuming counter service by using ebanking anytime and anywhere via online.

In Malaysia, small and medium enterprises (SMEs) are defined as follows. According to Bank Negara Malaysia in its e-circular dated 6 Nov 2013, the sales turnover of manufacturing SMEs is less than MYR50 million or employed less than 200 full-time employees. For services and other sectors, the sales turnover should not exceed MYR20 million or not more than 75 workers. The SMEs in Malaysia had

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

431

contributed 32% to the nation's gross domestic product and the contribution is expected to rise to 41% by 2020, said Datuk Seri Mustapa Mohamed, the Minister of International Trade and Industry (MITI) (The Star online, Feb 18, 2014).

Multi-national companies have begun to include local SMEs in their global supply chain operation. In the near future, the local SMEs should be able to expand into the export market. Online financial services are expected to be one of the main instruments to be used in global business. Therefore, wide availability of online services could enhance rural SMEs' usage of e-banking for the development of local economic sectors such as agriculture and tourism. Nevertheless, encouraging the use of ebanking among rural SMEs indeed is a challenging task. Studies investigating factors that can improve ebanking users' satisfaction and loyalty have been long studied. Yet, comprehensive research studying the relationships between ebanking adoption and the following variables - behavioural belief, normative belief, and ability to control skills or resources – among SME operators in Malaysia's rural areas are less common.

This article will examine the structural relationships between the six constructs from the perspective of rural SME operators' perception: namely, perceived usefulness (PU), perceived ease of use (PEOU), Attitude (A), subjective norm (SN), perceived behavioural control (PBC), and intention to use e-banking by integrating the Technology Acceptance (TAM) and Theory of Planned Behaviour (TPB) models.

Generally, this article presents two contributions. From the perspective of managerial implication, the study's findings can assist banks' management to develop adaptive promotional and management strategies in online context. From the perspective of theoretical contribution, it underlines the importance of integrating TAM and TPB to better understand the rural SME operators' intention to adopt a relatively new system.

Theoretical Frameworks of Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM) and Theory Planned Behavior (TPB)

In the context of the adoption of ebanking in rural areas, TRA (Fishbein and Ajzen, 1975) is used in this study to explain the relationships between SME operators' attitude towards the use of ebanking (intention to use e-banking will increase if perceptions of outcomes are positive), subjective norm (pressures from others to perform or not to perform certain behaviours), intention to use ebanking, and actual usage of ebanking.

However, additional constructs are required to be included in this study to better reflect the adoption of a new emerging technology. Davis (1989) had suggested two new constructs to be incorporated into his revised TRA model, or TAM. The first construct, PEOU is used in this study to refer to individuals' perceived worries, problems, and restrictions that they need to face upon using ebanking. If the persons feel that it is not difficult to use a new technology, they are expected to have higher intention to adopt the ebanking system. The second construct, PU, is used in this study to assess individuals' perception of the usefulness of ebanking. If the technology is perceived to be useful in their work or life, they may express greater intention to use ebanking. PU is not only expected to have direct effect on individuals' behavioural intention, but also partially mediate the effect of PEOU on the intention to adopt ebanking (Davis, Bagozzi, & Warshaw, 1989). Many past studies concluded that the TAM's fundamental constructs, PU and PEOU, played an important role in explaining rural people's intention to use ebanking (Luarn & Lin, 2005; Dasgupta et al., 2011).

Fishbein and Ajzen (1975) extended the TRA model as well by including a new variable, perceived behavioural control (PBC). PBC discusses the factors that may encourage or inhibit individuals' performance of certain actions. PBC is composed of two components: (1) individuals' ability to use the ebanking application, termed as self-efficacy and (2) availability of facilitating conditions such as government and technological support that are required to engage individuals to use ebanking (Wadie Nasri & Lanouar Charfeddine, 2012).

TPB and TAM models are integrated for this study because rural SME operator's intention to adopt a relatively newly emerging technology depends not solely on their behavioural belief, but also on the persons' normative belief, and their ability to control the skills or resources.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

432

Current Research Model

The authors integrate the TAM and TPB model so that the current study can produce a more robust model that can predict SME operator's intention to use ebanking in rural areas of Malaysia. Figure 1 shows the research model of the current study.
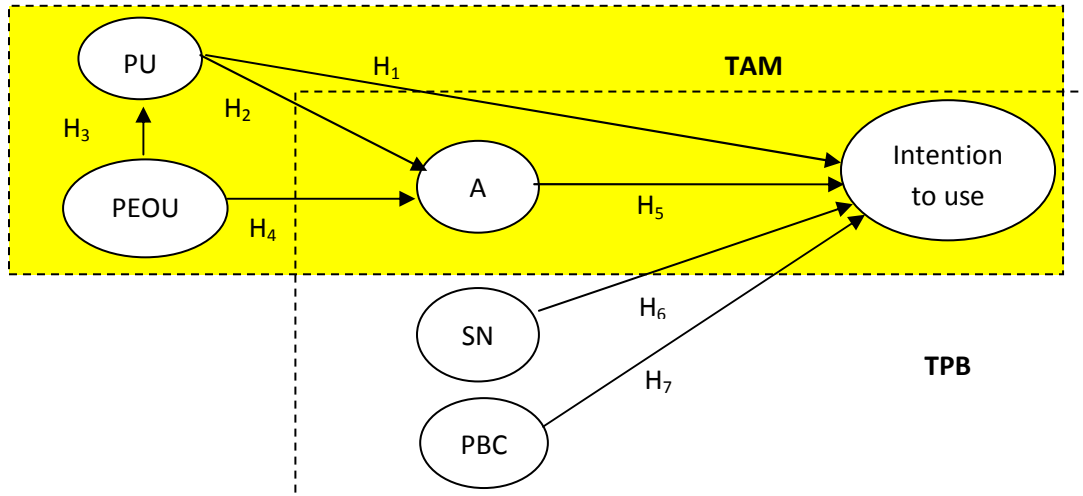

Fig 1. Proposed research model

Development of current study's hypotheses

PU reflects the degree to which a person believes that using a particular system would enhance his or her job performance (Davis et al. 1989). Many studies had supported the direct effect and the mediating effect of attitude between PU and individuals' behavioural intention (Luarn & Lin, 2005; Pavlou & Fygenson, 2006; Gu, Lee, & Suh, 2009; Dasgupta et al., 2011). PU can have indirect effect on intention to use ebanking as well (Lee, 2009; Wadie Nasri & Lanouar Charfeddine, 2012). Therefore, this study predicts that the tendency to use ebanking will increase if users perceive that the self-serviced banking operation is more useful. The authors test the following hypotheses.

- **H1:** PU can influence SME operators' intention to use ebanking positively
- **H2:** The attitudes of SME operators can mediate the effect of PU on their intention to use ebanking

PEOU refers to the extent to which the customer feels a particular technology will be easy to learn and use (Davis et al. 1989). TAM explains that the effect of PEOU on individuals' intention to use ebanking is mediated by their PU and attitudes towards the service (Davis et al. 1989). The indirect relationships between the three constructs are supported by studies conducted by Lee (2009), and Wadie Nasri and Lanouar Charfeddine (2012). This implies that if ebanking is perceived as easy to use, (1) the users' performance in completing the banking affairs will improve, and (2) the person will develop favourable attitude which then leads to higher intention to adopt the system. Therefore, this study proposes the following hypotheses:

- **H3:** The effect of PEOU on consumers' intention to use ebanking is mediated by PU
- **H4:** The attitudes of SME operators can mediate the effect of PEOU on their intention to use ebanking

In forming attitude towards the use of ebanking, individuals will first view and evaluate the outcomes generated from their behaviour. Individuals have positive attitude towards ebanking if they favour the outcome generated by using ebanking, such as time saving. Many past studies (Pavlou & Fygenson, 2006; Lee, 2009; Wadie Nasri & Lanouar Charfeddine, 2012) had concluded with favourable outcomes; therefore we are testing the following hypothesis:

- **H5:** Attitude positively influence user's intention to use ebanking

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

433

Studies conducted by Pavlou and Fygenson, (2006); Lee, (2009); and Wadie Nasri and Lanouar Charfeddine, (2012) showed that subjective norm (SN) had direct positive effect on consumers' intention to use ebanking. SN assesses the influence of referents' opinions on motivating an individual's behavioral intention to use ebanking or based on somebody's opinions or feelings rather than on facts or evidence. If a person's society such as relative, friends and acquaintances impose a stronger pressure, that person is expected to have a higher intention towards a specific behaviour. Therefore, it is reasonable to conclude that SN can affect individuals' intention to use ebanking.

- **H6:** Subjective norm positively influence user's intention to use ebanking

Perceived behavioural control (PBC) composes of two dimensions: self-efficacy (SE) and controllability (Pavlou & Fygenson, 2006). Self-efficacy refers to a person's capability to use the online system for banking matters. If the person feels that he or she could use the online application to complete their banking affairs, the intention to use the system will increase (Luarn & Lin, 2005; Pavlou & Fygenson, 2006; Gu, Lee, & Suh, 2009; Lee, 2009; Wadie Nasri & Lanouar Charfeddine, 2012; Yu, 2012). Controllability refers to an individual's ability to manoeuvre the technological support given by public and private sector. If the person feels that his or her ability to complete the ebanking application will be enhanced after getting the technical support, the behavioural intention to use ebanking will be stronger. Therefore, the expected relationship between PBC and intention to use ebanking is as follows.

- **H7:** Perceived behavioral control positively influences user's intention to use ebanking

Research Methodology
Measuring the constructs
To ensure content validity, the items used to measure the study's constructs were adapted from past studies for the context of online banking in this study. Items for PEOU and PU were modified from the following past studies, Lee (2009), and Wadie Nasri and Lanouar Charfeddine (2012). Each of the three items for PBC and SN were adapted from the Lee (2009). The four items used to measure the construct of attitude were adopted from Wadie Nasri and Lanouar Charfeddine's (2012) study. The intention to use's items came from Gu, Lee, & Suh, 2009.

 The items' proposition was designed by using a seven-point Likert scales, ranged from "strongly disagree" and "strongly agree. Pilot test had been undertaken to test selected SME operators' understanding of the questionnaire's propositions.

Data collection procedure
The study data was gathered in November, 2013 from a sample of SME operators' respondents who live in two rural areas. Questionnaire was prepared in two languages, English and the national language; Bahasa Malaysia. This is to ensure the Malay respondents; the main ethnic in Malaysia can understand the questionnaire better. Questionnaire was distributed to the respondent by visiting small and medium companies located in the study area.

Quota sampling is employed in this study. Firstly, two rural areas were selected for data collection: Pendang, located in Kedah state and Felda Ijok, in the state of Perak. The determining factors for the selection of the research locations are the facts that the locations comprise economic development corridor zones in rural areas and have internet connections. Secondly, in each location, questionnaires were distributed using convenience sampling. Probability sampling is ideal but in this study, getting response from the SME operators who are willing to participate and provide truthful data indeed is challenging.

Data Analysis
To analyse the current research model, structural equation modelling (SEM) is used to investigate the relationships among the multiple interrelated constructs and dependent construct simultaneously. SmartPLS software is used to estimate the partial least squares (PLS) regression. This analysis method is less restrictive and suitable for smaller sample size studies and in the situation when collinearity may

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

434

exist among factors. The constructs validity is tested using convergent and discriminant validity analyses. Cronbach's alpha and composite reliability are conducted to test the constructs' reliability.

Data Findings

Descriptive analysis

The study collected 124 answered questionnaires. 85.6% of the respondents were aware of the availability of ebanking service. This finding corroborates banks' decision to promote the application of ebanking in rural areas of Malaysia. However, only 67.8% of the respondents were using ebanking although 84.7% of them trust that their ebanking transaction can be done accordingly. Although the findings show that respondents were aware of and trust the ebanking service, only a small portion was using the service. Furthermore, almost all SME respondents owned a computer and/or mobile phone. Consequently, it is useful to find out the reasons that have impeded the respondents' intention to use ebanking.

Validity, reliability and multicollinearity analyses

Convergent validity is a test conducted to assess whether the items used to measure a construct provide similar or convergent result. Three criteria can be used to measure the convergent validity of items (Fornell & Larcker, 1981). (1) The factor loading score of each item of a construct should be significant at least at 0.5, (2) The Cronbach's alpha score of each construct should be at least 0.8, and (3) the average variance extracted (AVE) from each construct should be at least 0.5. The convergent validity of the construct is questionable if the AVE is less than 0.5 because the variance due to measurement error is greater than the variance due to the construct. Table 1 shows that the three criteria is fulfilled.

Table 1. Validity and Reliability Analyses

Construct	Item	Factor loading	Average Variance Extracted (AVE)	Composite Reliability	Cronbach's alpha
Perceived Usefulness	PU1	0.890	0.727	0.914	0.867
	PU2	0.888			
	PU3	0.870			
	PU4	0.753			
Perceived Ease of Use	PEOU1	0.938	0.791	0.919	0.869
	PEOU2	0.802			
	PEOU3	0.922			
Attitude	At1	0.822	0.798	0.940	0.915
	At2	0.875			
	At3	0.937			
	At4	0.935			
Subjective norm	SN1	0.917	0.861	0.949	0.919
	SN2	0.929			
	SN3	0.938			
	SE4	0.797			
Perceived behavior control	PBC1	0.910	0.766	0.907	0.838
	PBC2	0.914			
	PBC3	0.796			
Intention to Use ebanking	BI1	0.903	0.830	0.936	0.895
	BI2	0.907			
	BI3	0.922			

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

435

Contradictory to the convergent validity, discriminant validity is used to assess whether the items used to measure one construct are different from the items used to measure other constructs. Table 2 shows that the correlation scores between the items of two different constructs were lower than the square root of the AVE scores shared by all items within a construct. Based on the convergent validity and discriminant validity results, the construct validity of this study thereby scored satisfactory.

Table 2. Discriminant validity

	PU	PEOU	Attitude	SN	PBC
PU	.853				
PEOU	.596**	.889			
Attitude	.649**	.562**	.893		
SN	.235**	.074*	.167*	.927	
PBC	.600**	.532**	.533**	.372**	.911

* Significant at $p < 0.05$
** Significant at $p < 0.01$

The result of the study's reliability analysis can be checked via the following test. If a respondent is reliable, the score given to each item that is used to measure a construct shouldn't be widely different. The internal consistency of measures can be reflected by the results of two tests, Cronbach's alpha and composite reliability. The composite reliability score will reflect the overall reliability of items used to measure a construct. On the other hand, Cronbach's alpha is useful to measure the reliability of each item of a construct. From Table 1, as the scores of both composite reliability and Cronbach's alpha are more than the benchmark of 0.7, the construct reliability of the study's data was adequate (Fornell and Larcker 1981).

Multicollinearity analysis is conducted to check whether the independent constructs are closely related in some way. Two possible ways that can be carried out if the constructs are highly correlated: (1) the number of collinear constructs needs to be reduced, and (2) combine the collinear constructs to form a new construct. Table 2 shows that the correlations between the investigated constructs were low and significance level of 0.05. Therefore, multicollenearity is not an issue in this study.
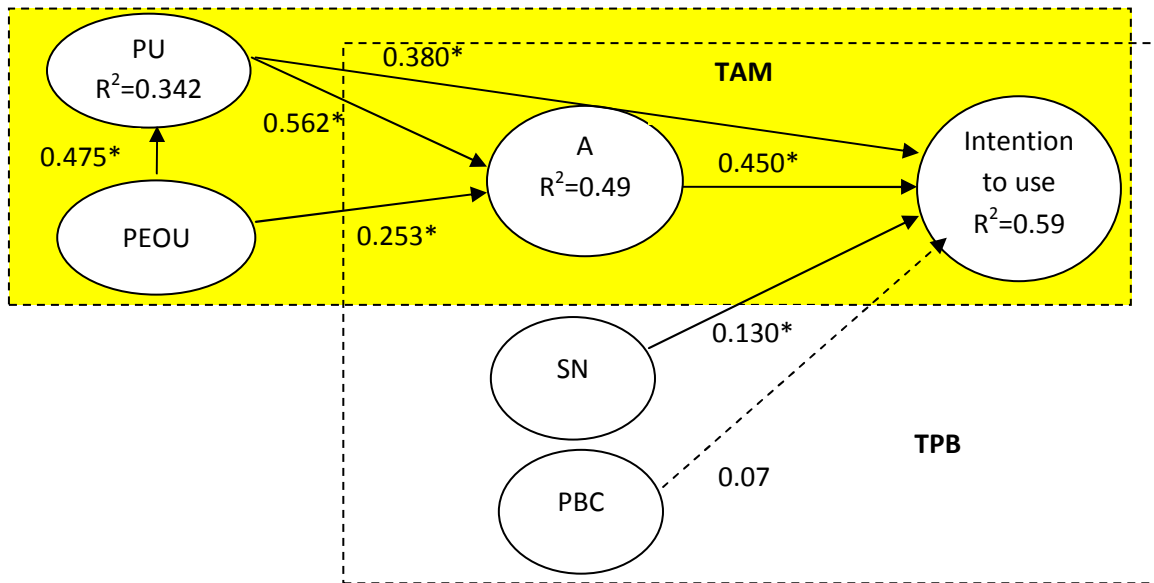
Structural model analysis

The structural relationship between investigated constructs is shown in Fig.2. The intention to use digital banking is predicted by PU ($\beta = 0.380$), attitude ($\beta = 0.450$), subjective norm ($\beta = 0.130$). The three constructs explained 59% of the variance in intention to use (shown by $R^2 = 0.59$, coefficient of determination). As a result, Hypotheses 1, 5, and 6 are all supported. However, PBC shows no significance relationship with intention to use ebanking. Thus, Hypothesis 7 is not validated

The direct effect of PU is 0.380 on intention to use ebanking. On the other hands, the indirect effect caused by PU on intention to use ebanking via attitude is 0.562. Therefore, the total effect of PU on intention to use is 0.213. The result has confirmed the primary role played by PU on the SME operator's intention to use ebanking in Malaysia's rural areas and validates Hypothesis H2.

The respondents' attitude is predicted by PU ($\beta = 0.562$) and PEOU ($\beta = 0.253$). The constructs explained 49% of the total variance in attitude. PU is predicted by PEOU ($\beta = 0.475$) and the variable explained 34.2% of the total variance in PU. The result validates H3.

Figure 2 also shows that the SME operators' intention to use ebanking is predicted indirectly by PEOU via PU. The indirect effect caused by PEOU on intention to use ebanking via PU is 0.181 and the significant result at $p<0.05$ has validated Hypothesis 3. The respondents' intention to use ebanking is predicted indirectly by PEOU via attitude as well. The indirect effect caused by PEOU via attitude is 0.114 and the significant result validates Hypothesis 4.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

436

*P<0.05
Dotted line reflect no significant relationship

Fig. 2. Result of structural modelling analysis

Discussions

The data findings support the directional linkages among the current research model's constructs. Overall, the result suggests that the integrated model can explain 59% for intention to use ebanking and 49% for attitude towards ebanking among SME operators in rural areas of Malaysia. Intention to use ebanking is influenced positively primarily by respondents' perceived usefulness of ebanking. The result is consistent with the following previous researchers' findings, Pavlou and Fygenson, (2006); Lee (2009); and Wadie Nasri and Lanouar Charfeddine (2012). Similarly, subjective norm affect the total variance in intention to use at the same magnitude (β = 0.130). The significant positive impact is consistent with studies conducted by Pavlou and Fygenson, 2006; Lee, 2009, Wadie Nasri and Lanouar Charfeddine, 2012.

However, the study's result shows no significant relationship between perceived behavioral control (PBC) and intention to use ebanking. The following were the propositions of the PBC's items extracted from the questionnaire and measured by the seven-points Likert scale.
- I would be able to use the ebanking well for my financial transactions
- using ebanking would be entirely within my control
- I have the resources, knowledge, and ability to use ebanking

The no sginificant relationship shows that the respondents are not confident of their ability to complete the ebanking transaction yet.

The significant indirect effect of PU (via attitude) on intention to use ebanking is consistent with Luarn and Lin (2005), and Dasgupta et al., (2011) studies. Although PEOU does not explain the total variance in intention to use directly, PEOU can boast the influence of PU on SME operators' intention to use ebanking in rural areas. The finding is similar to studies conducted by Pavlou and Fygenson, 2006; Lee, 2009; Wadie Nasri and Lanouar Charfeddine, 2012.

Implications to Public and Private Sectors

Managerial implications

The results of this study indicate important issues related to SMEs' intentions to use ebanking. PU is one of the main instruments in explaining rural SME operators' intention to use e-banking. In order to convince more SMEs to use ebanking, the banks should promote the benefits of ebanking's

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

437

aggressively. Various banking services such as payment of bills and monetary transactions between bank holders' accounts can be done instantly at anytime and anywhere if the online service is available. The users could use the time-saving to perform other business or personal matters.

The current study's result shows that respondents' attitude is also one of the prime factors that can influence ebanking adoption. Attitude can be predicted by PU and PEOU. Therefore, to encourage the use of ebanking, banks should (1) promote the usefulness of ebanking application, and (2) educate more rural business operators to use ebanking so that they can learn to operate the ebanking easily. Banks should assign their staff to demonstrate how to use the new technology. If the bank consumers found that the banking transaction can be completed easily, their intention to use ebanking in future will increase.

The relative low impact of the influence of subjective norm and no significance impact of perceived behavioral control implies the following: (1) the rural SME operators are less keen to behave just to impress their relatives or acquaintances. This shows that they are independent in deciding on their banking affairs; (2) most of the respondents are actually not computer illiterate. This corroborates the government's policy to educate the rural people on computer usage. Therefore, banks shouldn't invest too much time and resources to develop the websites' interface; and (3) the collaboration between the government and private sector had indeed encouraged better provision of broadband coverage in rural areas. As most of the SME operators are already using mobile phones and computers, they may feel that they can learn how to control and complete the ebanking transaction soon.

In summary, the banks' managements should consider the business operators' behavioural belief when strategizing their ebanking promotion plans.

Academician implications

TPB and TAM are the most frequent behavioural theories used in ebanking literature. Many studies extend the models by adding one or a few constructs. For example, Luarn and Lin (2005) extended the TAM by adding three constructs, perceived credibility, perceived self-efficacy, and perceived financial cost. Data were distributed to people who attended an e-commerce symposium. Meanwhile, Hanudin Amin et al (2008) added the construct of perceived credibility in the TAM as well. On top of that, he had examined a private bank account holders' perception of the availability of mobile banking's information and the impact of normative pressure on the respondents' behavioural intention.

Currently, more studies extend the literature by integrating the two behavioural models, TPB and TAM. For example, Lee (2009) collected data by distributing online questionnaire to a private bank user and 87.32% of Wadie Nasri & Lanouar Charfeddin's, (2012) respondents were tertiary students and graduates.

In line with the current practice, this study has integrated the TPB and TAM. However, compared to past studies, the current study investigates a more defined bank user. The sampling method is clearly defined as well so that the chosen sample can represent the population better. Collecting data using online devices is cost- and time-saving, but cautious moves should be undertaken to reduce the sampling and non-sampling errors.

Many studies confirmed that integrated model is better than relying solely on a theory or model. This implies that research should continue to integrate other technology acceptance and/or behavioural model(s) that are appropriate for the studied population.

Conclusions and future research

The study integrates the TAM and TPB models because the rural SME operator's intention to adopt a relatively new emerging technology depends not solely on their behavioural belief (reflected by the constructs of PU, PEOU, and attitude) but also on the persons' normative belief (SN construct) and their ability to control the skills or resources (PBC construct). Consistent with past studies, the result shows that the four constructs (except perceived behavioural control) have significant impact in predicting rural SME operators' intention to use ebanking. PU and attitude play the primary roles in predicting the SME operators' intention to use ebanking

Cares were undertaken to ensure the generalization of the study's result. Conducting probability sampling to reduce the biasness of result is always ideal. However, getting response from chosen respondents is tough. Quota sampling is used so that the study locations can represent the SME

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

438

operators in Malaysia's rural areas better. Collecting truthful data will generate more meaningful results; however, generalizability could be enhanced by surveying more study locations.

Finally, the finding shows that 59% of the respondents' intention to use ebanking can be explained by the four constructs. The authors believe that in future, it is worth to continue confirming the impact of perceived behavioural control on intention to use ebanking among rural SME operators and investigate other factors that are not examined in this study as well.

REFERENCES

Dasgupta, S., R. Paul, and S. Fuloria. (2011). Factors affecting behavioral intentions towards mobile banking usage: Empirical evidence from India. *Romanian Journal of Marketing*, *3*(1), 6-28.

Davis, F.D. (1989). Perceived usefulness perceived ease of use and user acceptance of information technology. *MIS Quart*, *13*(3), 318–40.

Davis, F.D., R.P. Bagozzi, and P.R. Warshaw. (1989). User acceptance of computer technology: a comparison of two. *Manage Science,* 35(8), 982–1002.

Erikson, R., J.H. Goldthorpe, M. Jackson, M. Yaish, and D.R. Cox. (2005). *Class Differentials in Educational Attainment*. Proceedings of the National Academy of Sciences, 102, 9730-33.

Fishbein, M., and I. Ajzen (1975). Belief, intention and behaviour: an introduction to theory and research. Addison Wesley.

Fornell C, and Larcker D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal Marketing Research*, *18*(1), 39–47.

Gu, J.C., S.C Lee, & Y.H Suh. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications, 36*, 11605–16.

Hanudin Amin, Mohd Rizal Abdul Hamid, Suddin Lada, and Zuraidah Anis. (2008). The adoption of mobile banking in Malaysia: The case of Bank Islam Malaysia Berhad. *International Journal of Business and Society*, *9*(2), 43-53.

Laforet, S., and X. Li. (2005). Consumers' attitudes towards online and mobile banking in China, *International Journal of Bank Marketing*, *23*(5), 362-80.

Luarn, P. and H. H. Lin. (2005). Toward an understanding of the behavioral intention to use mobile banking, *Computers Human Behavior*, *21*, 873-91.

Pavlou, P.A., and Fygenson, M. (2006), Understanding and Predicting Electronic Commerce Adoption: An Extension of the Theory of Planned Behaviour. *MIS Quarter l,* 30(1), 115-43.

Sripalawat, J., M. Thongmak, and A. Ngramyarn. (2011). M-banking in metropolitan Bangkok and a comparison with other countries, *The Journal of Computer Information Systems, 51*(3), 67-76.

Wadie Nasri and Lanouar Charfeddine. (2012). Factors affecting the adoption of Internet banking in Tunisia: An integration Theory of Acceptance model and Theory of Planned Behavior. *Journal of High Technology Management Research, 23*, 1-14.

Yu, C.S. (2012). Factors Affecting Individuals To Adopt Mobile Banking: Empirical Evidence From the UTAUT Model. *Journal of Electronic Commerce Research, 13*(2), 104-21.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

439

An Update on the Prediction of Malaysian Gold Prices using Box-Jenkins Approach

S. W. Wong[a], W. L. Beh[b]

[a, b]*Department of Physical and Mathematical Science, Universiti Tunku Abdul Rahman, Malaysia,*

[a]*siewon0620@hotmail.com*

[b]*behwl@utar.edu.my*

Abstract

Time series analysis and forecasting have become an important tool in different applications. Among the most effective approaches for analysing gold prices is the model introduced by Box and Jenkins, which is the Autoregressive Integrated Moving Average (ARIMA) model. This model involves past information on the variable under prediction. In this paper, we used Box-Jenkins methodology to build an ARIMA model for the selling prices of the *Kijang Emas* gold bullion (in MYR per ounce) for the period from 18th July 2001 until 30th January 2014. The series is not stationary in mean and variance so logarithmic transformation and first differencing on the series are proposed in this study. Various tests are performed to obtain the best model among the potential candidate models. The result suggests that ARIMA (2,1,0) is the most suitable model to be used for forecasting gold prices in short term. The forecast errors and prediction limits based on the technique of Minimum Mean Square Error (MMSE) are computed. The accuracy of the prediction is then measured by the mean absolute percentage error (MAPE).

Keywords: Gold prices, Autoregressive Integrated Moving Average (ARIMA), Forecasting

Introduction

Kijang Emas is the official and highly in demand national bullion gold coin in Malaysia. The selling prices of the *Kijang Emas* (in MYR per ounce) follow a random walk and nonstationary characteristics. Therefore, Box-Jenkins approach is good to be used s a forecasting model for gold prices as it is able to handle non-stationary data (Yaziz et al., 2013; Shafiee and Topal, 2010). Autoregressive Integrated Moving Average (ARIMA) model is one of the most frequently used models in this type of data. In fact, ARIMA models are powerful and flexible in predicting the future price from historical data as they contribute a basic methodology to model the effects of dependency from the data series (Yaziz et al., 2013; Schinka et al., 2012). Suitable ARIMA models will be determined so as to obtain models that will be precise enough for forecasting the *Kijang Emas* prices.

Khaemasunun (2006) proposed to use ARIMA(1,1,1) as the model of Thai gold prices from 1st Jan 2008 to 30th October 2005 by seeing the autocorrelation function (ACF) and partial autocorrelation function (PACF). Deepika et al. (2012) forecasted the monthly world gold prices from the period of January 1980 to June 2012 by using ARIMA(1,1,0) model and then applied the multiple regression analysis to identify the possible influencing factors which affected the gold prices. Abdullah (2012) had shown that ARIMA(2,1,2) was the most appropriate model to forecast *Kijang Emas* prices from the year 2002 to 2007 and this ARIMA model provided a better method for forecasting any changing factors. Khan (2013) developed Box-Jenkins ARIMA forecasting and recommended that ARIMA(0,1,1) be the best model to forecast the London gold price per ounce, in US Dollars from 2nd January 2003 to 1st March

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

440

2012. Miswan et al. (2013) developed Box-Jenkins ARIMA model to forecast *Kijang Emas* prices from 18th July 2001 until 25th September 2012.

The objective of this paper is to update and develop the Malaysian gold price model by using Box-Jenkins approach. The selected ARIMA model will then be used to forecast the future gold price. The forecasting of its prices is useful for investment purposes in Malaysia.

Methodology

This paper focuses on the daily selling prices of Malaysia's own gold bullion coins, *Kijang Emas* Gold Bullion Coins (in MYR per ounce) that were recorded from 18th July 2001 until 30th January 2014 with 3168 observations. The missing data are excluded. This daily gold price data set is collected from the website (Bank Negara Malaysia 2014). The time series analysis is done by using R software.

The ARIMA*(p,d,q)* model (Box and Jenkins, 1970) is given by

$$(1-\phi_1 B-\phi_2 B^2-\cdots-\phi_p B^p)(1-B)^d Y_t = \theta_0 + (1-\theta_1 B-\theta_2 B^2-\cdots-\theta_q B^q)a_t \qquad (1)$$

where *d* denotes the order of differencing in the series to achieve stationarity. When the original data is stationary and the integers *p* and *q* denoted as the orders of the model.

The Box-Jenkins modeling approach comprises of three main stages which are model identification, parameter estimation and diagnostic checking and model application (Montgomery et al., 2007). At the stage of model identification, the original data is plotted to observe their trends and stationarity. A time series data is stationary when the mean and the autocorrelation structure are constant over time. If the series are non-stationary then the transformation or differencing on the series will be needed to achieve stationary. The Unit Root test which is known as the Augmented Dickey Fuller (ADF) test is used for testing the stationary behavior and to check whether there is overdifferencing of the series (Cryer and Chan, 2008). We will identify the potential models based on the Unit Root test and then proceed to next stage.

The parameters in the selected models will be estimated by using maximum likelihood estimation (MLE) in the stage of parameter estimation. We need to check whether the stationary and invertibility conditions for the selected models are satisfied when fitting ARIMA model (Folarin and Iyiol, 2013). The white noise property of the residuals in the model will be examined. For a well fitted model, the errors should be normally distributed (Bisgard and Kulachi, 2011). The ACF plot of the residuals will be examined to check on the autocorrelation in the residuals. The normality of the residuals can be checked by using Shapiro-Wilks test and the normal quantile-quantile plot (Q-Q plot). Ljung-Box statistics is use to check whether the residuals are approximately white noise (Ljung and Box, 1978). The best model that been chosen will be used for forecasting purpose. We use the criterion of minimum mean squared errors (MMSE) to produce point forecast (Wei, 2006). The predicted values will be in terms of single-valued items and also in terms of confidence intervals. The accuracy of prediction is measured by the mean absolute percentage error (MAPE). The formula of MAPE is as follows:

$$MAPE = \left(\left(\sum_{t=1}^{n} \left| \frac{Y_t - \hat{Y}_t}{Y_t} \right| \right) / n \right) * 100\% \qquad (2)$$

where Y_t is the real prices, $\hat{Y}_t$ is the predicted values; *n* is the number of period.

Result Analysis and Discussion

From the time series plot of the original series in Figure 1, it is clear that the mean and variance is increasing and not stationary. The transformation and differencing on the series are needed so that the series is stationary in mean and variance. From Figure 2, Box-Cox power transformation plot suggests

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

441

the suitable transformation for this series, Y_t, are power transformation ($Y_t^{0.0559}$) and the logarithmic transformation ($ln\,Y_t$). This paper proposed to use the logarithmic transformation on this study since the λ equal to 0.0559 which is close to 0.
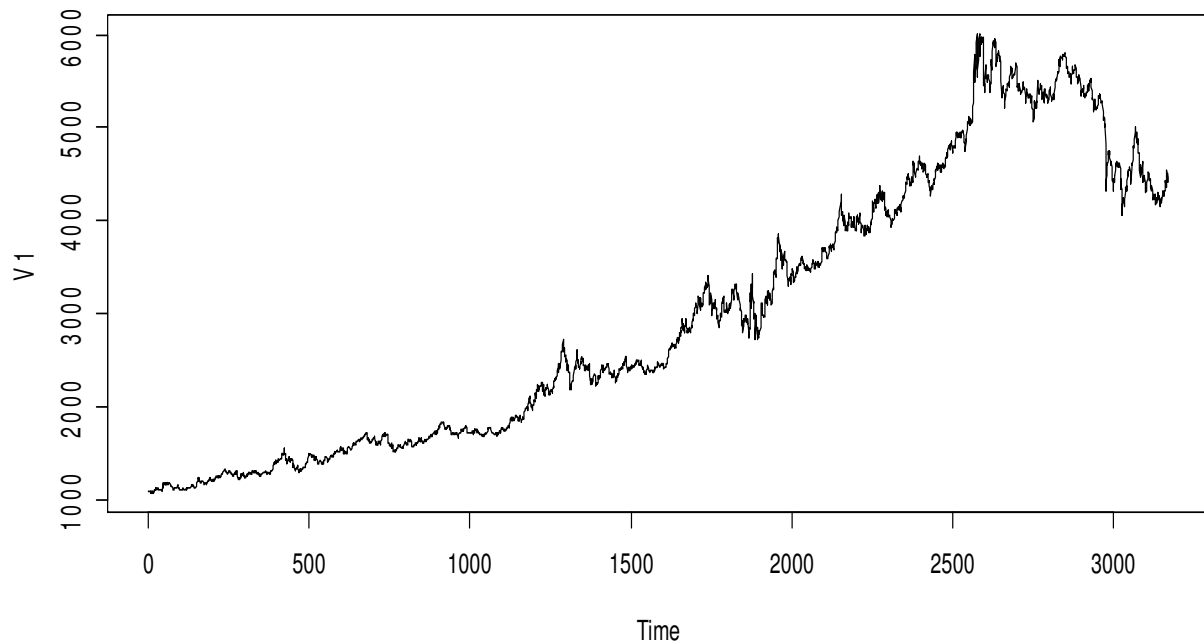

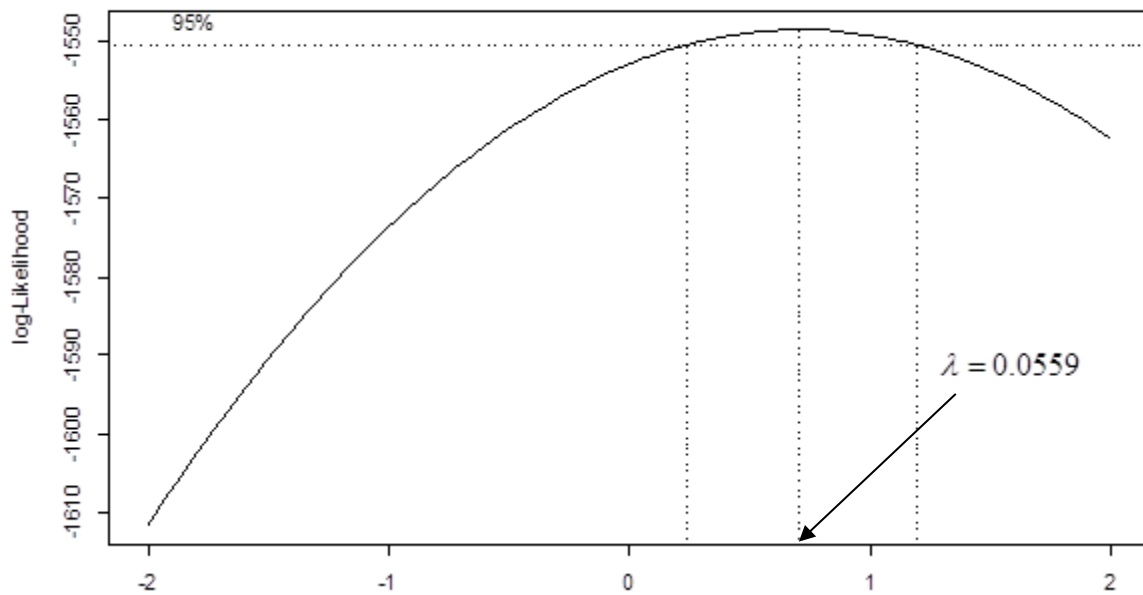**Figure 1.** Original series of *Kijang Emas* selling prices data

Figure 2. Box-Cox Power transformation plot for *Kijang Emas* selling prices data with $\lambda = 0.0559$

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

442

Table 1. The AIC, AICc and BIC values of ARIMA models that fulfil the stationary and invertibility

Statistics	Model		
	Logarithmic transformation, lnY_t and d=1		
	ARIMA(1,1,0)	ARIMA(1,1,1)	ARIMA(2,1,0)
AIC	-7.853734	-7.853959	-7.854974
AICc	-7.8531	-7.853323	-7.854338
BIC	-8.849906	-8.848218	-8.849233

condition

There are three suggested models, ARIMA(1,1,0), ARIMA(1,1,1) and ARIMA(2,1,0), which fulfil the criteria of stationary and invertibility condition. We then select the best model among the three potential candidates based on the smallest value of the Akaike Information Criteria (AIC), Corrected Akaike Information Criteria (AICc) and the Schwarz Bayesian Information Criterion (BIC). We notice that in Table 1, ARIMA(2,1,0) has the smallest value for AIC, AICc and BIC if compare to ARIMA(1,1,0) and ARIMA(1,1,1).

Abdullah (2012) had shown that ARIMA(2,1,2) was the most appropriate model to forecast *Kijang Emas* prices from the year 2002 to 2007. However, Miswan et al. (2013) suggested to use ARIMA(1,1,1) to forecast *Kijang Emas* prices from 18th July 2001 until 25th September 2012. ARIMA(2,1,0) with logarithmic transformation is the best model that fitted the series from 18th July 2001 until 30th January 2014 in this study. The model equation for ARIMA (2,1,0) can be expressed as

$$(1 + 0.0468\ B + 0.0432\ B^2)(1 - B)\ln Y_t = 0.0004 + a_t \qquad (3)$$

where $a_t \sim N(0,1)$.

Equation 3 is then used to forecast the prices. Figure 3 represents the forecasting results of ARIMA(2,1,0) with their ± 2 standard errors and the actual price for daily *Kijang Emas* prices. Figure 4 shows the comparison for real and forecasted values for ARIMA(2,1,0) from 3rd February 2014 till 14th February 2014. Table 2 shows the result of forecasted actual values and we notice that the forecast error for the first 10 values is small and acceptable.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

443
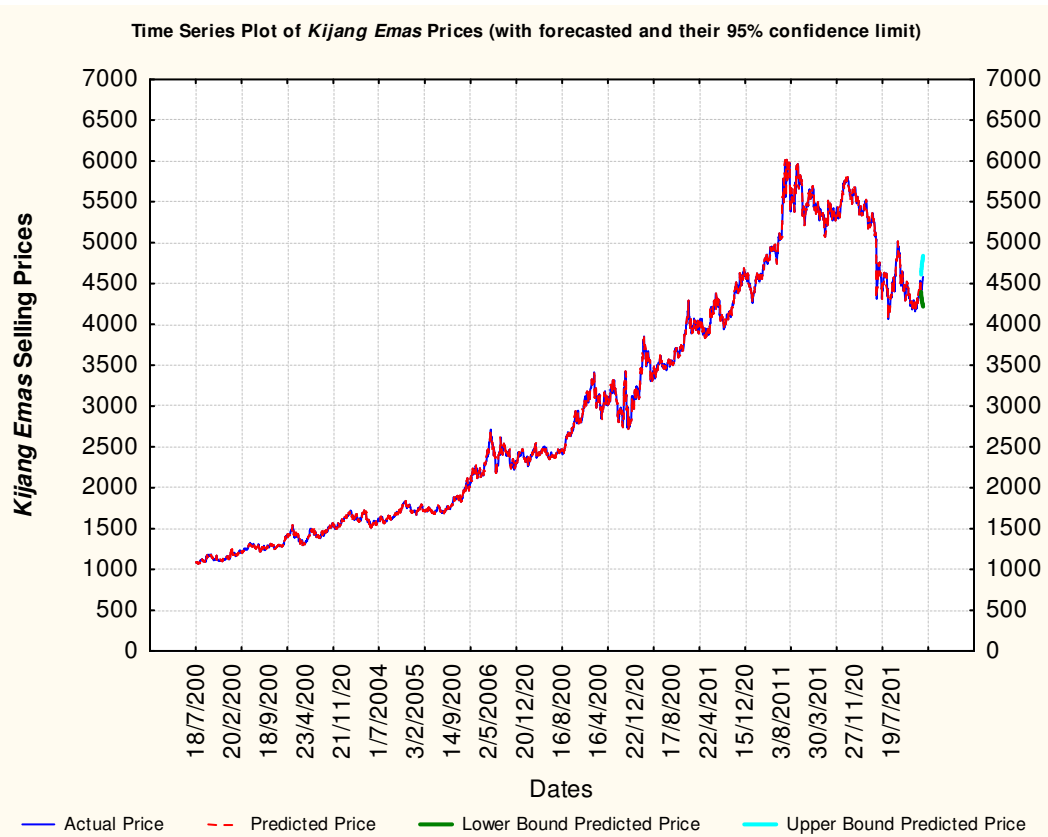
Figure 3. The comparison for actual price and predicted price (with forecasted and their 95% confidence limit) from 18th July 2001 till 14th February 2014

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

444
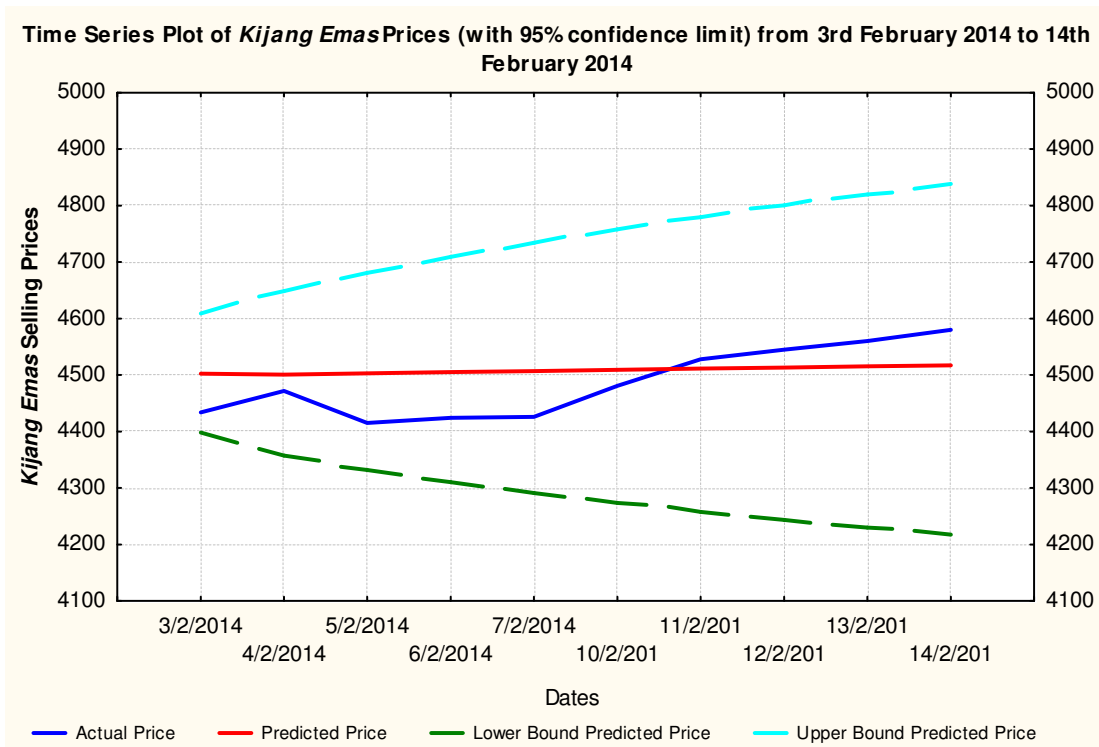
Figure 4. The comparison for actual price and predicted price with lower limit to upper limit from 3ʳᵈ February 2014 till 14ᵗʰ February 2014

Table 2. The comparison between actual price and predicted price from 3ʳᵈ February 2014 till 14ᵗʰ February 2014

Date	Actual Price, Y_t (in MYR)	ARIMA (2,1,0) , $\hat{Y}_t$ (in MYR)	Forecast Error, $\left| Y_t - \hat{Y}_t \right|$
3/2/2014	4434.00	4502.13	68.13
4/2/2014	4472.00	4500.71	28.71
5/2/2014	4415.00	4502.98	87.98
6/2/2014	4424.00	4505.14	81.14
7/2/2014	4426.00	4507.15	81.15
10/2/2014	4481.00	4509.17	28.17
11/2/2014	4528.00	4511.20	16.80
12/2/2014	4545.00	4513.23	31.77
13/2/2014	4560.00	4515.26	44.74
14/2/2014	4580.00	4517.30	62.70

The MAPE value for ARIMA(2,1,0) is 1.189% which is consider very small as less than 5%. The MAPE value indicates that the inaccuracy of the forecasting of the daily *Kijang Emas* prices is low and the proposed model is good.

Conclusion

Box-Jenkins ARIMA model is good to use to forecast any time series data as it is only depend on the past data and with less information. This paper have updated the ARIMA model for the daily *Kijang Emas* prices which had been done by Abdullah (2012) and Miswan et al. (2013). This paper shown that the ARIMA(2,1,0) with the logarithmic transformation of the original data is the best fit model for the daily *Kijang Emas* prices. The MAPE value of this model is shown to be very small that is 1.189% which indicated the proposed model is good and can be used for forecasting the daily *Kijang Emas* prices for future.

References

Abdullah, L. (2012). ARIMA model for gold bullion coin selling prices forecasting. *International Journal of Advances in Applied Sciences*, *1(4)*, 153-158.

Bank Negara Malaysia. (2014, Feb 3). *Kijang Emas Prices*. Retrieved from http:/www.bnm.gov.my/

Bisgard, S., & Kulachi, M. (2011). *Time series analysis and forecasting by example*. Hoboken, New Jersey: John Wiley & Son, Inc.

Box, G.E.P. & Jenkins, G.M. (1976). *Time series analysis: forecasting and control* (2nd ed). San Francisco: Holden-Day.

Cryer, J.D., & Chan, K.S. (2009). *Time series analysis with Applications in R* (1st ed). New York, USA: Springer.

Deepika, M.G., Nambiar, G., & Rajkumar, M. (2012). Forecasting price and analyzing factors influencing the price of gold using ARIMA model and multiple regression analysis (Working Paper No. 135). *AMIRITA School of* Business.

Folarin, S.B., & Iyiol, O.S. (2013).Causality and invertibility of autoregressive integrated moving average (ARIMA) model. *Asian Journal of Current Engineering and Maths*, *2*, 260-266.

Khaemasunun, P. (2006). Forecasting Thai gold prices. *Australian Journal of Management*.

Khan, M.M.A. (2013). Forecasting of gold prices (Box Jenkins approach). *International Journal of Emerging Technology and Advanced Engineering*, *3(3)*, 662-670.

Ljung, G.M., & Box, G.E.P. (1978). On a measure of lack of fit in time series models. *Biometrika*, *65(2)*, 297-303.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

445

Miswan, N.H., Pung, Y.P., & Ahmad, M.H. (2013). On parameter estimation for Malaysian gold prices modelling and forecasting. *International Journal of Mathematical Analysis*, *7(22)*, 1059-1068.

Montgomery, D.C., Jennings, C.L., & Kulachi, M. (Eds.). (2007). *Autoregressive Integrated Moving Average (ARIMA) Models*. Hoboken, New Jersey: John Wiley & Son, Inc.

Shafiee, S., & Topal, E. (2010). An overview of global market and gold price forecasting. *Resources Policy*, *35*, 178-189.

Schinka, J.A., Velicer, W.F., & Weiner, I.B. (2012). *Handbook of psychology, research methods in psychology* (2nd ed.). Hoboken, N.J: Wiley.

Wei, W.W.S. (2006). *Time series analysis: Univariate and Multivariate Methods* (2nd ed.). United States of America: Pearson Education.

Yaziz, S.R., Azizan, N.A., Zakaria, R., & Ahmad, M.H. (2013). The performance of hybrid ARIMA-GARCH modeling in forecasting gold price. *20th International Congress Modelling and Simulation*. Adelaide, Australia.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

446

Roles of Housing Wealth and Stock Market Wealth in Monetary Transmission Mechanism in Malaysia

Siew Pong CHEAH[a] and Siong Hook LAW[b]

[a] *Department of Economics, Universiti Putra Malaysia*
[b] *Department of Economics, Universiti Putra Malaysia*

Abstract

This paper investigates the wealth channel of monetary policy transmission mechanism in Malaysia. Given the underdevelopment and non-inclusion of housing wealth in the previous literature of wealth channel in Malaysia, this paper aims to find out (1) whether monetary policy changes significantly affect asset prices, (2) whether asset prices fluctuations have significant influences on household consumption, and (3) whether the house prices and stock prices have significant and equal roles in the wealth channel. By constructing two 5-variable SVAR models with 60 quarterly observations spanning from 1999Q1 to 2013Q4, the findings indeed support the positive impacts from monetary expansion to asset prices level, and later from asset price fluctuation on aggregate consumption spending in Malaysia. However, a more formal investigation finds out that the wealth channel in Malaysia is only functioning properly during the occasions of contracting monetary policy and not expansionary monetary policy, and the effect of monetary policy is mainly transmitted through house price or residential wealth, whereas the contribution of financial wealth is virtually nil in the wealth channel.

INTRODUCTION

Unlike fiscal policy, monetary policy indirectly affects real sectors through certain transmission mechanisms, in which the most common example is exactly the interest rate channel. The nature of monetary policy naturally rises up some questions: How actually the implementation of monetary policy is transmitted through the medium, from the beginning to the end? What happens inside the "black box" of the system (Bernanke and Gertler, 1995)?

One way to unseal the black box is carefully exploring the transmission mechanisms of monetary policy. A particular one will be the *assets price channel* or *wealth channel*. The mechanism of wealth channel is briefly described as follow: other things being equal, a monetary easing boosts up asset values, which later induces an increase in non-labor wealth for those who holding the asset, and eventually increases household consumption due to the higher confidence on spending.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

447

As one may perceive, the wealth channel can be subdivided into two linkages: monetary policy-asset prices and asset prices-consumption spending. The first linkage describes the negative relationship between monetary expansion and asset prices, and it can be explained by finance theories like cost of capital and price-yield relationship. The second linkage elaborates the positive effects of asset prices and wealth on consumption expenditure, which in turns can be explained by the two famous hypotheses: Life-cycle hypothesis on consumption (Ando and Modigliani, 1963) and the permanent income hypothesis (Friedman, 1957). Given certain assumptions[19], both hypotheses suggest that the long-run marginal propensity to consume of out wealth (MPC_W) is slightly lower than the real interest rate, regardless of different classes of nonlabor asset.

This conjecture is definitely questionable if one considers the distinct characteristics of various categories of asset, says, real estate and financial equity. Dvornak and Kohler (2007) summarize six arguments on different forms of wealth (such as financial versus housing wealth) shall induce heterogeneous consumption responses, including liquidity reasons (Pissarides, 1978), utility derived from the asset ownership asset in terms of housing services or bequest motives (Mayer and Simons, 1994; Poterba, 2000; Bajari, Benkard and Krainer, 2005), different distributions of asset across income groups, expected permanency of changes of different asset classes, mismeasurement of wealth, and psychological factors (Sherfin and Thaler, 1988).

Assets holders may react differently upon the change in value of their equity stocks compared to the change in real estates, if they have considered aspects outlined above. Surprisingly, numerous studies on wealth channel and wealth effect consider the aggregate wealth or even only stock market wealth (see, among others, Ludvigson and Steindel, 1999; Caporale and Williams, 2001; Tan and Voss, 2003; Tang, 2006a; Paiella, 2007; Aleem, 2010). These findings often underestimate the strength of wealth channel and conclude that wealth channel is insignificant in monetary policy transmission. These incorrect specifications might lead to expensive mistakes of policy implication if both residential wealth and financial wealth are actually significant. Thus, this motivates us to re-examine the significance of wealth channel using Malaysian data, where the relevant literature is still underdeveloped, by carefully considering two disaggregated housing wealth and financial wealth.

Likewise, this paper attempts to examine wealth channel of monetary policy transmission mechanism in Malaysia. Specifically, this paper investigates whether the wealth channel of monetary policy transmission exists in Malaysia, if so, whether both housing wealth and financial wealth share an equivalent and significant contribution to household consumption. We extend the existing literature of wealth channel in several ways. Firstly, this paper correctly addresses the roles of housing wealth and financial wealth in the transmission of monetary policy in Malaysia's setting. By doing so, this study provides a comparison basis to the conclusions from previous researches which, with the absence of housing wealth, often declare insignificant or weak contribution of wealth channel in the transmission mechanism in Malaysia. Secondly, this study utilizes structural vector autogression (SVAR) method, which is prevalent to the recursive vector autogression technique.

The paper is organized as follow: section 2 presents the review of related literature. Section 3 highlights the employed data and estimation method. Section 4 analyses the empirical results. Lastly, section 5 summarizes and concludes the study.

LITERATURE REVIEW
In the literature of monetary policy transmission mechanism, the credit channel, amongst all, drawn most attention from the researchers, as a result empirical studies on channels other than credit channel, for instance asset price channel, are few. Amongst these few include Ludvigson, Steindel, and Lettau (2002) who study the importance of the wealth channel in the transmission of monetary policy in the United States. They find that the response of consumption when the wealth channel is muted differs little from its

---

[19] Where a representative consumer intends to maximize its expected utility subject to the constraint of labor income and nonlabor wealth, under an infinite horizon of consumption planning, interest rate is constant and equal to the rate of time preference, and a no-Ponzi game condition, which rules out bequest motives in asset holding. See Altissimo *et al*. (2005) for a theoretical review of wealth effect.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

448

response under the baseline scenario. This result suggests that the funds rate-induced changes in asset values brought little impact on consumption, indicating that wealth channel plays only a minor role in the monetary transmission mechanism. The authors attribute the weakness of the channel to the transitory effect of a funds rate shock on wealth, which typically fading off in less than two years. They point out to other research by Lettau and Ludvigson (2001) indicating that significant changes in consumer spending occur only in response to anticipated permanent changes in asset values. Ludvigson *et al.* (2002) modify their structural vector autoregression (SVAR) model later by including an index of commodity prices as a leading indicator of inflation intended to resolve the price puzzle. However, the inclusion of commodity prices even weakens further the wealth channel of monetary transmission. Instead, they find that consumption reacts to a monetary policy tightening shock more strongly than the household wealth does. Likewise, they find that a commodity prices shock substantially lowers real asset values and at the same time leads to a quick positive response in the federal funds rate. Together, these findings suggest that, first, the direct effects of a interest rate change on consumption appear to be more important in transmitting monetary policy to the real economy than do its indirect effects through the medium of household wealth, and second, the asset values do not appear to respond to changes in the interest rate per se, but rather to the same price pressures that prompt the monetary authorities to implement rate changes.

Disyatat and Vongsinsirikul (2003) attempt to investigate the asset price and exchange rate channels of monetary policy transmission in Thailand by estimating two simple 4-variable recursive VAR models that include gross domestic product, consumer price index, 14-day repo rate, real exchange rate (or equity price), and nominal exchange rate as exogenous variable to account for the 1998 Asian financial crisis. The authors follow Morsink and Bayoumi (2001) in assessing the strength of each channel by estimating these models twice, which is contrary to the approach favored by Ludvidson *et al.* (2002). The authors test the importance of the asset price and exchange rate channels by treating equity price and real exchange rate as exogenous factors, thereby muting the effects of these initially endogenous conduits in the monetary policy transmission. Comparing the impulse response of output to a monetary policy tightening shock based on the former models to the one based on the latter, therefore, provides a rough measure of the strength of the exchange rate and asset price channels. Disyatat and Vongsinsirikul (2003) find that the exchange rate channel work stronger in post-crisis period than pre-crisis time. The reason is that after the crisis period Thailand adopted the free floating exchange rate regime. Further, their finding shows that the asset price channel is very weak due to the fact that the capital market is still in its early development stage and equity holding accounts for a tiny fraction of the people's asset portfolio.

A more recent study of Koivu (2012) tries to examine the existence of wealth channel in China by constructing two five-variable SVARs with two alternative proxies for asset prices (housing and stock) and a relatively short observation of 44 quarters starting from 1998. Being the first study of wealth channel in China, the author asserts that the household consumption reacts positively to an increase in both asset prices, but stronger effect is seen in the changes of housing price. However, the author also claims that the effect of monetary policy-induced changes on consumption is very weak and functional only through residential prices, while monetary policy did significantly affect asset prices. Koivu (2012) blames the weak magnitude on the unpredictability of Chinese stock market and the nature of durable consumer good of properties, which may encourage households to reduce their investment in the respective assets and therefore weaken the wealth effect.

Thus far, perhaps there is no empirical evidence which specifically studies on Malaysian asset price channel. The number of published literature on the broad monetary policy transmission mechanism in Malaysia is limited too. For instances, Azali and Matthews (1999) investigate the money and credit channels during the pre and post-liberalization horizon in the late 1990s. By adapting Bernanke's (1986) closed economy contemporaneous SVAR model, the authors declare the money channel is more significant in influencing output fluctuations post-liberalization, while credit channel is dominant during pre-liberalization.

Ibrahim (2005) uses a recursive VAR to study the impact of monetary policy shocks on various industrial sectors, and concludes the heterogeneous responses of various sectors to monetary shocks, where

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

449

interest rate-sensitive sectors such as manufacturing, construction, finance, and real estate industry are more affected by monetary tightening. However, the choice of the 3-month Treasury bill rate as the monetary instrument may be less appropriate given the lacking of breadth and depth of the debt market in Malaysia.

The first study that measures the relative importance of the monetary policy transmission channels in Malaysia is conducted by Tang (2006a). The study investigate the relative strengths of four monetary transmission channels of Malaysia by using a 12-variable small open economy recursive-VAR model estimated from 1981:1 to 2004:1 to. By adopting the *shutdown* approach as in Ludvigson *et al.* (2002), the study concludes that the interest rate channel appears to be the most important transmission channel and followed by asset price channel within a 2-year span. Nonetheless, the author finds the recursive identification technique is problematic for the 3-month interbank rate shock in which an exchange rate puzzle is observed.

Note that, despite the limited empirical evidence of asset price channel in Malaysian economy, none of these studies do recognize the potential role of wealth channel in transmitting the monetary policy shock to the real economy sector, except Tang (2006a). Nonetheless, the author did not include housing wealth in representing asset price channel, in which the author blames to data limitation in Malaysia. Given the fact that equity holding currently is yet to be broadly held by the Malaysian household, it is likely that the reported evidence of the effect of asset price channel is underestimated, as most, if not all, of the studies of monetary transmission mechanism in Malaysia utilized only the financial wealth as a proxy to total wealth. In addition, the recursive identification technique is lacking in analyzing monetary transmission mechanism, where the technique is relying on a-theoretical restriction and sensitive to the ordering choice. We hence believe that a reexamination on Malaysian wealth channel adopting structural VAR framework is fruitful.

METHODOLOGY

Variable wise, this study employs five endogenous variables for the SVAR analysis, namely aggregate household income, aggregate household consumption, monetary policy indicator, housing wealth and financial wealth. The Malaysian household income and consumption are measured as real GNP (Y) and final private consumption spending (CE), respectively. Residential wealth and financial wealth are indicated by Malaysian housing price index (HP) and Kuala Lumpur Composite Index (SP). While most studies on the developed countries select policy interest rate (e.g. federal funds rate in the United States) as the monetary policy indicator, the choice of monetary policy indicator for Malaysia is complicated by the absence of formal announcement from Bank Negara Malaysia (BNM), as well the several regime changes on monetary policy targets (Tang, 2006b). In respect on this issue, Tang (2006b) has survey a series of potential indicators of monetary policy in Malaysia which includes reserve requirement ratio, all types of monetary aggregates and interbank interest rates of various maturities, and concludes that monetary aggregate the policy M1 and 3-month interbank money rate appear to be the most potential candidates. Tang's (2006b) conclusion, however, may not be applicable in years after 2004 as BNM officially adopts the overnight policy rate-target (OPR) scheme. Henceforth, this study views M3 as the monetary policy indicator and overnight interbank money rate as the alternative for robustness purpose.[20]

Data wise, all variables are quarterly secondary data at stake or otherwise taken end of the period. All data are obtained from BNM monthly statistical bulletins, except KLCI from Bursa Malaysia. The observation period spans from 1999Q1 to 2013Q4 which amounted to 60 observations. Except the interbank rate, all series are expressed in natural logarithms in order to make comparable evaluation of analytic relationships among the series despite series originating from various units of measurement. In addition, all variables are in real term (deflated by consumer price index) and seasonally adjusted by using Census X12 method. Detail descriptions of the data and variables are tabularized in Appendix A.

---

[20] A more appropriate candidate is supposedly overnight policy rate, but since that policy rate is officially implemented as late in April 2004 and the interbank rate is merely a one-day lag interest rate of the policy rate, so this study prevail overnight money rate as in Christiano *et al.* (1996), and Ibrahim (2005).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

450

In order to analyze the effects of monetary policy on asset prices and then household consumption, this study utilizes the VAR techniques developed by Sims (1980). The VAR model is preferable in handling the identification problem of the complex interrelationships exist among endogenous macroeconomic variables. However, the basic forms of VAR explain the dynamic relationships among the variables solely by their history. To circumvent this weakness, Sims (1986) and Bernanke (1986) suggest modeling VAR using structural decomposition that relies on economic theory. Following the *AB* approach proposed by Amisano and Giannini (1997) an economy can be modeled in the following structural VAR in level:

$$AX_t = \alpha_1 X_{t-1} + \cdots + \alpha_p X_{t-p} + B\varepsilon_t$$

(3.1)

where *A* is an invertible $m \times m$ coefficient matrix of contemporaneous relationships, *B* is a $m \times m$ diagonal matrix, and $\alpha_i = AA_i$ are $m \times m$ coefficient matrices. The model residuals u_t are assumed to be linearly correlated to the structural errors ε_t, so that

$$Au_t = B\varepsilon_t \text{ or } u_t = A^{-1}B\varepsilon_t$$

(3.2)

where ε_t is assumed normally distributed with zero mean and normalized diagonal variance-covariance matrix $\Omega = I$. System 3.2 basically illustrates the decomposition of the structural innovations $\Box_t$ into elements caused by the contemporary reduced-form shocks u_t, which reflects the fundamental economic shocks. Sufficient restrictions must be imposed on matrix *A* or *B* or both. For instance, $2m^2 - 0.5(m^2 + m)$ restrictions is required for the system to be exactly-identified (Amissano and Giannini, 1997). In this study where $m = 5$, the minimum number of necessary restriction is 35.

The SVAR model of the Malaysian wealth channel involves a set of series represented by the following vector X_t.

$$X_t = (CE_t, Y_t, M_t, HP_t, SP_t)'$$

(3.3)

where CE_t is the household real consumption expenditure, Y_t indicates aggregate real income, M_t is the monetary policy indicator that can be proxied by M3 (*M3*) or overnight interbank money rate (*OMR*), HP_t and SP_t are the proxies for housing wealth and financial wealth, respectively. As aforementioned, all series is log-transformed except OMR_t which is already expressed in percentage point. Then, the vector X_t is built into the following SVAR system.

$$AX_t = \alpha_1 X_{t-1} + \cdots + \alpha_p X_{t-p} + C + B\varepsilon_t$$

(3.4)

where *A* and *B* are diagonal 5×5 matrices of contemporaneous relationships and diagonal elements respectively, while *C* is constant term that includes possible deterministic trends and/or structural breaks. In identifying the SVAR, this study develops the following identification scheme that is customized to the context of Malaysia:

$$
\begin{bmatrix}
1 & 0 & 0 & 0 & 0 \\
-a_{21} & 1 & -a_{23} & 0 & -a_{25} \\
0 & 0 & 1 & 0 & a_{35} \\
0 & 0 & a_{43} & 1 & 0 \\
a_{51} & a_{52} & a_{53} & a_{54} & 1
\end{bmatrix}
\begin{bmatrix}
u_t^y \\
u_t^{ce} \\
u_t^m \\
u_t^{hp} \\
u_t^{sp}
\end{bmatrix}
=
\begin{bmatrix}
b_{11} & 0 & 0 & 0 & 0 \\
0 & b_{22} & 0 & 0 & 0 \\
0 & 0 & b_{33} & 0 & 0 \\
0 & 0 & 0 & b_{44} & 0 \\
0 & 0 & 0 & 0 & b_{55}
\end{bmatrix}
\begin{bmatrix}
\varepsilon_t^y \\
\varepsilon_t^{ce} \\
\varepsilon_t^m \\
\varepsilon_t^{hp} \\
\varepsilon_t^{sp}
\end{bmatrix}
$$

(3.5)

which is modified from the setting of Koivu (2012). The sequences u_t and ε_t capture the reduced-form shocks and structural innovations of the VAR model, which corresponds to each variable respectively. a_{jk} and b_{jk} are freely estimated parameters where *a* represents the contemporaneous shock and *b* is the orthogonal complements of the structural errors. System 3.5 is over-identified with 16 restrictions imposed on *A* and 20 imposed on *B*, which is amounted to 36 restrictions or an additional restriction for exact-identification.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

451

The theoretical underpinning in the first model of income is explained in the concept of wage rigidity (Christiano *et al.*, 2005), household income is presumed too rigid to be adjusted immediately, meaning that it is not allowed to react quickly to shocks of consumption, money supply, and asset prices. This setting is similar to Koivu (2012) where the author assumes that income is only contemporaneously corresponding to inflation shocks, which is not introduced in this study.

For the second equation of consumption spending, it is allowed to react immediately to real income shocks as in Ludvigson *et al.* (2002). Monetary policy shock is also allowed to affect consumption spending within a quarter, for which this practice is customary in the literature (Bagliano and Favero, 1998). Come to the asset prices, the equation assumes that only the changes of stock price will induce response in household consumption expenditure within a quarter, while the effect of house price shocks come with a lag, due to the different liquidity, stickiness and measurement accuracy of these two asset classes.

The setting of the third equation follows suits of Koivu (2012) and Bagliano and Favero (1998), where monetary policy changes can immediately affect asset prices but the effects on other variables are lagged. However, as contradict to Koivu (2012) it is here assumed that the monetary policy can react to innovations from all other variables only with a lag, except shock originated from stock price. It is hardly that the monetary authority can fully recognize the changes in aggregate income and consumption within a short span of one quarter, especially when certain monetary policy changes were implemented right before the shock of income, consumption or house price occur.

Lastly, the fourth and fifth equations of asset price are constructed based on the characteristics of the two asset classes, both asset prices are assumed likely to respond contemporaneously to monetary shock. Stock price is allowed to react instantaneously to changes in all other variables as it is a financial variable which is likely to react quick to both fiscal and monetary events (Bernanke and Kuttner, 2005; Jansen and Tsai, 2010). House price is assumed receiving the shocks from other variables after a lag given the reason of price rigidity except monetary policy shock.

SVAR ESTIMATION

As a preliminary step, unit root tests and cointegration tests precede the estimation of the VAR model. Table A1 in appendix summarizes the result of augmented Dickey-Fuller (1981) unit root test (ADF) and Phillips-Perron (1988) unit root test (PP) on all series, in level or in first-difference. Albeit the argument where Schwartz information criterion (SC) is more consistent asymptotically, whereas Akaike information criterion (AIC) tends to overestimates the lag order asymptotically (Acquah, 2010; Lütkepohl, 2011), AIC may perform better than the SC in small-sample analysis (Enders, 2010). Therefore the lags for ADF test are selected based on AIC.

The conclusions from both unit root tests are fairly in consensus. The only contradictions relate to $M3$ and OMR at level. ADF test rejects the null of nonstationarity for $M3$ at 5 percent but PP tests shows no sign of null rejection, whereas the null is not rejected by ADF test but it is rejected by PP test in the case of OMR. In this respect, we follow the suggestion by Cheung and Lai (1997) that PP test outperforms ADF test with the improvement due to the combined use of prewhitening procedure and data-based bandwidth selection. Therefore, the unit root tests conclude that OMR and SP are stationary at level or $I(0)$, Y is weakly-stationary at level, and CE, $M3$, and HP are stationary only after first differencing or $I(1)$.

The above conclusion implies that the mixture of $I(0)$ and $I(1)$ series may share a common trend(s) or cointegrating relationship(s) among them. Therefore we employs Johansen (1995) cointegration test to detect any possible cointegrating relationship among the series. Due to the relatively short length of observation (60 quarters) for Johansen procedure, we adopt the idea of Reimers (1992), and Reinsel and Ahn (1992) to adjust the trace and max-eigenvalue statistics by multiplying a factor[21]. The result (see Table A3) suggests a cointegration relationship in the system $M3$, and none in the system OMR. Nonetheless, since there is no formidable priori for the long-run cointegration relationship among

---

[21] The adjustment factors are 0.63636 and 0.53704 for model $M3$ and OMR, respectively.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

452

household income, household consumption, monetary policy change, and asset price, and the goal of this analysis is to identify the interrelationships of the time series, this study continue to estimate VAR in level for both model specifications.

As aforementioned, we estimate two models with different indicators of central bank's action, namely monetary aggregate *M*3 and the overnight money market rate, *OMR*. The autoregressive order of model *M*3 is 4, while the lag order is 5 for model *OMR*. The respective lag lengths are relatively the best among others to address serial correlation, retains degree of freedom, and maintain the stability of the VAR system, rather than relies on any information criterion.

As for misspecification check, we test the models for possible autocorrelation of residuals by using the multivariate LM test, for any ARCH effects in the residuals by univariate ARCH test, and for any parameter instability in the systems by CUSUM test and CUSUM-Square test. Given the selected autoregressive orders, the results from the LM test indicate a significant residual correlation of lag 3 in model *M*3 and two significant autocorrelations of lag 1 and lag 2 in model *OMR*. Anyhow, we believe the residual autocorrelation in lower lag orders do not signal problems in both systems. Despite the minor problems of residual correlation, our models have no problem of conditional heteroscedasticity and parameter instability. We therefore conclude our VAR specifications have passed most adequacy tests, and continue with the structural impulse response analysis.

Impulse Response Analysis

The roles of housing wealth and financial wealth in transmitting the monetary policy shocks can be observed through the responses of the target variables to unexpected shocks of other endogenous factors in the system. Figure 3 and 4 in Appendix report two sets of impulse response functions generated under model *M*3 and *OMR*.

Firstly, both asset prices do indeed positively react to an upward shock of money supply. The response of stock price is relatively larger in magnitude where a 10 percent increase in money supply will induce a 20 percent increase in the stock price, which is highly responsive (and volatile) to monetary shock, but there is an seemingly overshooting effect where the response of stock price falls into negative values at the sixth quarters after the shock. The response of house price to money supply shock is smaller in magnitude, but the effect is much prolonged than the effect in stock price, where the impulse dissipates in ninth quarter comparing to the sixth quarter in the case of stock price. However, the estimates for house price are significant only up to first 3 quarters, while estimates for stock price are insignificant for all the 16 quarters.

As for the case of *OMR*, a visual inspection on the figures will obtain a similar results as in model *M*, where the impulse response curves of house price and stock price move in a completely opposite direction and the fluctuations are more or less the same (Notice that in the *OMR* system a positive shock of the interest rate is representing a money tightening, hence both stock price and house price are theoretically adversely impacted). However, there are some differences between the two specifications. The magnitude of response of stock price in relation to interest rate shocks is higher than the previous case, where an increase of 100 basis points in interest rate leads to a fourfold drop in the stock price. Moreover, the estimates for stock price are statistically significant for the first four quarters, while only the estimates for first two quarters for house price are significant.

As both models suggest that a monetary policy shock has prominent impacts to house price and stock price that lasts up to a year, it is therefore concluded that the monetary policy changes do affect asset prices or particularly household wealth in the short run, which is supportive to the first link of the wealth channel transmission.

Given that both models agree on the significant relationship between monetary policy shock and asset prices fluctuation, we now focus on the wealth-consumption linkage. It shows that labor income remains to be the primary driver of consumption spending where the income elasticity of consumption is almost equal to unity at the peaks in both impulse response functions. The positive responses of consumption

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

453

against income innovation are long-lasting as well, where the effects are inclining from the first quarter until around eighth quarter and beginning decay afterward.

Coming to the different types of wealth, the shocks arising from house price are having larger impacts on consumption than the shocks from stock price. The response of consumption expenditure to house price shock is expectedly positive, where a 10 percent increase in house price tends to induce roughly 0.04 to 0.08 percent increase in household consumption during the span between third to fifth quarters. Stock price shocks, in contrary to house price, are generally insignificant to explain the consumption spending in both model specifications, the only significant components occur in the second quarter. In addition, the responses of consumption to impulse of stock price are initially negative in the model $M3$, it then becomes positive in the fifth quarter, but the effects are anyhow insignificant.
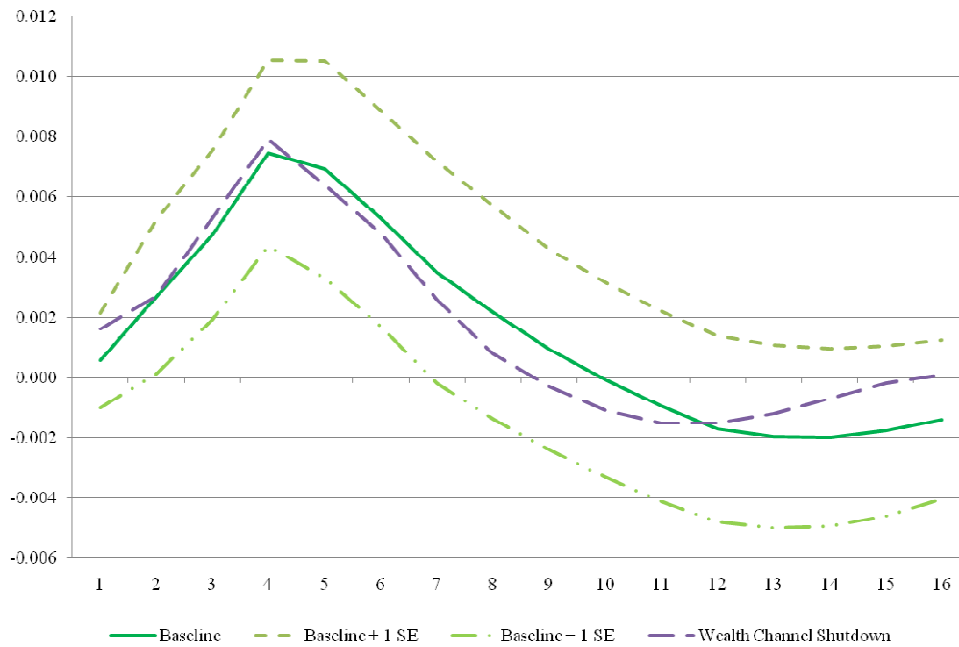
The observations above indicate that, aggregate household consumption only significantly responds to the shocks of aggregate income and house price, while stock price and financial wealth are insignificant in influencing household consumption. This further implies that, if there is a well-functioning wealth channel in Malaysia, the monetary policy merely transmits through the housing wealth and then reaches to household sector rather than going through financial wealth.

Formal Investigation: Shutdown Approach
The separate investigation on the effect of monetary policy on asset prices and then effect of asset price on consumption do indicates that a money easing is likely to increase asset price level and indirectly induce higher consumption spending, but this conclusion does not imply the wealth channel is actually functioning in Malaysia. To provide a fuller picture of the wealth channel, we follow the counterfactual 'shut down' approach that initiated by Ludvigson *et al*. (2002) to examine the overall significance of the wealth channel in Malaysian monetary system. The main idea of this method is to restrict all contemporaneous and lagged parameters of asset prices in the model of consumption to zero, and so the wealth channel is effectively muted. If there is a large difference between the resulting impulse response curves from two scenarios then it implies the significant role of the wealth channel in monetary policy transmission.

The outcomes of shutting down of wealth channel are graphed in Figure 2 and 3 that gives a very interesting comparison. The difference between the responses of consumption to money supply ($M3$) shock under baseline scenario and without wealth channel is negligible, where the responses does not change much when the asset prices is excluded in the transmission. This finding is similar to Koivu's (2012) result in which the wealth channel in China only plays a limited role.

However, when it comes to the case of interest rate (OMR), it shows a markedly deviation between the two scenarios. The reactions of consumption corresponding to interest rate shock are largely varied when the wealth channel is operating and when it is not. These derived findings of using shutdown approach lead to two possibilities. First, consumers are relatively more sensitive to the changes in interest rates than changes in money supply. This can be seen in the impulse responses above, where consumption spending responds quickly to the shock of interest rate in the second

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

454

Fig. 1: Wealth Channel Shutdown – Response of Consumption to Impulse of Money Supply
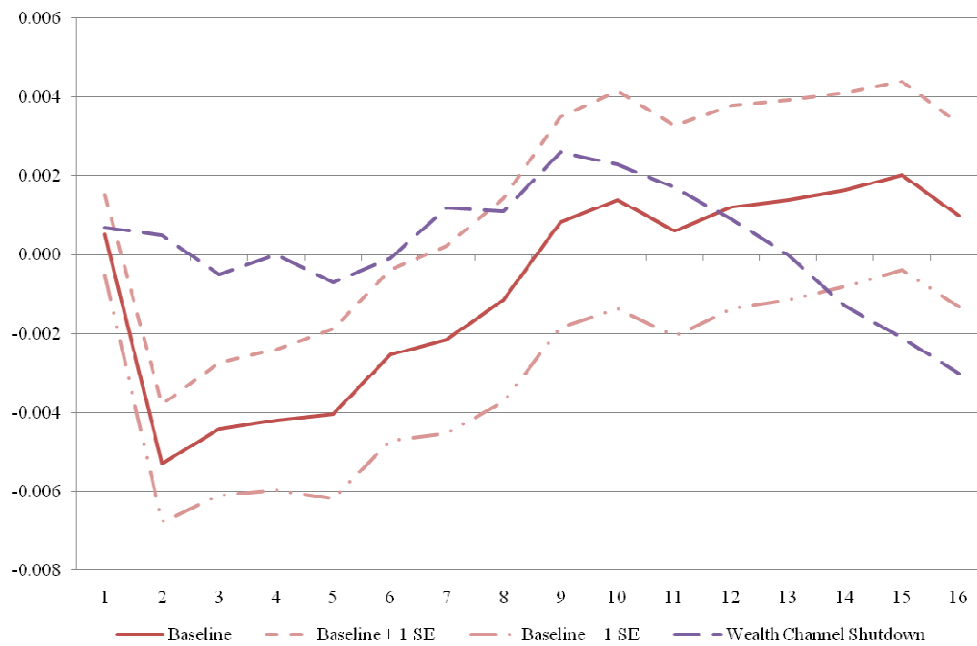
Fig. 2: Wealth Channel Shutdown – Response of Consumption to Impulse of Interest Rate

quarter, the response due to money supply shock is peaked only at the fourth quarter. Second, it seems that there is an asymmetric response of consumer against favorable and unfavorable change in monetary policy. In such circumstances households heavily reduce their consumption expenditure when the interest rate increases and signals value depreciation in wealth, but the higher consumption spending that associated with a monetary expansion is not contributed much from the higher wealth level, but rather directly from the monetary changes. In other words, the wealth channel is only functioning properly when

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

455

it is transmitting unfavorable news, for instance a monetary contraction, but the role of wealth channel is rather limited when the monetary authority announces expansionary monetary policy.

Robustness Check
It is worthwhile to perform some robustness checks on the monetary policy indicators due to the absence of formal announcement from BNM prior to 2004. As such, we estimate another model treating M1 and M2 as money supply. Despite the models failed to pass some misspecification tests, most of the resulting impulse response functions exhibit similar patterns to the benchmark models. The largest difference is observed from the response of house price and stock price on monetary shock, where the responses are weaker than what have been observed from the benchmark model. This suggests that our models are robust to change of monetary policy indicator[22].

CONCLUSION
This study makes an effort to analyze the wealth channel of monetary policy transmission mechanism in Malaysia. Given the underdevelopment and non-inclusion of housing wealth in the previous literature of wealth channel in Malaysia, this research aims to find out (1) whether monetary policy shocks significantly affect asset prices, (2) whether asset prices fluctuations have significant influences on household consumption, and (3) whether the house prices and stock prices have significant and equivalent roles in the operation of wealth channel. In order to fulfill the research objectives, this study undertakes a methodological framework of structural vector autoregression (SVAR). Specifically, this study constructs two 5-variable SVAR models using 60 quarterly data in Malaysia which spans from 1999:1 to 2013:4. The empirical conclusions result from different choice of monetary policy indicator, namely money aggregate M3 and overnight interbank money rate, in two SVAR models are generally consistent.

Our results claim that monetary policy announcements do affect the price level in housing market and stock market. In this respect, the conclusions drawn from model of money supply and interest rate indicator are in broad consensus, in which the fluctuation of house price in the aftermath of monetary policy shock is relatively smooth, as compared to the volatile response of stock price against a monetary shock. The evidence of positive impact of monetary policy shock on asset price is consistent with the previous findings of Bernanke and Kuttner (2005), Basistha and Kurov (2008), Elbourne, (2008), Jansen and Tsai (2010), Koivu, (2012), and Wadud *et al.* (2012), among many others.

The relationship between asset price fluctuation and aggregate consumption in Malaysia is established as well. Despites the marginal difference in terms of magnitudes of MPC due to housing wealth and financial wealth, both models agree that only income and house price fluctuation and hence change in housing wealth is likely to significantly affect household consumption behavior, whereas the contribution of financial wealth to consumption expenditure is insignificant. This evidence concludes the different roles of housing wealth and financial wealth playing in the wealth channel in Malaysia, which supports that the role of housing wealth is more important than financial wealth in monetary policy transmission through wealth channel. The first possible reason is regarding the distributional aspect. This may be convincing as 65.8 percent of total financial assets[23] in Malaysia is owned by income group whose above RM5,000 in 2013, but the portion of this income class accounts for only 33.7 percent of total households (Bank Negara Malaysia, 2014). Second, stock market may be less attractive to households for wealth accumulation due to the highly volatile stock price fluctuation. Instead they are more willing to form their asset portfolio with higher share in relatively stable housing market. This finding of significant residential wealth and insignificant financial wealth is similar with some of the previous literature, including Benjamin *et al.* (2004), Case *et al.* (2005, 2012), Bostic *et al.* (2009), Carroll *et al.* (2011), and Koivu (2012).

Lastly, a more formal examination finds that households would exhibit asymmetric reaction against monetary policy action where the asset prices channel is only significant when it is transmitting monetary tightening shocks that associates with higher interest rates, but the role of the same asset prices channel

---

[22] Although a fruitful comparison can be made using other indicators for interest rate, but every candidate is suffering some problems for proper estimation. The overnight policy rate is of too short observations because it starts as late in April 2004, and there are missing observations in the money rates of longer maturity term.
[23] The sum includes equity stocks and unit trust funds.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

456

is very limited in transmitting shocks from loosening monetary policy that associates with higher money supply. This may be due to the conservatism of household in consumption spending, where the Malaysian consumers drastically reduce their expenditure on consumption during the bad times as they observed from the decreased value of wealth, but they tend to slightly increase their spending even if the value of wealth is higher during the good times.

From the perspective of monetary policy, our findings suggest the wealth channel could enhance the overall effectiveness of contractionary monetary policy transmission. Failure in recognizing the contribution of wealth channel might result in over-dampening effect if the monetary authorities intend to cool down an overheating economy by implementing monetary tightening policy. Thus, it is imperative that the monetary authorities alert from the presence of wealth channel that influences household consumption behavior through the conduit of residential wealth.

Contrary to the cases of money contraction, the wealth channel is irrelevant in delivering shocks of monetary expansion. It so implies that monetary authorities could ignore the effect of monetary loosening on housing wealth and aggregate consumption expenditure. Perhaps the traditional interest rate and other transmission channels are assuming a more important position in conveying favorable monetary shock.

Appendix

Table A1: Data sources and descriptions

Variable	Data	Source
Y	Gross national product, RM million.	BNM,
	Quarterly data from 1999:1 to 2013:4, deflated by CPI, seasonally adjusted using Census X12 and in natural log.	Monthly Statistical Bulletin.
CE	Private final consumption expenditure, RM million.	BNM,
	Quarterly data from 1999:1 to 2013:4, deflated by CPI, seasonally adjusted using Census X12 and in natural log.	Monthly Statistical Bulletin.
M3	Monetary aggregate, M3, RM million.	BNM,
	Monthly data from 1999:1 to 2013:12, end of period, deflated by CPI, seasonally adjusted using Census X12 and in natural log.	Monthly Statistical Bulletin.
OMR	Average overnight money rate, %.	BNM,
	Daily/Monthly data from 1999:1 to 2013:12, end of period.	Monthly Statistical Bulletin.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

457

HP	Malaysia house price index, 2000=100.	BNM,
	Quarterly data from 1999:1 to 2013:4, deflated by CPI, seasonally adjusted using Census X12 and in natural log.	Monthly Statistical Bulletin.
SP	Kuala Lumpur Composite Index.	Bursa Malaysia
	Daily/Monthly data from 1999:1 to 2013:12, end of period, deflated by CPI, seasonally adjusted using Census X12 and in natural log.	

Table A2: Augmented Dickey-Fuller and Phillips-Perron Unit Root Tests

Series	Exogenous	Augmented Dickey-Fuller	Phillips-Perron
Y	*c, t*	-3.248*	-3.379*
ΔY	*c*	-6.445***	-6.806***
CE	*c, t*	-2.010	-2.149
ΔCE	*c*	-6.583***	-6.602***
M3	*c, t*	-3.944**	-2.900
$\Delta M3$	*c*	-6.460***	-6.577***
OMR	*c*	-2.428	-5.930***
ΔOMR	*c*	-12.30***	-11.82***
HP	*c, t*	0.549	1.263
ΔHP	*c*	-2.921**	-6.667***
SP	*c, t*	-3.496**	-3.795**
ΔSP	*c*	-5.896***	-9.207***

c indicates a constant and *t* a trend. Lag length selections for ADF test are based on AIC and the maximum lag length allowed is 12. The bandwidth selections and the spectral estimations in PP test are based on Newey-West and Bartlett kernel approach.

*, **, *** represents null rejection at 10%, 5% and 1% level of significance, respectively.

Table A3: Johansen Cointegration Test – Small Sample Adjusted

System	Cointegration rank	Adjusted Trace statistics	0.10 Critical Value	Adjusted Max-Eigen statistics	0.10 Critical Value
Model *M3*	r = 0	69.61*	65.82	32.31*	31.24
Y, CE, M3, HP, SP	r ≤ 1	37.30	44.49	19.26	25.12
	r ≤ 2	18.03	27.07	13.48	18.89
	r ≤ 3	4.552	13.43	4.115	12.30

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

458

	$r \leq 4$	0.437	2.706	0.437	2.706
Model *OMR*	$r = 0$	50.57	65.82	23.87	31.24
Y, CE, OMR, HP, SP	$r \leq 1$	26.69	44.49	15.39	25.12
	$r \leq 2$	11.30	27.07	7.018	18.89
	$r \leq 3$	4.286	13.43	4.263	12.30
	$r \leq 4$	0.023	2.706	0.023	2.706

The adjustment factors are 0.63636 (=1–5*4/55) and 0.53704 (=1–5*5/54) for model *M*3 and *OMR* respectively.

* represents null rejection at 10% level of significance.

Table A4: Breusch-Godfrey LM Test for Autocorrelation

System	Lags	LM stats	p-value
Model *M*3	1	26.26	0.39
Y, CE, M3, HP, SP	2	24.80	0.47
	3	44.21**	0.01
	4	25.41	0.44
	8	19.95	0.75
	16	15.10	0.94
Model *OMR*	1	41.07**	0.02
Y, CE, OMR, HP, SP	2	40.44**	0.03
	3	29.52	0.24
	4	21.88	0.64
	8	12.28	0.98
	16	21.14	0.69

** and *** represents null rejection at 5% and 1% level of significance, respectively.

Table A5: ARCH Test

System	Dep. Var	*F*-statistics	nR^2
Model *M*3	*Y*	0.721	9.605
	CE	0.434	6.335
	*M*3	0.807	10.48

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

459

	HP	0.493	7.056
	SP	0.608	8.387
Model OMR	Y	0.692	9.320
	CE	1.356	15.12
	OMR	1.059	12.79
	HP	0.100	1.647
	SP	1.090	13.06

The ARCH order is 12 for both system equations.
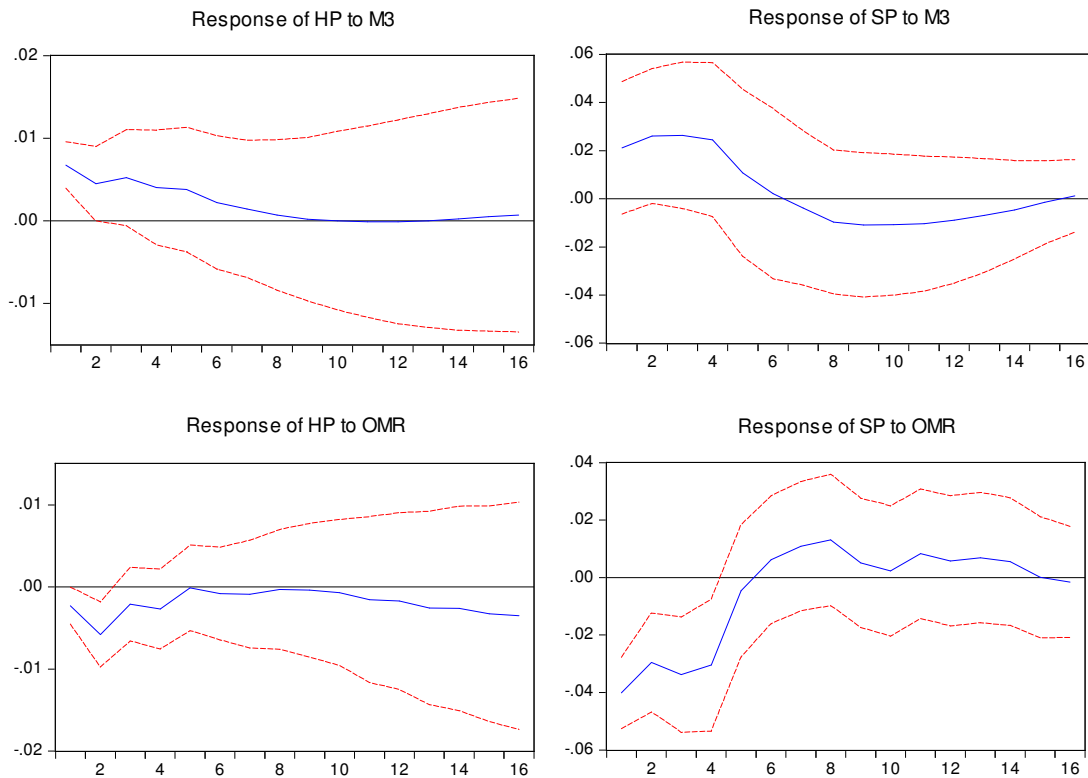
Fig. 3: Impulse Response Analysis with Money Supply.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

460
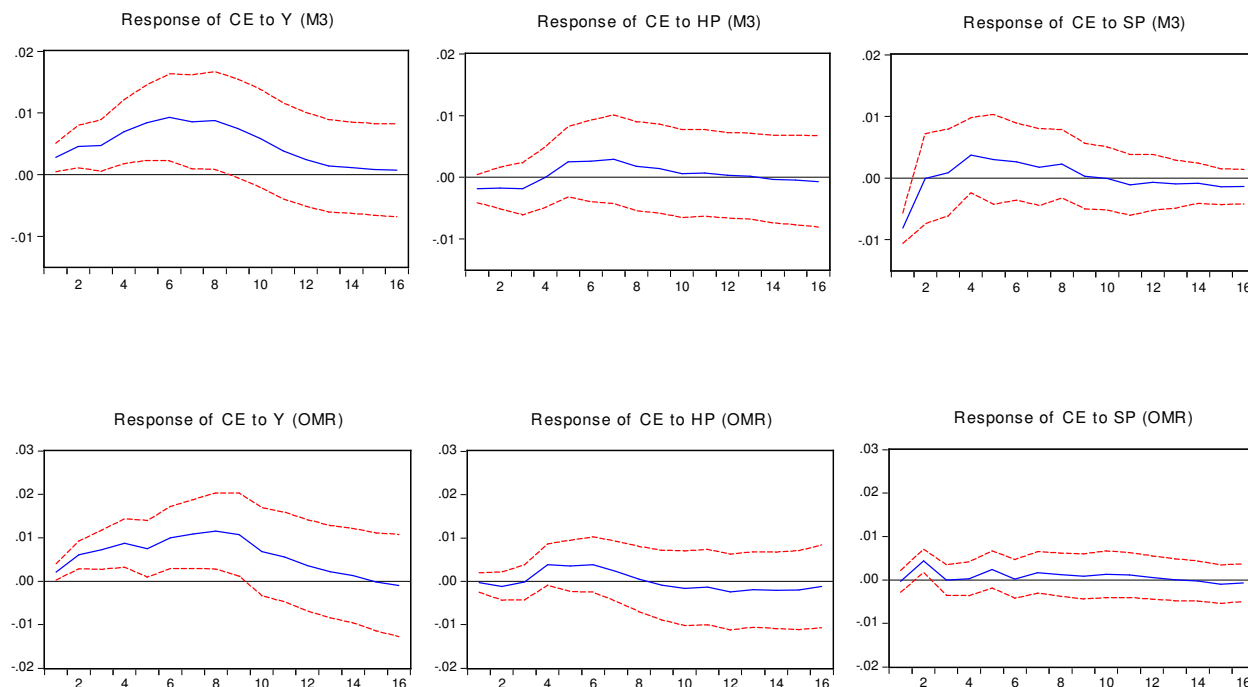
Fig. 4: Impulse Response Analysis with Interest Rate

References

Acquah, H. G. (2010). Comparison of Akaike information criterion (AIC) and Bayesian information criterion (BIC) in selection of an asymmetric price relationship. *Journal of Development and Agricultural Economics, 2*(1), 001–006.

Aleem, A. (2010). Transmission mechanism of monetary policy in India. *Journal of Asian Economics*, *21*(2), 186–197.

Altissimo, F., Georgiou, E., Sastre, T., Valderrama, M. T., Sterne, G., Stocker, M., *et al*. (2005). Wealth and asset price effects on economic activity. *European Central Bank Occasional Paper Series No. 29*.

Amissano, G. G., & Giannini, C. (1997). *Topics in Structural VAR Econometrics*. (2nd ed.). Berlin: Springer-Verlag.

Ando, A., & Modigliani, F. (1963). The "Life Cycle" Hypothesis of saving: Aggregate implications and tests. *American Economic Review*, *53*(1), 55–84.

Azali, M., & Matthews, K. G. P. (1999). Money-income and credit-income relationships during the pre- and the post-liberalization periods: Evidence from Malaysia. *Applied Economics*, *31*(10), 1161–1170.

Bagliano, F. C., & Favero, C. A. (1998). Measuring monetary policy with VAR models: An evaluation. *European Economic Review*, *42*(6), 1069–1112.

Bajari, P., Benkard, C., & Krainer, J. (2005). House prices and consumer welfare. *Journal of Urban Economics*, *58*(3), 474–487.

Bank Negara Malaysia. (2014). Outlook and Policy in 2014. In *Bank Negara Malaysia Annual Report 2013* (pp. 63–82). Kuala Lumpur: Bank Negara Malaysia.

Basistha, A., & Kurov, A. (2008). Macroeconomic cycles and the stock market's reaction to monetary policy. *Journal of Banking & Finance*, *32*(12), 2606–2616.

Benjamin, J. D., Chinloy, P., & Jud, G. D. (2004). Real estate versus financial wealth in consumption. *Journal of Real Estate Finance and Economics*, *29*(3), 341–354.

Bernanke, B. S. (1986). Alternative explanations of the money-income correlation. *Carnegie-Rochester Conference Series on Public Policy*, *25*(1), 49–100.

Bernanke, B. S., & Gertler, M. (1995). Inside the black-box: The credit channel of monetary-policy transmission. *Journal of Economic Perspectives*, *9*(4), 27–48.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

461

Bernanke, B. S., & Kuttner, K. N. (2005). What explains the stock market's reaction to federal reserve policy? *Journal of Finance*, *60*(3), 1211–1257.

Bostic, R., Gabriel, S., & Painter, G. (2009). Housing wealth, financial wealth, and consumption: New evidence from micro data. *Regional Science and Urban Economics*, *39*(1), 79–89.

Caporale, G., & Williams, G. (2001). Monetary policy and financial liberalization: The case of United Kingdom consumption. *Journal of Macroeconomics*, *23*(2), 177–197.

Carroll, C., Otsuka, M., & Slacalek, J. (2011). How large are housing and financial wealth effect? A new approach. *Journal of Money, Credit and Banking*, *43*(1), 55–79.

Case, K. E., Quigley, J. M., & Shiller, R. J. (2005). Comparing wealth effects: The stock market versus the housing market. *Advances in Macroeconomics*, *5*(1), 1–32.

Case, K. E., Quigley, J. M., & Shiller, R. J. (2012). Wealth effects revisited 1975-2012. *Cowles Foundation Discussion Paper*, *No. 1884*.

Cheung, Y. W., & Lai, K. S. (1997). Bandwidth selection, prewhitening, and the power of the Phillips-Perron test. *Econometric Theory, 13*(5), 679–691.

Christiano, L. J., Eichenbaum, M., & Evans, C. L. (1996). The effects of monetary policy shocks: Evidence from the flow of funds. *Review of Economics and Statistics*, *78*(1), 16–34.

Christiano, L. J., Eichenbaum, M., & Evans, C. L. (2005). Nominal rigidities and the dynamic effects of a shock to monetary policy. *Journal of Political Economy*, *113*(1), 1–45.

Dickey, D. A., & Fuller, W. A. (1981). Likelihood ratio statistic for autoregressive time series with a unit root. *Econometrica, 49*(4), 1057–1072.

Dvornak, N., & Kohler, M. (2007). Housing wealth, stock market wealth and consumption: A panel analysis for Australia. *The Economic Record*, *83*(261), 117–130.

Elbourne, A. (2008). The UK housing market and the monetary policy transmission mechanism: An SVAR approach. *Journal of Housing Economics*, *17*(1), 65–87.

Enders, W. (2010). *Applied Econometric Time Series*. (3ʳᵈ ed.). New Jersey: John Wiley.

Friedman, M. (1957). *The Theory of the Consumption Function*. New Jersey: Princeton University Press.

Horioka, C. Y. (1996). Capital gains in Japan: Their magnitude and impact on consumption. *The Economic Journal*, *106*(436), 560–577.

Ibrahim, M. H. (2005). Sectoral effects of monetary policy: Evidence from Malaysia. *Asian Economic Journal*, *19*(1), 83–102.

Jansen, D., & Tsai, C. (2010). Monetary policy and stock returns: Financing constraints and asymmetries in bull and bear markets. *Journal of Empirical Finance*, *17*(5), 981–990.

Johansen, S. (1995). *Likelihood-based Inference in Cointegrated Vector Autoregressive Models*. Oxford: Oxford University Press.

Koivu, T. (2012). Monetary policy, asset prices and consumption in China. *Economic Systems*, *36*(2), 307–325.

Kurov, A. (2010). Investor sentiment and the stock market's reaction to monetary policy. *Journal of Banking and Finance*, *34*(1), 139–149.

Lettau, M., & Ludvigson, S. (2001). Consumption, aggregate wealth and expected stock returns. *Journal of Finance*, *56*(9), 815–849.

Ludvigson, S., & Steindel, C. (1999). How important is the stock market effect on consumption? *Economic Policy Review*, *5*(2), 29–51.

Ludvigson, S., Steindel, C., & Lettau, M. (2002). Monetary policy transmission through the consumption-wealth channel. *Economic Policy Review*, *8*(1), 117–133.

Lütkepohl, H. (2011). Vector autoregressive models. *EUI Working Paper*, *ECO 2011/30*, European University Press.

Mayer, C., & Simons, K. (1994). Reverse mortgages and the equity of housing wealth. *Journal of the American Real Estate and Urban Economics*, *22*(2), 235–255.

Modigliani, F., & Brumberg, R. (1954). Utility analysis and the consumption function: An interpretation of cross-section data. In K. K. Kurihara, (ed.), *Post-Keynesian Economics*. New Brunswick.

Morsink, J., & Bayoumi, T. (2001). A peek inside the black box: The monetary transmission mechanism in Japan. *IMF Staff Papers*, *48*(1), 22–57.

Paiella, M. (2007). Does wealth affect consumption? Evidence from Italy. *Journal of Macroeconomics*, *29*(1), 189–205.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

462

Phillips, P. C. B., & Perron, P. (1988). Testing for a unit root in time series regression. *Biometrika, 75*(2), 335–346.

Pissarides, C. (1978). Liquidity considerations in the theory of consumption. *Quarterly Journal of Economics*, *92*(2), 279–296.

Poterba, J. M. (2000). Stock market wealth and consumption. *Journal of Economic Perspectives*, *14*(2), 99–118.

Reimers, H. E. (1992). Comparisons of tests for multivariate cointegration. *Statistical Papers*, *33*(1), 335–359.

Reinsel, G. C., & Ahn, S. K. (1992). Vector autoregressive models with unit roots and reduced rank structure: Estimation, likelihood ratio test, and forecasting. *Journal of Time Series Analysis*, *13*(4), 353–375.

Sherfin, H. M., & Thaler, R. H. (1988). The behavioral life-cycle hypothesis. *Economic Inquiry*, *26*(4), 609–643.

Sims, C. A. (1980). Macroeconomics and reality. *Econometrica*, *48*(1), 1–48.

Sims, C. A. (1986). Are forecasting models usable for policy analysis? *Quarterly Review*, *10*(1), 3–16.

Tan, A., & Voss, G. (2003). Consumption and wealth in Australia. *The Economic Record*, *79*(244), 39–56.

Tang, H. C. (2006a). The relative importance of monetary policy transmission channels in Malaysia. *CAMA Working Paper Series, No 23/2006*. The Australian National University.

Tang, H.C. (2006b). *Monetary policy transmission mechanism in Malaysia: An empirical and methodological exploration*. PhD dissertation, Australian National University. Retrieved from http://trove.nla.gov.au/work/ 35581711?q &versionId= 44267966

Wadud, M., Bashar, O., & Ahmed, H. (2012). Monetary policy and the housing market in Australia. *Journal of Policy Modeling*, *34*(6), 849–863.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

463

Algerian Economic Development after oil and its Alternatives

Abdelhak Senadjki[1], Tameur Nachef[2]

[1]Centre of Economic Studies, Universiti Tunku Abdul Rahman
Email: Abdelhak@utar.edu.my

[2]Imperial Training and Consulting (IMPERIAL-TC), Doha State of Qatar
Email: tameur@imperial-tc.com

Abstract

Algeria is a country with various natural resources. Petroleum and gas resources are the backbone of the Algerian economy. Empirical studies have shown that energy consumption is positively impacted economic growth, which confirmed the growth hypothesis. . Despite this fact, the process of economic development in Algeria hasn't shown an advancement that could guarantee the nation's needs and expectation. As fossil-based energies are believed to be depleted as there is a high probability that Algeria may encounter unstable economic progress due production capacities, which might be reduced over time, as well as the price volatility may cause economic turmoil such as 1986 crisis. This scenario led policy makers in Algeria to find alternatives that can overcome these shortages. Instead of targeting sustainable alternative and environmental friendly resources, , the policy makers in Algeria decided to go for another source of energy (Shell Gas) which it is characterized with high cost of production and causing unbearable damages to the environment. This paper highlights this issue and examines the impact of Shell Gas on the economy as well as on the environment while providing alternative sources that can direct the Algerian economy to next steps and guarantee its sustainability growth. Due to the geographical location of Algeria and its large natural resources, Shell Gas should be one of the last alternatives that might be taken in consideration. Renewable energy is one of the solutions that could contribute to environmental conservation and economic growth sustainability. As a conclusion, this study found that shell gas is not one of those suitable alternatives due to its cost and due to other better possible alternatives as per the Algerian economy and resources.

Keywords: Shell Gas, Renewable Energy, Economic Development, Algeria.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

464

INVESTIGATION OF THE IMPACT OF FINANCIAL VARIABLES ON THE AGRICULTURAL COMMODITY PRICES IN MALAYSIA

Thurai Murugan Nathan and Abirami Malaiarasan
Department of Economics, Faculty of Business and Finance,
Universiti Tunku Abdul Rahman, 31900 Kampar,
Perak, Malaysia

Abstract
Commodity prices explosions, as those recorded in the last decade, may affected by financial variables of its home country. Our analysis produces new estimates of this relationship by focusing on Malaysia which is one of the countries specialized in agricultural sector. This paper aims at investigating the relationship between selected financial variables and the price of the agricultural commodities such as wheat, corn, soybean and sugar. Agricultural commodity prices are particularly vulnerable to financial variables of the country. We use the ARDL method to test for long-run relationship and causality effect. In addition, employ impulse response function to check for the shock of financial variables and the agricultural commodity prices. Our analysis based on quarterly time series data over the period of 2000Q1-2014Q1 with 57 observations. Basically, the results shows that financial variables such as CPI, M0, M1 and M2 able to controlling variables in stabilizing the agricultural commodity prices. The findings able to contribute to the policy reformation for the agricultural commodity price in Malaysia.

Keywords: Financial variables, agricultural commodity prices, ARDL, Non-granger causality test

Introduction

The commodities market in Malaysia has constantly put on a very important part in the economic advancement of the nation (Department of Statistics Malaysia). Agricultural commodity prices emulated generation and exchange designs and were by and large lower by right on time 2013. Malaysia additionally had a much larger power than anticipated because of the soak fall in the world trade and agricultural commodity costs. Furthermore, Malaysia was distinguished as one of the crisis-affected states, prompting the surprising currency depreciation. In this way, financial variables have been thought to be one of the huge components influencing agricultural economy. Thus, most of previous researches are more concentrated in effect, of crude oil and energy prices towards the agricultural commodities since agricultural commodities used as the alternative energy (for instance; Qiang & Ying, 2011; Saban, 2011; Zibin et al., 2009; Saban & Ugur, 2011; and Magali, 2013). Even if the financial variables considered in the energy-commodity relationship, not all the financial variables been considered in the model. Essay on the relationship between commodity prices & other financial variable not researched further (Kyrtsou, 2008). From the point of view of monetary powers, this tie gives a basic idea of investigating the connection between the agricultural commodity prices and fiscal variables. Financial variables, for example, the prices of financial instruments, are regularly connected with desires of future economic occasions (Arturo & Frederic, 1996). Policymakers and market members can profit in a few routes by taking a gander at a brace of well-picked financial variables. Plainly, this reason presupposes that the final answers are correct (Arturo & Frederic, 1996).

There has been a sharp increasing speed in the rate of expansion in world monetary values for agricultural commodities since 2006, advancing following fifteen years of climbing consistently yet respectably (Tresor-Economics, 2008). Ramaprasad & Shawkat (2010) explains that, since agricultural commodities are the essential inputs for numerous produced products especially inputs of food products,

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

465

it is directly affect the general price level. Commodity prices have as of recently re-surfaced in the discourses of the inflationary viewpoint of economic. Gagner (1989) suggest that accomplishing strength in good costs may prompt general price steadiness. As a contribution, this study may provoke some idea to the policy makers in term of stabilizing the price of agricultural commodities using the financial variables. Under price stability individuals can distinguish changes in relative prices, without being confounded by progressions in the general price level. Malaysian agriculture has more often than not passed up a great opportunity in discussion about Malaysia's future. Actually agriculture, alongside fisheries and forestry, still registers for certain per cent of Malaysia's gross domestic product, which is a large amount of money for a nation at Malaysia's phase of investment advancement (Colin & Guest, 2012). The extent of our knowledge, there are no studies on the relationship between financial variables and agricultural commodity prices in Malaysia.

In addition, the monetary authorities, it might additionally be of interest in the commodity-consuming and exporting countries, portfolio managers and traders make an arrest of the interrelationship between the commodity prices and the economic, financial variables, especially now and again of diverse levels of uncertainty in the economic environment (Ramaprasad & Shawkat, 2010). On the other hand, there were studies that discovered significant relationship between macroeconomic variables and universal agricultural commodity prices. Due to this, our main objective is to investigate the relationship between selected financial variable and the price of the agricultural commodity such as wheat, corn, soybean and sugar in Malaysia.

Literature Review

Commonly, when highlight about the financial factors, only few variables are boing considers such as interest rate and exchange rate. Accordingly, Farooq (2009) recommends that stuns to the real interest rate and the dollar, real exchange rate help essentially to fail in just prices. He also finds that commodity prices climb when the real interest rates move down and when the real appreciation of the dollar devalues. Joseph et al., (2012) gives essentialness proof of co-movement in commodity prices and critically recognizes a common element. Their effects confirm the pertinence of the real interest charge per unit of commodity prices, and are consistent with the view that monetary manoeuvring may prompt higher commodity prices. Jeffrey (2013) stated that the real interest rate and inventories both frequently appear with the estimated negative coefficients in the mathematical statements at the literal costs of singular commodity cost. He additionally studied that around the economic action variables, the positive coefficient on Global GDP is huge when the linear trend time term is supplemented by a quadratic. Joseph & Robert (2012) have been found that price volatility attributable to short lived stuns decays with interest rate, while, for some commodity sets, price correlation expands as interest rates decline.

Other than that, the index also playing a function as financial variable which affect agricultural commodity costs. Gunther & Dramane (2011) finds that, in agricultural prospect markets, in that respect is no confirmation of a causality relationship from index funds to fates prices. These finding indicate that an index based exchanging has not been a paramount driver in the generous build in items prices. High volatility throughout financial crisis is the primal wellspring of the high association of farming commodity index and valuable technique index and the heterogeneous structure of the commodity business sector conveys better portfolio enhancement chance throughout the quiet period contrast with turmoil time of financial crisis by Fatih & Nadir (2013). A reasonable proof that index investment does impact returns in this less liquid markets is by Christopher & Simone (2011). They additionally add on a finding that an acceptable confirmation that index investment has been a factor affecting the level and volatility of grains and livestock costs.

Inflation rate is another financial variable which affect the agricultural commodity costs. There is some evidence by previous researches regarding inflation rate. Cetin (2011) found that, in that respect is a positive contemporaneous effect of long term, lasting stuns in commodity advertises on customer inflation, which is not confirmed in linear regressions. So, from commodity costs of inflation exists just at low frequencies. Negative and significant impact of the world price unsteadiness of aggregate agrarian supply found by Julie (2006). The author likewise found that there is a high inflation; frail foundation and

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

466

crudely created budgetary framework help fortify this impact. Dick et al., (2013), found that developments in worldwide sustenance and great costs, measured in down home currency, decided the long run advancement of residential prices. In short-run, agricultural supply shocks influenced nourishment inflation, initiating substantial deviations from long-run price patterns. The author additionally found that monetary policy seems to have suited price shocks, yet cash supply development influenced short-run non-sustenance price inflation. The modification in the impact of good prices on core inflation is influenced by the change in the securing of inflation desires (Scott, 2008). Kamrul & Ruhul (2011) finds that inflation focusing on experience has so far been hit by positive supply shocks.

Katsushi et al., (2010) showed about input prices where there is a huge negative impact of higher oil prices on yield, directed through higher data prices and transportation cost. This is predictable with the finding in The State of Agricultural Commodity Markets (2009). Frank & David finds about money stock that long run proportionality between money and purchaser prices and between money and commodity prices, a moderate rate of connecting up to counterbalance around the variables taking after stuns and commodity prices responding generally rapidly emulating a money stuns and tending to overshoot the new equilibrium values.

Bodart et al., (2012) shows that real exchange rate acknowledges when the price of the heading commodity exported by the nation expansions, gave that the prevailing commodity represents no less than 20 percent of the aggregate export of the nation. They additionally indicated that the bigger the offer of the primary exported commodity, the more potent is the effect on the actual exchange rate. Won et al., (2013) observes that US real exchange rate shows positive and measurably significant correlation with all the worldwide commodity prices think about in their inquiry.

Methodology

Empirical Model and Data Description

The model of the study has been developed as below follow by Roslina et al., 2010.

$$\log Corn_t = \beta_1 + \beta_2(X_t) + \varepsilon_{1t}; \tag{1}$$
$$\log Sugar_t = \gamma_1 + \gamma_2(X_t) + \varepsilon_{2t}; \tag{2}$$
$$\log Soybean_t = \delta_1 + \delta_2(X_t) + \varepsilon_{3t}; \tag{3}$$
$$\log Wheat_t = \varphi_1 + \varphi_2(X_t) + \varepsilon_{4t}; \tag{4}$$

The above equations are used to examine the relationship between financial variables and agricultural commodity prices in Malaysia. In the above equations corn, sugar, soybean and wheat represent the log of agricultural commodity prices over time (t) and X represent financial variables such as CPI, inflation rate, exports, import, M0, M1, M2, M3, market rate, trade balance, domestic credit, international reserves, and stock market over time (t)[24].

Quarterly data utilized in this study. This research is conducted by using a total of 57 observations from the year 2000:Q1 to 2014:Q1. This period is specifically chosen because of the strong economic recovery was accomplished in an environment of relative price stability. The list of variables and the unit measurement listed in the Table 1.

Empirical Testing Procedures

At first, unit root test is used to determine whether the variables under investigation are stationary or non-stationary. In this study, Phillips–Perron (PP) test has been used to test the unit root among the variables. The test regression for the PP tests is:

---

[24] Other financial have been collected and dropped due to found missing variables in data. The variables are such as BOP, House price index, Government budget surplus/ deficit, External government debt and GNI.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

467

$$\Delta yt = \beta_1 + \pi y_{t-1} + u_t \tag{5}$$

where error term(u_t) is I(0) and may be heteroskedastic. The PP tests correct for any serial correlation and heteroskedasticity in the errors u_t of the test regression by straight adapting the test statistics $t_{\pi=0}$ and $T_{\hat{\pi}}$. These modified statistics, denoted Z_t and Z_π, are given by

$$X_t = \left(\frac{\hat{\sigma}^2}{\hat{\lambda}^2}\right)^{1/2} \cdot t_{\pi=0} - \frac{1}{2}\left(\frac{\hat{\lambda}^2 - \hat{\sigma}^2}{\hat{\lambda}^2}\right) \cdot \left(\frac{T \cdot SE(\hat{\pi})}{\hat{\sigma}^2}\right)$$

$$X_\pi = T_{\hat{\pi}} - \frac{1}{2}\frac{T^2 \cdot SE(\hat{\pi})}{\hat{\sigma}^2}\left(\hat{\lambda}^2 - \hat{\sigma}^2\right) \tag{6}$$

Under the null hypothesis that $\pi = 0$, the PP Z_t and Z_π statistics have the same asymptotic conveyances as the ADF t-statistics and standardized bias statistics. The advantage of the PP tests over the ADF tests is that the PP tests are powerful to general manifestations of heteroskedasticity in the error term u_t. An alternate preference is that the client does not need to tag a lag length for the test regression (Gujarati & Porter, 2009). The DF test does not have genuine size mutilations; however it is less effective than the PP test (Maddala & Kim, 1998). According to Choi and Chung (1995) attest that for low recurrence data, as is the situation with this study, the PP test gives off an impression of being more compelling than the ADF test.

Table 1: Summary of the data

Number of variables	Variables	Unit
	Dependent variables	
1	Corn	Price per metric ton
2	Sugar	Price per pound
3	Soybean	Price per metric ton
4	Wheat	Price per metric ton
	Independent variables	
5	CPI	Price index
6	Inflation	Price index
7	Market rate	Unit value
8	Export	Unit value
9	Import	RM
10	M0	RM
11	M1	RM
12	M2	RM
13	M3	RM
14	Trade balance	RM
15	Domestic credit	RM
16	International reserves	RM
17	Stock market	RM

Sources: DataStream

Next, the autoregressive distributed lag (ARDL) approach is conducted in this study to examine the cointegration employed here gives consistent estimate financial variables in the presence of regressor endogeneity and also permits the estimation of distinct estimates of both long-run and short-run elasticities when exogenous variables are not integrated of the same order. In order to empirically analyze the long-run relationships and short run dynamic interactions among the financial variables and agricultural commodity prices this study applies the autoregressive distributed lag (ARDL) cointegration technique. It has three advantages in comparison with other previous and traditional cointegration methods. The first one is that the ARDL does not need that all the variables under study must be integrated of the same order and it can be applied when the under-lying variables are integrated of order

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

468

one, order zero or fractionally integrated. The second advantage is that the ARDL test is relatively more efficient in the case of small and finite sample data sizes. The last and third advantage is that by applying the ARDL technique we obtain unbiased estimates of the long-run model (Harris & Sollis, 2003).

After checking for the long-run relationship, Toda Yamamoto (non-granger causality test) used to examine the direction of causality between variables. It has been noted that the customary Granger (1969) causality test for surmising leads and laughs among integrated variables will wind up in spurious regression results, and the F-test is not substantial unless the variables in levels are cointegrated. New advances in econometric offers the error correction model (because of Engle and Granger (1987)) and the vector auto regression error-correction model (because of Johansen and Jesulius, 1990) as options for the testing of non-causality between economic time series. Shockingly, these tests are lumbering and delicate to the ideas of the aggravation parameters in limited samples and in this way their results are problematic (Toda & Yamamoto, 1995; Zapata & Rambaldi, 1997). The equations of Toda Yamamoto non-granger causality models for each agricultural commodity prices for this study are given as below:

$$X_t = \sum_{i=1}^{n} \alpha_i\, Corn_{t-i} + \sum_{j=i}^{n} \beta_j\, X_{t-j} + \mu_{1t} \tag{7.1}$$
$$Corn_t = \sum_{i=1}^{m} \gamma_i\, Corn_{t-i} + \sum_{j=i}^{m} \delta_j\, X_{t-j} + \mu_{2t} \tag{7.2}$$

$$X_t = \sum_{i=1}^{n} \alpha_i\, Sugar_{t-i} + \sum_{j=i}^{n} \beta_j\, X_{t-j} + \mu_{1t} \tag{8.1}$$
$$Sugar = \sum_{i=1}^{m} \gamma_i\, Sugar_{t-i} + \sum_{j=i}^{m} \delta_j\, X_{t-j} + \mu_{2t} \tag{8.2}$$

$$X_t = \sum_{i=1}^{n} \alpha_i\, Soybean_{t-i} + \sum_{j=i}^{n} \beta_j\, X_{t-j} + \mu_{1t} \tag{9.1}$$
$$Soybean = \sum_{i=1}^{m} \gamma_i\, Soybean_{t-i} + \sum_{j=i}^{m} \delta_j\, X_{t-j} + \mu_{2t} \tag{9.2}$$

$$X_t = \sum_{i=1}^{n} \alpha_i\, Wheat_{t-i} + \sum_{j=i}^{n} \beta_j\, X_{t-j} + \mu_{1t} \tag{10.1}$$
$$Wheat = \sum_{i=1}^{m} \gamma_i\, Wheat_{t-i} + \sum_{j=i}^{m} \delta_j\, X_{t-j} + \mu_{2t} \tag{10.2}$$

Toda and Yamamoto (1995) proposed a basic methodology obliging the estimation of an 'augmented' VAR, actually when there is cointegration, which ensures the asymptotic dissemination of the MWald statistic. Thus, the Toda-Yamamoto causality system has been commemorated as the long-run causality tests. Everything one needs to do is to focus the maximal order of integration dmax, which hope to happen in the model and build a VAR in their levels with a sum of (k + dmax) lags. Toda and Yamamoto call attention to that, for d=1, the lag selection process is continuously valid, at least asymptotically, subsequently k>=1=d. If d=2, then the procedure is valid unless k=1. Furthermore, rendering to Toda and Yamamoto, the MWald statistic is valid regardless whether a series is I(0), I(1) or I(2), non-cointegrated or cointegrated of a random order.

Finally, impulse response function (IRF) of an element framework is its yield when introduced with a concise data indicator, called an impulse. All the for the most part, an impulse response alludes to the response of any dynamic framework in response to some outer change. Regarding the impulse response functions, the beginning stun in X_t that causes Y_t and ΔY_t to change is step by step dissolved about whether again to the initial equilibrium. As far as the unit response function, the starting stun in presidential endorsement causes ΔY_t to change. It then slowly methodologies its new equilibrium where ΔY_t is changing by a given sum every period. A comparative story might be told with the unit response function on Y_t. The impulse response is similarly applied to evaluate the viability of a policy change.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September 2014

469

Empirical Result

Unit Root Test (Phillips-Perron test)

As notice prior, unit root test is a stationary test that used to focus the order of integration of the variables. Consequently, we utilize Phillips-Perron (PP) test at level and first difference structure by making into note of both trend & intercept and intercept without trend for level and for the first difference we took intercept and none to analyze the stationary status for every variables (Phillips & Perron, 1988). Table 2 is the results of unit root test under level structure, and first difference.

Table 2: PP Unit Root Test Result for Malaysia

| Variables | Phillips-Perron test statistic | | | |
| | Level | | First Difference | |
	Intercept	Trend and Intercept	None	Intercept
Financial variables				
CPI	-	-2.703(4)	-	-6.192(7)*
Inflation rate	-1.083(2)	-	-6.603(3)*	-
Exports	-	-2.479(1)	-	-6.783(6)*
Imports	-	-2.788(1)	-	-6.735(2)*
M0	-	-4.151(4)*	-	-
M1	-	-4.805(2)*	-	-
M2	-0.051(4)	-	-2.573(3)**	-
M3	-	-3.231(5)	-	6.066(6)*
Market rate	-	-2.141(3)	-	-7.021(3)*
Trade	-	-3.881(2)**	-	-
Domestic	5.409(11)	-	-2.127(4)**	-
Reserves	-0.8.61(2)	-	-4.599(2)*	-
Stock	-	-4.295(2)*	-	-
Agricultural commodities				
Corn	-	-3.144(1)	-	-6.138(7)*
Sugar	-2.131(4)	-	-7.339(22)*	-
Soybean	-	-3.388(6)	-	-14.692(54)*
Wheat	-	-3.200(1)	-	-7.124(6)*

Notes: All variables are transformed to natural logs. Asterisks (*), (**) and (***) indicate statistically significant at the 1%, 5% and 10% levels, respectively. The optimum lag length for PP test was automatically selected based on Newey-West using Barlett Kernel.

Table 2 presents the aftereffects of Phillips-Perron unit root test for 17 variables. The result from the table demonstrates that all the series are integrated either I(0) or I(1). However none of them are integrated at I(2), recommending their qualification to be inspected in the ARDL bounds test method.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

470

ARDL Cointegration Test

As specified prior, the variables considered in this study are mix of I(0) and I(1) series. Accordingly, these techniques for cointegration are not fitting and can't be utilized. Before we directing the ARDL bound test, as a first step, the order of lags ought to be gotten from either utilizing the Akaike Information Criterion (AIC) or Schwartz-Bayesian Criterion (SBC). Taking after on Pesaran & Pesaran (1997), in this study have choose the ideal model by utilizing Schwartz-Bayesian Criteria (SBC) by selecting minimum lag length due this study give little size of observation which is 57 (Shrestha & Khorshed, 2005)[25]. The ascertained F-statistics are contrasted and the critical values got from Pesaran, Shin and Smith (2001) and Pesaran and Pesaran (2009). The bound testing results are presented in the Table 3. The results propose that there are cointegration vectors which are in the middle of corn and cpi, corn and M2, and corn and domestic which are significant at 1%, other than that, corn and market, corn and M1, and wheat and export are significant at 5% ultimately, variables that cointegrated at significant level of 10% are corn and M3, soybean and M3, wheat and import, and wheat and domestic.

---

[25] The lag selection is not reported in the paper. It will be provided upon requested.

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

471

Table 3: Bound Testing Results for Malaysia

Dependent Variable	Independent Variable	Optimum Lag	F-Test [Prob]	Serial Correlation[a] [Prob]	Functional Form[b] [Prob]	Normality[c] [Prob]	Heteroscedasticity[d] [Prob]
CORN	CPI	7	11.994[0.000]*	2.902[0.574]	0.442[0.506]	5.986[0.050]	0.685[0.408]
CORN	INFLA	4	2.689[0.080]	3.182[0.528]	2.487[0.115]	0.466[0.792]	0.243[0.622]
CORN	MARKET	4	5.915[0.006]**	6.863[0.143]	1.475[0.225]	1.109[0.574]	0.012[0.911]
CORN	EXPORT	8	1.714[0.198]	8.630[0.071]	1.733[0.188]	0.961[0.618]	0.012[0.912]
CORN	IMPORT	8	1.638[0.212]	5.934[0.204]	1.471[0.225]	0.265[0.875]	1.072[0.300]
CORN	M0	8	3.104[0.060]	2.368[0.668]	0.595[0.440]	0.616[0.735]	0.043[0.835]
CORN	M1	1	6.850[0.002]**	8.992[0.061]	0.404[0.525]	3.642[0.162]	0.164[0.685]
CORN	M2	7	10.034[0.000]*	6.474[0.166]	1.061[0.303]	0.619[0.734]	0.005[0.941]
CORN	M3	8	5.496[0.009]***	3.626[0.459]	3.736[0.053]	1.052[0.591]	0.092[0.762]
CORN	TRADE	8	1.572[0.225]	4.631[0.327]	3.582[0.058]	0.645[0.724]	2.088[0.148]
CORN	DOMESTIC	7	9.013[0.001]*	9.400[0.052]	2.357[0.125]	5.856[0.053]	0.001[0.974]
CORN	RESERVES	8	1.883[0.170]	8.960[0.062]	1.372[0.241]	0.108[0.947]	0.004[0.945]
CORN	STOCK	8	0.266[0.768]	6.780[0.148]	0.045[0.830]	0.763[0.683]	0.023[0.878]
SUGAR	CPI	8	3.610[0.040]	6.912[0.141]	2.982[0.084]	0.370[0.831]	0.743[0.389]
SUGAR	INFLA	7	1.963[0.157]	7.972[0.093]	0.187[0.665]	0.783[0.676]	0.103[0.747]
SUGAR	MARKET	7	1.541[0.230]	4.643[0.326]	0.122[0.726]	0.763[0.683]	0.402[0.526]
SUGAR	EXPORT	8	2.094[0.141]	4.019[0.403]	1.263[0.261]	0.775[0.678]	1.954[0.162]
SUGAR	IMPORT	8	1.437[0.254]	5.243[0.263]	0.169[0.681]	1.159[0.560]	1.021[0.312]
SUGAR	M0	8	2.323[0.116]	7.325[0.120]	0.807[0.369]	2.298[0.317]	0.053[0.817]
SUGAR	M1	8	3.113[0.060]	7.266[0.122]	0.318[0.573]	0.217[0.897]	0.358[0.549]
SUGAR	M2	8	2.839[0.075]	2.657[0.617]	0.201[0.654]	2.730[0.255]	0.301[0.583]
SUGAR	M3	7	2.291[0.117]	6.516[0.164]	0.001[0.972]	1.925[0.382]	0.001[0.967]
SUGAR	TRADE	7	1.765[0.187]	8.488[0.075]	0.163[0.686]	1.293[0.524]	0.116[0.732]
SUGAR	DOMESTIC	8	3.799[0.034]	4.234[0.375]	0.071[0.790]	1.326[0.515]	0.338[0.561]
SUGAR	RESERVES	8	3.433[0.046]	3.408[0.492]	1.782[0.182]	2.434[0.296]	0.643[0.422]
SUGAR	STOCK	8	2.335[0.115]	4.033[0.401]	2.681[0.102]	0.025[0.987]	0.008[0.926]

Notes: (*) (**) and (***) indicate that the variables were co-integrated at 1%, 5% and 10% significance level. The optimum lag was selected using SBC. The maximum lag was fixed at 9. [a] Lagrange multiplier test of residual serial correlation. [b] Ramsey's RESET test using the square of the fitted values. [c] Based on a test of skewness and kurtosis of residuals [d] Based on the regression of squared residuals on squared fitted values. The critical values were obtained from Table CI (iii) Case III: Unrestricted intercept and no trend reported in Pesaran *et al.* (2001).

International Conference on Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September 2014

472

Table 3: Bound Testing Results for Malaysia (Continued)

Dependent Variable	Independent Variable	Optimum Lag	F-Test [Prob]	Serial Correlation[a] [Prob]	Functional Form[b] [Prob]	Normality[c] [Prob]	Heteroscedasticity[d] [Prob]
SOYBEAN	CPI	3	3.768[0.031]	3.972[0.410]	0.36640.985]	18.11[0.000]	0.815[0.366]
SOYBEAN	INFLA	8	2.086[0.142]	6.613[0.158]	2.258[0.133]	0.892[0.640]	1.004[0.316]
SOYBEAN	MARKET	8	3.770[0.035]	3.730[0.444]	0.963[0.326]	5.566[0.062]	0.010[0.917]
SOYBEAN	EXPORT	3	1.922[0.158]	4.475[0.345]	2.866[0.090]	4.660[0.097]	0.022[0.882]
SOYBEAN	IMPORT	8	2.085[0.143]	5.903[0.206]	3.286[0.070]	1.715[0.424]	0.128[0.720]
SOYBEAN	M0	4	4.052[0.025]	6.954[0.138]	0.982[0.322]	7.221[0.027]	0.402[0.998]
SOYBEAN	M1	5	2.379[0.106]	3.982[0.408]	3.292[0.070]	4.997[0.082]	0.072[0.788]
SOYBEAN	M2	8	4.637[0.018]	2.932[0.569]	2.009[0.156]	5.080[0.079]	0.014[0.904]
SOYBEAN	M3	6	5.037[0.012]***	2.601[0.627]	0.852[0.356]	4.928[0.085]	0.548[0.459]
SOYBEAN	TRADE	8	0.687[0.511]	2.673[0.614]	1.876[0.171]	1.748[0.417]	0.375[0.540]
SOYBEAN	DOMESTIC	8	2.910[0.070]	0.187[0.996]	2.252[0.133]	1.044[0.593]	0.403[0.525]
SOYBEAN	RESERVES	8	2.244[0.124]	8.558[0.073]	2.772[0.096]	1.428[0.490]	0.327[0.567]
SOYBEAN	STOCK	8	0.517[0.601]	6.588[0.159]	0.490[0.484]	7.474[0.024]	0.626[0.429]
WHEAT	CPI	8	3.532[0.042]	6.605[0.158]	0.432[.511]	1.343[0.511]	1.094[0.295]
WHEAT	INFLA	7	3.765[0.034]	6.969[0.138]	3.085[0.079]	0.521[0.771]	0.435[0.509]
WHEAT	MARKET	8	3.580[0.041]	3.481[0.481]	1.099[0.294]	1.016[0.602]	0.023[0.878]
WHEAT	EXPORT	8	6.892[0.004]**	6.106[0.191]	0.143[0.705]	2.266[0.322]	2.073[0.150]
WHEAT	IMPORT	8	5.157[0.012]***	0.772[0.942]	0.936[0.333]	2.548[0.280]	0.977[0.975]
WHEAT	M0	3	4.309[0.020]	7.260[0.123]	0.023[0.878]	11.38[0.003]	0.107[0.743]
WHEAT	M1	8	2.108[0.140]	8.795[0.066]	1.837[0.175]	2.023[0.364]	0.002[0.959]
WHEAT	M2	2	4.745[0.013]	5.773[0.217]	0.469[0.493]	11.24[0.004]	1.593[0.207]
WHEAT	M3	6	3.942[0.029]	1.593[0.810]	8.010[0.005]	1.605[0.448]	3.696[0.055]
WHEAT	TRADE	4	0.678[0.513]	4.782[0.310]	3.710[0.054]	5.468[0.065]	1.368[0.242]
WHEAT	DOMESTIC	8	4.930[0.014]***	8.121[0.087]	2.808[0.094]	0.003[0.998]	4.914[0.027]
WHEAT	RESERVES	6	3.916[0.029]	3.514[0.476]	1.421[0.233]	4.173[0.124]	1.748[0.186]
WHEAT	STOCK	5	1.660[0.203]	2.907[0.573]	0.011[0.915]	0.517[0.772]	12.155[0.000]

Notes: (*) (**) and (***) indicate that the variables were co-integrated at 1%, 5% and 10% significance level. The optimum lag was selected using SBC. The maximum lag was fixed at 9. [a] Lagrange multiplier test of residual serial correlation. [b] Ramsey's RESET test using the square of the fitted values. [c] Based on a test of skewness and kurtosis of residuals [d] Based on the regression of squared residuals on squared fitted values. The critical values were obtained from Table CI (iii) Case III: Unrestricted intercept and no trend reported in Pesaran *et al.* (2001).

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

473

Table 4: Long-run Coefficients, and Short-run Error-Correction Model for Malaysia

Dependent variable	Regressor	Coefficient	Standard Error	t-ratio [Prob]
Panel A: Estimated long-run coefficients				
LNCORN {2,0}	LNCPI	0.035	0.005	7.457[0.000]
	C	3.045	0.445	6.846[0.000]
LNCORN {1,0}	LNMARKET	-1.207	0.114	-10.563[0.000]
	C	10.536	0.402	26.234[0.000]
LNCORN {1,0}	LNM1	0.682	0.112	6.086[0.000]
	C	-1.819	1.336	-1.361[0.179]
LNCORN {2,0}	LNM2	0.660	0.105	6.270[0.000]
	C	-2.597	1.428	-1.819[0.075]
LNCORN {2,1}	LNM3	0.844	0.111	7.615[0.000]
	C	-5.340	1.515	-3.524[0.001]
LNCORN {2,0}	LNDOMESTIC	0.981	0.156	6.291[0.000]
	C	-6.965	2.118	-3.289[0.002]
LNSOYBEAN {1,0}	LNM3	0.718	0.141	5.084[0.000]
	C	-2.839	1.923	-1.473[0.147]
LNWHEAT {1,0}	LNEXPORT	0.810	0.306	2.644[0.011]
	C	-2.031	3.298	-0.616[0.541]
LNWHEAT {1,0}	LNIMPORT	0.890	0.286	3.112[0.003]
	C	-2.728	3.023	-0.902[0.372]
LNWHEAT {1,0}	LNDOMESTIC	0.603	0.246	2.452[0.018]
	C	-1.493	3.337	-0.447[0.657]
Panel B: Error-correction representation for the selected ARDL model				
ΔLNCORN {2,0}	ΔLNCPI	0.014	0.004	3.216[0.002]
	ΔC	1.244	0.359	3.461[0.001]
	EC_t (-1)	-0.481	0.109	-3.741[0.001]
ΔLNCORN {1,0}	ΔLNMARKET	-0.521	0.096	-5.402[0.000]
	ΔC	4.545	0.799	5.686[0.000]
	EC_t (-1)	-0.431	0.078	-5.543[0.000]
ΔLNCORN {1,0}	ΔLNM1	0.205	0.075	2.716[0.009]
	ΔC	-0.546	0.444	-1.231[0.224]
	EC_t (-1)	-0.300	0.098	-3.065[0.003]
ΔLNCORN {2,0}	ΔLNM2	0.233	0.077	3.015[0.004]
	ΔC	-0.916	0.582	-1.574[0.122]
	EC_t (-1)	-0.353	0.099	-3.570[0.001]
ΔLNCORN {2,1}	ΔLNM3	3.216	1.179	2.729[0.009]
	ΔC	-2.175	0.844	-2.576[0.013]
	EC_t (-1)	-0.407	0.102	-3.995[0.000]
ΔLNCORN {2,0}	ΔLNDOMESTIC	0.357	0.127	2.816[0.007]
	ΔC	-2.534	1.150	-2.204[0.033]
	EC_t (-1)	-0.364	0.108	-3.370[0.002]
ΔLNSOYBEAN {1,0}	ΔLNM3	0.270	0.092	2.940[0.005]
	ΔC	-1.065	0.763	-1.395[0.169]
	EC_t (-1)	-0.376	0.112	-3.369[0.001]
ΔLNWHEAT {1,0}	ΔLNEXPORT	0.238	0.129	1.838[0.072]
	ΔC	-0.597	1.014	-0.588[0.559]
	EC_t (-1)	-0.294	0.104	-2.831[0.007]
ΔLNWHEAT {1,0}	ΔLNIMPORT	0.273	0.120	2.266[0.028]
	ΔC	-0.836	0.955	-0.876[0.386]
	EC_t (-1)	-0.307	0.097	-3.165[0.003]
ΔLNWHEAT {1,0}	ΔLNDOMESTIC	0.169	0.096	1.755[0.086]
	ΔC	-0.419	0.964	-0.435[0.666]
	EC_t (-1)	-0.281	0.101	-2.776[0.008]

Notes: [Prob] indicate the Probability. { } represent the lag selected based on Schwarz Bayesian Criterion (SBC). EC_t (-1) represent the error-correction term.

Besides that, likewise give the aftereffect of Serial Correlation, Functional Form, Normality and Heteroscedasticity for every combination of financial variables and agricultural commodity prices. In

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

474

picking the short-run dynamics of the ARDL-ECM, the lag structure was defined on the premise of the SBC model selection criteria utilized throughout the OLS estimation of the bound tests. At the point when the financial variables expand, the agricultural commodity prices additionally will be builds. ECM gives the criticism or the speed of adjustment whereby short-run dynamics focalize to the long-run equilibrium way in model.

Microfit(4.0) gives assessments of the ECM intimated by the chose ARDL model. Banerjee et al., (1998) stated that a very significant error-correction term is the further proof of the existence of a stable long-term relationship. The Long-run relationship and ECM results are presented in the Table 4. Panel A shows estimated long-run coefficients. Panel B of the table demonstrates the error-correction representation for the chose ARDL model. From Panel A can gauge the relationship and long-run effect between variables. Negative evaluated coefficient between corn and market state that negative relationship between corn and market, when the market rate expands, the price of corn abatements. While other nine long run coefficients gives positive hint which demonstrates positive relationship between those financial variables and the agricultural commodity prices. At the point when the financial variables expand, the agricultural commodity prices additionally will be builds. For example, from the above table, can see that cpi has significant relationship with the corn. This state that cpi having long-run effect on corn. In addition, the negative sign of the ECM term confirms the expected convergence process in the long-run dynamics of corn price and cpi.

Non-Granger causality Test (Toda Yamamoto approach)

The being of a long-run relationship among the variables indicates that at that place must be at least one way of causality to check the existence of long-run equilibrium relationship (Engle & Granger, 1987). Having determined that a cointegration relationship exists between agricultural commodity costs and financial variables, the second aim of this work is to verify if the financial variable Granger cause agricultural prices or inversely using Toda Yamamoto causality test in Eviews. The estimates of MWALD test show that the test result follows the chi-square distribution with the appropriate lag length along with their associated probability. Yet the residual of the combination also shows the mix of unidirectional, bidirectional, and no causality between the financial variables and the agricultural commodity costs. If the probability value is less than 10 per cent, then we conclude that the variable having causality relationship while, probability more than ten per cent state there is no causality relationship between both variables. The causality results represented in Table 5.

Impulse response

This impulse has been estimated using VAR estimation in Eviews for 20 quarters[26]. While, the response of cpi to corn shows there is a stable movement along the neutral point for 20 quarters forwarded. On the off chance that we can go down the framework's info sign into a whole of a pack of segments, then the output is equivalent to the aggregate of the framework yields for each of those sections.

Conclusion and Policy Recommendation

At that place are few researches done in this study regarding financial variables and agricultural commodity prices in the late years. The present report analyzes the relationship between financial variables and the agricultural commodity costs by focusing on Malaysia. By using the technique of ARDL, a model to ascertain the result of financial variables on agricultural commodity prices is estimated for Malaysia, with the sample period from 2000Q1 to 2014Q1. From the result, have been found that there are ten combinations of financial variables are cointegrated with agricultural commodity costs. By using ten cointegrated variables study proceed with the analysis by conducting long-run coefficient and also short-run error-correction model. Then, follow by Toda Yamamoto approach to test Granger causality effect between financial variables and agricultural commodity costs. Finally, by using the VAR estimates we had run impulse response for all the financial variables with each agricultural variable of corn, sugar,

---

[26] The impulse response function results are not included in this paper. It will be provided upon requested.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

475

soybean and also wheat. Overall this study found that about 26 combinations of variables giving unidirectional relationship, 4 variables are bidirectional relationship and 22 are showing no causality relationship between financial variables and agricultural commodity prices.

Table 5: Toda-Yamamoto Causality (modified WALD) Test Result

Causality Relationship	Directions	Causality Relationship	Directions
CPI and corn	CPI → corn	CPI and sugar	Cpi →sugar
Inflation and corn	No causality	Inflation and sugar	Inflation ←sugar
Market rate and corn	Market → corn	Market rate and sugar	Market ←sugar
Export and corn	No causality	Export and sugar	No causality
Import and corn	Import ← corn	Import and sugar	No causality
M0 and corn	No causality	M0 and sugar	M0 → sugar
M1 and corn	M1 → corn	M1 and sugar	M1 → sugar
M2 and corn	M2 → corn	M2 and sugar	No causality
M3 and corn	M3 → corn	M3 and sugar	M3 → sugar
Trade and corn	No causality	Trade and sugar	Trade ← sugar
Domestic credit and corn	Domestic →corn Corn ←domestic	Domestic credit and sugar	No causality
International Reserves and corn	No causality	International Reserves and sugar	No causality
Stock market and corn	No causality	Stock market and sugar	Stock → sugar
CPI and soybean	No causality	CPI and wheat	Cpi → wheat
Inflation and soybean	No causality	Inflation and wheat	Inflation → wheat
Market rate and soybean	Market → soybean	Market rate and wheat	Market ← wheat Wheat → market
Export and soybean	Export → soybean	Export and wheat	Export → wheat
Import and soybean	No causality	Import and wheat	Import → wheat
M0 and soybean	M0 → soybean	M0 and wheat	M0 ← wheat Wheat → m0
M1 and soybean	M1 → soybean	M1 and wheat	M1 ← wheat Wheat → m1
M2 and soybean	No causality	M2 and wheat	No causality
M3 and soybean	M3 → soybean	M3 and wheat	No causality
Trade and soybean	No causality	Trade and wheat	No causality
Domestic credit and soybean	No causality	Domestic credit and wheat	Domestic → wheat
International Reserves and soybean	No causality	International Reserves and wheat	No causality
Stock market and soybean	Stock ← soybean	Stock market and wheat	Stock → wheat

Notes: The direction if the causality effect is derives from the chi-square value. The chi-square value and probability value didn't include in the table due to the space constraint. It will be provided upon requested.

In term of policy, the government able to control the price of corn if stabilize the CPI rate, M1, M2, M3 and Domestic credit. When the market exchange rate increases the monetary value of corn drop, this will decrease the corn price, where the corn price relatively becomes cheaper and there will be an increase in export for the maize. For sugar price, it is holding the neutral relationship with the financial variables. In this case, policy on the financial factors not going to give impact on the price of sugar. For the soybean price, the policymakers should concentrate on expanding monetary policy to increase the flow of money in economy (Angsar et al., 2012). To avoid this situation and make both parties beneficial, Central Bank should focus on expand the monetary policy to overcome the inflation problem which cause by the positive relationship between financial variables and price of soybean. In the interim, to be substantially more compelling as a market balancing out instrument, the confirmation is suggesting that

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

476

we may require to give careful consideration to the nature of freely secured and put away wheat stocks, and other non-market drivers (Dipak et al., 2011).

It is getting more and more important that farmers and agribusiness understand the linkages between the financial variables and agricultural commodity costs. So that, this study will help to contribute suggestions to the regime and to policy makers in term to stabilizing the cost of agricultural trade goods by using selected financial variables. This study also generally informed consumption and investment choices and to apportion resources all more efficiently by reducing inflation risk. These discoveries further propose that developments of financial variables have had and will keep on having a more noteworthy impact on the strength and maintainability of the agricultural region in Malaysia as Malaysia depend all the more vigorously on household and universal business powers for benefits and business good fortunes. In addition, for future research the focus can be given greater extent on the issue of other financial variables by trying to examine by splitting the period into three characters where one before the crisis, during crisis and third is after crisis. Furthermore, include oil price or energy price as independent variables to detect the changes in agricultural commodity price can be another significant contribution in future.

Acknowledgement:

References

Akram, Q. F. (2009). Commodity prices, interest rates and the dollar. *Energy Economics*. doi:10.1016/j.eneco.2009.05.016

Belke, A., Bordon, I. & Volz, U. (2012). Effects of Global Liquidity on Commodity and Food Prices.

Banerjee, A., Lumsdaine, R. L., & Stock, J. H. (1992). Recursive and Sequential Tests of the Unit-Root and Trend-Break Hypotheses: Theory and International Evidence. *Journal of Business & Economic Statistics*. doi:10.1080/07350015.1992.10509905

Bodart, V., Candelon, B., & Carpantier, J. F. (2012). Real exchanges rates in commodity producing countries: A reappraisal. *Journal of International Money and Finance*.

Kyrtsou, C. & Vorlow, C (2008). Modelling non-linear comovements between time series. *Journal of Macroeconomics*. doi:10.1016/j.jmacro.2008.02.001

Cetin Ciner. (2011). Commodity prices and inflation: Testing in the frequency domain. *Reserach in International Business and Finance*.

Choi, I., & Chung, B. S. (1995). Sampling frequency and the power of tests for a unit root: A simulation study. *Economics Letters*. doi:10.1016/0165-1765(95)00656-Z

Christopher L. Gilbert., & Simone Pfuderer. (2012). Index Funds Do Impact Agricultural Prices.

Dwight R. Sanders., Scott H. Irwin., & Robert P Merrin. (2008). A Speculative Bubble in Commodity Futures Prices? Cross-Sectional Evidence.

Engle, R. E., & Granger, C. W. (1987). Cointegration and error-correction: Representation, estimation, and testing.

Estrella, A., & Mishkin, F. S. (1996). Predicting U.S. recessions: financial variables as leading indicators.

Frank Browne., & David Cronin. (2010). Commodity prices, money and inflation. *Journal of Economics and Business*.

Gunther Capelle-Blancard., & Dramane Coulibaly. (2011). Index Trading and Agricultural Commodity Prices: A Panel Granger Causality Analysis.

Hammoudeh, S., & Bhar, R. (2010). Re-examining the dynamic causal oil?macroeconomy relationship. *International Review of Financial Analysis*. doi:10.1016/j.irfa.2010.09.002

Harris, R., & Sollis, R. (2003). Applied Time Series Modelling and Forecasting. John Wiley & Sons Ltd., Chichester, England.

Hassan, A. F., & Salim, R. A. (2011). Is there any Link Between Commodity Price and Monetary Policy? Evidence from Australia.

Imai, K. S., Gaiha, R., Thapa, G., Annim, S. K., & Gupta, A. (2011). Performance of Microfinance Institutions-A Macroeconomic and Institutional Perspective.

Irwin, S. H., & Good, D. L. (2009). Market Instability in a New Era of Corn, Soybean, and Wheat Prices.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

477

Jeffrey A. Frankel. (2013). Effects of speculation and interest rates in a "carry trade" model of commodity prices. *Journal of International Money and Finance*.

Johansen, S., & Juselius, K. (1990). Maximum Likelihood Estimation and Inference on Cointegration-With Applications to the Demand for Money.

Joseph P. Janzen., Colin A. Carter., Aaron D. Smith., & Michael K. Adjemian. (2012). Deconstructing Wheat Price Spikes: A Model of Supply and Demand, Financial Speculation, and Commodity Price Comovement. *United States Department of Agriculture*.

Joseph W. Gruber., & Robert J. Vigfusson. (2012). Interest Rates and the Volatility and Correlation of Commodity Prices. *International Finance Discussion Papers*.

Katsushi S. Imai., Raghav Gaiha., & Ganesh Thapa. (2010). Supply response to changes in agricultural commodity prices.

Maddala, G. S., & Kim, In-Moo. (1998). Unit Roots, Cointegration, and Structural Change. Cambridge University Press.

Magali Dauvin. (2013). Energy prices and the real exchange rate of commodity-exporting countries.

Nazlioglu, S., & Soytas, U. (2011). World oil prices and agricultural commodity prices: Evidence from an emerging market. *Energy Economics*. doi:10.1016/j.eneco.2010.11.012

Nazlioglu, S., & Soytas, U. (2011). World oil prices and agricultural commodity prices: Evidence from an emerging market. *Energy Economics*. doi:10.1016/j.eneco.2010.11.012

Pesaran, M. H., & Pesaran, B. (1997). Working with Microfit 4.0. Cambridge: Camfit Data Ltd.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, *16*, 289-326.

Phillips, P. C., & Perron, P. (1988). Testing for a unit root in time series regression. *Biometrika*. doi:10.1093/biomet/75.2.335

Qiang Ji., & Ying Fan. (2011). How does oil price volatility affect non-energy commodity markets? *Applied Energy*, *89*(1), 273?280.

Roslina Ali., Abu Kasim Ali., Fazleen Abd.Fatah., & Engku Elini Engku Ariff. (2010). Linkage of macroeconomic indicators and agricultural variables in Malaysia. *Economic and Technology Management Review*, *5*, 1-9.

SAID, S. E., & DICKEY, D. A. (1984). Testing for unit roots in autoregressive-moving average models of unknown order. *Biometrika*. doi:10.1093/biomet/71.3.599

Shrestha, M. B., & Chowdhury, K. (2005). A Sequential Procedure for Testing Unit Roots in the Presence of Structural Break in Time Series Data: An Application to Quarterly Data of Nepal, 1970-2003.

SUBERVIE, J. (2006). The impact of world price instability on agricultural supply according to several macroeconomic factors.

Toda, H. Y., & Yamamoto, T. (1995). Statistical inference in vector autoregressions with possibly integrated processes. *Journal of Econometrics*. doi:10.1016/0304-4076(94)01616-8

Wright, B. (2009). International grain reserves and other instruments to address volatility in grain markets.

Zapata, H. O., & Rambaldi, A. N. (1997). Monte Carlo Evidence on Cointegration and Causation. *Oxford Bulletin of Economics and Statistics*. doi:10.1111/1468-0084.00065

Zibin Zhang., Luanne Lohr., Cesar Escalante., & Michael Wetzstein. (2009). Ethanol, Corn, and Soybean Price Relations in a Volatile Vehicle-Fuels Market. *Energies*, 320-339. doi:10.3390/en20200320

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

478

The M&A Announcement in Telecommunication Companies in Malaysia: Wealth Creating Opportunity for Shareholders

Pui-Yee Wan[a], Yoke-Kee Eng[b], Chin-Yoong Wong[c]

[a]*Universiti Tunku Abdul Rahman, Malaysia, wanpy@utar.edu.my*

[b]*Universiti Tunku Abdul Rahman, Malaysia, engyk@utar.edy.my*

[c]*Universiti Tunku Abdul Rahman, Malaysia, wongcy@utar.edu.my*

ABSTRACT

This study focuses on Merger and acquisition (M&A) announcement made by telecommunication companies in Malaysia which might create wealth to shareholders. Since nineties, M&A has been frequently used as an expansion of business in the corporate world. The wealth creating opportunities of M&A announcements has become a great interest in empirical studies. In Malaysia, statistics shown that there is a growth of M&A activities in telecommunication sector from 13% to 23% among all the other sectors through 2011 to 2013. However, very few studies were conducted on telecommunication sector as most of the existing studies were focusing on banking sector in which the rationale of merging is different. This study fills the gap in the literature by shedding lights on the M&A of telecommunication sector in Malaysia. This study uses event study methodology together with the Generalized Autoregressive Conditional Heteroscedasticity (1, 1) (GARCH (1, 1)) model to evaluate the impact of M&A announcement with respect to the value of the telecommunication companies in Malaysia. The assumptions of normally distributed and constant variances are relaxed and results will be more robust and reliable by using GARCH (1, 1) model. This analysis will be able to give stock market investors an overview on the wealth creation opportunity during M&A events, especially in telecommunication sector.

Keywords: Merger and Acquisition, M&A, Event study, GARCH (1, 1), Telecommunication.

INTRODUCTION

A combination of two independent companies is known as a merger whereas a takeover of a company by another refers to as acquisition (SIDC Malaysia Investor, 2013). Merger and Acquisition (M&A) has long been a popular business investment to expand, achieve economies of scales and improve operational efficiency. The intentions of an M&A are most probably for a better company and better prospect. Jensen and Ruback (1983) mentioned that acquisitions are seen as an effective disciplinary tool. Organizations believe that they will benefit from the M&A. Business in Malaysia usually combines in a few methods which include the acquiring of the voting shares of the company, the acquiring of assets or business, through a joint venture, combining two or more business held under one entity and using a court-sanctioned scheme of arrangement under section 176 of the company acts 1965 (Loong, 2008).

There are many reasons for combining or acquiring businesses. Mainly, there are three motives for undertaking M&A transaction which are to improve profitability and revenue, faster growth in scale and quicker time to market acquisition of new technology or competence (Mantravadi & Reddy, 2008). Besides, acquiring the know-how assets of other firms might be a motive for M&A. In this fast changing economy, companies want to diversify their business in different directions in order to survive and remain profitable. Pressures for financial innovation, economic growth, diversity and expansion and technological advances encourage the M&A transactions. Another reason for M&A of a company may be to broaden the range of related products and the market (Tanuvats, 2008).

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

479

It might be seen as good news when there is an announcement of M&A. Wondering if M&A could bring wealth creating opportunity to shareholders is always of great interest. In Malaysia, it was seen to have increasing cases of M&A recent years especially in telecommunication industry from 13% to 23% among all the other sectors through 2011 to 2013 (Thomson One Banker Database, 2013). With this significant increase number of deals in telecommunication sector, it is not certain that the M&A announcements create shareholder wealth opportunity by providing any abnormal return on the share.

Most of the studies on Malaysia's M&A such as Sufian (2004); Ismail and Rahim (2009); Radam, Baharom, Dayang and Ismail (2009); Sufian, Muhamad, Bany, Yahya and Kamarudin (2012) were focused on banking industry. These studies only applied on the banking industry. It may not give a comprehensive explanation of the effect of M&A on the other industries especially in telecommunication. Therefore, effects of M&A announcement in telecommunication industry were investigated in this research.

There are a huge amount of previous studies on M&A used accounting method and have yieled inconsistent results (Pazarski, Vogiatzogloy, Christodoulou, & Drogalas, 2006; Cabanda & Pajara-Pascual, 2007; Marimuthu, 2008; Usman, Mehboob, & Ullah, 2010). However, accounting method using financial ratio has received a lot of criticisms such as different companies will practice different accounting methods, annual reports are subjected to manipulation which causes the lack of comparability among the firms. This might not reveal the true impact of the M&A deals on firms' value. This study will employ event study methodology as event study analysis has been applied to a variety of firm specific and economy wide event, which of course including M&A (Fama, Fisher, Jensen & Roll, 1969). However, the violation of statistical assumptions when using event study received criticisms. In particular, past studies that failed to accommodate the stylized features of high frequency financial data would lead to misleading results (Yoo, Lee & Heo, 2013). To cater for the stylized features of financial data such as volatility clustering, leverage effect and leptokurtosis, this study will use event study methodology coupled with the Generalized Autoregressive Conditional Heteroscedasticity (1, 1) (GARCH (1, 1)) model to evaluate the impact of M&A with respect to the stock performance of the telecommunication companies in Malaysia.

The objective of this study is to evaluate whether the announcement of M&A of telecommunication companies in Malaysia will create wealth opportunity to the shareholders through abnormal return by adopting event study methodology coupled with GARCH (1, 1) model.

LITERATURE REVIEW

There are two main approaches in addressing performance of M&A after examining past literatures which are stock market method and accounting method (Tuch & O'Sullivan, 2007). However, both methods yielded inconsistent results when examine the post M&A effects. Stock market method employed event study to forecast the post M&A shares values which assumed stock market is efficient where in the sense that stock market prices adjust in response to any available information in the market. Some of the empirical studies reported positive abnormal returns (Franks & Harris, 1989; Yeh & Hoshino, 2000; Sudarsanam & Mahate, 2003; Ben-Amar & Andre, 2006). Whereas some empirical studies yielded negative or insignificant returns after M&A (Walker, 2000; Campa & Hernando, 2003; Gupta & Misra, 2004; Akben-Selcuk & Altiok-Yilmaz, 2011).

As for the accounting method, there were different results obtained due to the used of accounting ratios. Studies which showed improvement of performance by testing the ratios were Healy, Palepu and Ruback (1992) and Saboo and Gopi (2009). In the study by Ravenscraft and Scherer (1989) and also Cabanda and Pajara-Pascual (2007), there were decreases in the profitability, return on equity and debt to equity ratio.

Nevertheless, according to Ooghe, Laere and Langhe (2006), M&A studies which used accounting method in measuring the effect has received a lot of criticisms as the annual financial statements are backward-looking, intangible assets' value were ignored and insufficient comparability. Besides, there seems to be inconsistencies of accounting practices between different companies which

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

480

make it incomparable even though the financial statements are audited (Bruner, 2002). In the study of Powell and Stark (2005), they have revealed that the combined performance measure for both the bidder and target companies are difficult to ascertain the validity. This is due to the acquired companies might not exist after the acquisition or still remain as the subsidiary of the acquirer. However, the accounting practices and financial reporting of the combined company, holding or acquirer are different.

In this study, stock market method using event study methodology will be used to find out the wealth creating opportunity of the companies that go through M&A since accounting method is hardly able to achieve convincing and consistent results in examining M&A effects. The event study tries to identify the impact of an event announced or undertaken by company by examining the changes of share price before and after the event. If the stock market could process the information arisen from the event in an unbiased manner, the impact of the event could be seen from the share price changes. This method was first published by Dolley (1933) in examining the stock splits effect of corporations.

According to Cording, Christmann and Bourgeois (2002), there are several attractive features on this event study methodology. First, the data used is publicly available which allows large data samples. Second, this method relies on efficient market hypothesis (EMH). Third, abnormal returns are to be calculated, therefore, the data permits broad cross-industry companies to be studied where data is not subjected to industry sensitivity. Past studies on stock price performance using event study methodology allowed the analysis of both short-run and long-run event windows of acquirer performance where short run is up to 3 months and long run is up to 5 years after M&A deals. Besides, short run event windows aims on how fast the information gets into prices whereas long run event windows aims to identify efficiency of an event or to find out different expected returns (Tuch & O'Sullivan, 2007).

When using event study methodology, there is an assumption of market efficiency, in which the share prices react in an unbiased manner and timely to new information and the gains reflect the value of the firm in coming periods (Fama 1970; Tuch & O' Sullivan, 2007). According to Tuch and O' Sullivan (2007), this assumption allowed researchers to measure the stock price reaction of acquirer during a takeover and of course subject to the controls of other factors. Whether the information announced and communicated to the market includes any surprising and useful content which will lead to an abnormal return is another assumption. This indicates that the M&A event has an impact on the listed companies' stock price when there is any abnormal return at the time of the event and therefore the abnormal return signifies that the event contains information (Akben-Selcuk & Altiok-Yilmaz, 2011).

Review of the stream of literatures had found mixed results, it would be interesting to test on telecommunication sector in Malaysia especially this study expand the literature by coupling with GARCH (1, 1) model, thus, leads to the hypotheses as below:

H_0: There is no abnormal return after the announcement of M&A by telecommunication firms.
H_1: There is abnormal return after the announcement of M&A by telecommunication firms.

This study adds value by giving the stock market investors an overview on the wealth creation opportunity during M&A events by telecommunication companies in Malaysia. Should investors invest or not to invest around the M&A event?

METHODOLOGY

The objective of this study is to examine the impact of M&A on non-financial company's firm market value. The event study is used in order to analyze the financial effects of the M&A events. In the existing literature, event study methodology is one of the commonly used methodologies to examine an economic event on the value affirm. However, this methodology has been criticized for imposing restrictive statistical assumptions on the behaviour of stocks indices. Therefore, this study goes beyond the traditional tool by relaxing some of the standard statistical assumptions that often violated in practice using GARCH (1, 1) model.

The classical market model which was designed by Fama et al. (1969) was adopted in this study. Stock returns of a company will be modeled using the following equation:

r_{it} $=$ $\alpha_i + \beta_i r_{mt} + e_{it}$

Where:

r_{it} $=$ the return of stock on firm i in day t
r_{mt} $=$ the return of the market index in day t
α_i $=$ the intercept term (estimated from the market model)
β_i $=$ a parameter that measures the sensitivity of r_{it} to the market index (estimated from the market model)
e_{it} $=$ a random variable that by construction, has an expected value of zero. It is assumed to be uncorrelated with r_{it}

The return of stock on firm i in day t, r_{it}, will be calculated using the following equation:

r_{it} $=$ $(P_{it} - P_{it-1}) / P_{it-1}$

Where:

P_{it} $=$ the price of stock i at end of day t
P_{it-1} $=$ the price of stock i at the end of day t-1
r_{it} $=$ the return of stock on day t

The return of the market index in day t, r_{mt}, will be calculated using the following equation:

r_{mt} $=$ $(CI_{it} - CI_{it-1}) / CI_{it-1}$

Where:

CI_{it} $=$ the composite index at end of day t
CI_{it-1} $=$ the composite index at end of day t-1
r_{mt} $=$ the return of market on day t

Once the model is estimated, the parameters α_i and β_i would be used to generate expected returns of a company during a particular event. The model is as follows:

$E(r_{it})$ $=$ $\alpha_i + \beta_i r_{mt}$

Where

$E(r_{it})$ $=$ the expected return of firm i during an event

Once $E(r_{it})$ is obtained, it will be compared to actual returns of firm i during an event to find out the abnormal return (AR):

AR_{it} $=$ $r_{it} - E(r_{it})$

Where:

AR_{it} $=$ abnormal return of firm i of day t

If AR_{it} is zero, the firm does not have abnormal return; if AR_{it} is not zero, abnormal return exists.

Once the abnormal returns for individual firms are calculated, an average will be calculated from all the firms. The calculation is denoted as follows:

AAR_{it} $=$ $\sum AR_{it}/N$

Where:

N $=$ number of firms in the sample
AAR_{it} $=$ average abnormal return at time t

By adding average abnormal return from different time periods, cumulative average abnormal return (CAAR) is obtained. The equation is as follows:

$CAAR$ $=$ $\sum AAR_{it}$

Where:

$CAAR$ $=$ the cumulative average abnormal return

After calculations of CAAR, it can be used to determine if the event has any impact on the stock returns. The null hypothesis would be the event has no impact on the stock returns, where, CAAR = 0. It is reasonable to make the assumptions that the daily returns are identical and are normally distributed,

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

482

thus, a simple T-test is appropriate. The CAAR can be positive, 0 or negative, which indicated that there will have two critical values and in two directions.

Sample of this study is based on M&A which were announced by Malaysian telecommunication public listed companies which listed on Bursa Malaysia during the period January 2011 to December 2013. To collect the samples, Thomson One Investment Banker Database has been used. There were 7 samples collected which made an announcement on M&A during the stipulated period. Event window in this study will be a short run analysis which is 30 days from -15 day to +15 day meaning 15 days before 0 (announcement of M&A) and 15 days after 0. The reason of choosing an 31-day window is to capture any information that may be leaked before the announcement of M&A was made and the reaction of the short term stock price after the particular announcement (Akben-Selcuk & Altiok-Yilmaz, 2011).

Most of the event studies thus far employ the conventional market model that assumes a constant variance in both the pre & post event windows. However, since the seminal work of Engle (1982) and Bollerslev (1986), the autoregressive conditional heteroscedasticity (ARCH) effect has been shown to be significant in many financial series (Corhay & Rad, 1996; Mckenzie & Mitchell, 2002; Tully & Lucey, 2007; Yoo, Lee & Heo, 2013). In financial time series, there are stylized features where the linear models cannot explain which are leptokurtosis, volatility clustering and asymmetric effect. Leptokurtosis is commonly observed in financial time series where volatility in stocks usually find that variances of stocks to be leptokurtic (Brooks, 2008). The distribution of the data is peaked in the centre and tailed thicker than the normal distribution with the same mean and variance. Next, volatility clustering is the main stylized effect that rendered a traditional OLS model useless. The presence of this effect is unique to the squared returns of a particular stock's price. When there is absolute change in the prices, there will be volatility clustering and this could be heteroscedastic in the variances (Tsay, 2005; McAleer, 2005). Asymmetric effect is also known as leverage effect which is one of the stylized features that cannot be captured in a traditional market model. According to Black (1976), the current return and future volatility have negative correlation where bad news will cause negative fluctuations compare to good news. The negative shocks gave higher volatility than positive shocks with the same magnitude. The negative value if place in a linear model will not be explained which caused misleading results.

This study goes beyond the conventional market model that assume constant variance by accommodate the stylized features of the stock return using the GARCH (1, 1) model. Engle (1982) has first introduced ARCH model to accommodate with the stylized effects which specifies variance of error term in a regression equation as a conditional on squared past errors.

RESULTS AND DISCUSSIONS

Average abnormal returns (AAR) on the announcement day and cumulative average abnormal returns (CAAR) have been analyzed for the samples.

Table 1 AAR and CAAR to shareholders of Telecommunication Stock, 2011 – 2013

Day	Average Abnormal Return	T-Stats	Cumulative Average Abnormal Return	T-Stats
15	0.118	0.162	-6.461	-0.678
14	0.059	0.084	-6.579	-0.678
13	-0.372	-0.504	-6.638	-0.726
12	0.228	0.246	-6.266	-0.688
11	-0.184	-0.156	-6.494	-0.724
10	-0.199	-0.417	-6.310	-0.717
9	-0.571	-0.880	-6.112	-0.706
8	-0.459	-0.501	-5.540	-0.668
7	0.112	0.106	-5.081	-0.668
6	-1.019	-0.558	-5.193	-0.737
5	-0.404	-0.561	-4.174	-0.741
4	-0.245	-0.191	-3.770	-0.730

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

483

3	-0.419	-0.374	-3.525	-0.718
2	0.863	0.422	-3.106	-0.593
1	0.687	0.435	-3.969	-0.655
0	**-0.070**	**-0.065**	**-4.656**	**-0.634**
-1	0.533	0.654	-4.586	-0.589
-2	0.266	0.191	-5.119	-0.608
-3	-0.366	-0.499	-5.385	-0.565
-4	-0.039	-0.057	-5.019	-0.541
-5	-0.457	-0.489	-4.980	-0.564
-6	-0.431	-0.537	-4.523	-0.567
-7	-0.415	-0.329	-4.092	-0.544
-8	-0.615	-0.619	-3.677	-0.572
-9	-0.208	-0.606	-3.063	-0.505
-10	-0.436	-0.645	-2.855	-0.460
-11	-0.647	-0.688	-2.419	-0.434
-12	-0.276	-0.226	-1.773	-0.345
-13	0.003	0.005	-1.497	-0.357
-14	-0.088	-0.075	-1.500	-0.398
-15	0.274	0.242	-1.412	-0.522

Table 1 shows the results of stock price abnormal returns and their t-statistic at the examination window (-15 day to +15 day) for the acquiring firms. It is observed that almost all the daily abnormal returns are negative from day -15 to day +15 around the announcement date (day 0) however not statistically significant. It is observed that the abnormal return on 2 days before and 2 days after the announcement day are positive but not significant. ($AAR_1 = 0.687$, $t_1 = 0.435$; $AAR_2 = 0.863$, $t_2 = 0.863$; $AAR_{-1} = 0.533$, $t_{-1} = 0.654$, $AAR_{-2} = 0.266$, $t_{-2} = 0.191$). These scenarios are in accordance to past literature on the wealth effects of M&A announcement to the shareholders. It can be said that, there is a chance of getting positive abnormal return in a very short period of time which is 2 days before due to leakage of the news and 2 days after the announcement.

On the announcement day itself, results showed $AAR_0 = -0.070$, $t_0 = -0.065$, which is an insignificant abnormal return. However, according to the t-statistics, it is insignificant positive abnormal return. For each of 31 days in the experimental period, it indicates that there is no consistent pattern of abnormal returns for the firms engaged in M&A. As for the CAAR, it can be seen that there are no positive CAAR before and after the announcement of M&A, however, statistically insignificant. The null hypothesis cannot be rejected as the positive AAR is not significant. However, these results cannot make any inferences since the sample of telecommunications sector is so small. It would be interesting if the study include more samples and data to investigate the market reaction towards the announcement made.

CONCLUSION

This study examines the short-run share price performance of 7 Malaysian Telecommunication companies who made an announcement on M&A during the period 2011 – 2013. The study finds evidence that investors of the bidder firms of M&A experiences a statistically insignificant positive abnormal return 2 days before and 2 days after the announcement. The findings indicate that M&A might have the chance of creating a wealth opportunity for shareholders around the announcement day. These findings are consistent with the results of the past studies (Campa & Hernando, 2004; Gupta & Misra, 2004; Ben-Amar & Andre, 2006). The positive abnormal returns might be more statistically significant if more samples are included. Positive abnormal returns are consistent with efficient market hypothesis where any news released in the market; the investors absorbed the information and react by buying or selling shares immediately. M&A might give positive expectations towards the investors in the Malaysia stock market. It would expect that when the firms merge or acquire, the firms can be better in terms of economies of scales and achieve better potential future profits. There is actually wealth creating opportunity around M&A announcement.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

484

These findings have important implications for Malaysian firms' management level to view the increase in stock price around the announcement dates as signal for a positive stockholders' respond. It draws the attention to the managers that M&A appear to be a good indicator of future success of a company. On methodology front, this study used GARCH (1, 1) model to predict the expected return has tried to improve the robustness of the abnormal returns calculations by capturing the stylized and leverage effect of high frequency share price data. This study did reports market positive respond towards M&A announcement, however insignificant, there is a scope for future research work. If is suggest that future research could include more samples and identify longer event windows which is more than 15 days before and after the announcement. Perhaps, long term effects of M&A might give a different perspective of the market reaction which will make valuables contribution to both scholars and investors as well.

REFERENCES

Akben-Selcuk, E., & Altiok-Yilmaz, A. (2011). The impact of mergers and acquisitions on acquirer performance: Evidence from Turkey. *Business and Economics Journal*, 2011, 1-8.

Ben-Amar, W., & Andre, P. (2006). Separation of ownership from control and acquiring firm performance: The case of familly ownership in Canada. *Journal of Business Finance and Accounting, 33,* 517-543.

Black, F. (1976). Studies of stock market volatility changes, Proceeding of the American Statistical Association, Business and Economic Statistics Section.

Bollerslev, T. (1986). Generalized autoregressive conditional heteroskedasticity. *Journal of Econometrics, 31*(3), 307-327.

Brooks, C. (2008). *Introductory Econometrics for Finance.* (2nd ed.). New York: Cambridge University Press.

Bruner, R. F. (2002). Does M&A pay? A survey of evidence for the decision-maker. *Journal of applied Finance, 12*, 48–68.

Cabanda, E., & Pajara-Pascual, M. (2007). Merger in the Philippines: Evidence in the corporate performance of William, Gothong, and Aboitiz (WG&A) Shipping Companies. *Journal of Business Case Studies, 3*(4), 87-100.

Campa, J. M., & Hernando, I. (2004). Shareholder value creation in Eurepoean M&A. *European Financial Management, 10,* 47-81.

Cording, M., Christmann, P., & Bourgeois, III L. J. (2002). A focus on resources in M&A success: A literature review and research agenda to resolve two paradoxes. *Academy of Management,* 1-40.

Corhay, A., & Rad, A.T. (1996). Conditional heteroskedasticity adjusted market model and an event study. *The Quarterly Review of Economics and Finance, 36*(4), 529-538.

Dolley, J. C. (1933). Characteristics and procedure of common stock split-ups. *Harvard Business Review, 11,* 316-326.

Engle, R.F. (1982). Autoregressive conditional heteroskedasticity with estimates of the variance of United Kingdom inflation. *Econometrica, Journal of the Econometric Society, 50*(4), 987-1007.

Fama, E.F., Fisher, L., Jensen, M.C., & Roll, R. (1969). The adjustment of stock prices to new information. *International Economic Review, 10*(1), 1-21.

Fama, E.F. (1970). Efficient capital markets: a review of theory and empirical work. *Journal of Finance*, 25, 383–417.

Franks, J., & Harris, R. S. (1989). Shareholder wealth effects of corporate takeovers: The U. K. experience 1955-1985. *Journal of Economics, 23*, 225-249.

Gupta, A., & Misra, L. (2004). Deal size, premium padi and the gains in financial mergers: The impact of mangerial motivation. *Working Paper,* Bentley College of Business.

Healy, P. M., Palepu, K. G., & Ruback, R. (1992). Does corporate performance improve after mergers? *Journal of Financial Economic Perspective, 2,* 49-68.

Ismail, M., & Rahim, H. (2009). Impact of merger on efficiency and productivity in Malaysian commercial banks. *International Journal of Economics and Finance*, 1(2), 225-231.

Jensen, M. C., & Ruback, R. S. (1983). The market for corporate Control: The scientific   evidence. *Journal of Finance, 11*(5), 5–50.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

485

Loong, R. (2008). *Getting the Deal Through Mergers and Acquisitions.* Retrieved from http://www.raslanloong.com/files%5COther%20Publications%5CMAGetting%20the%20Deal%2Through.pdf

Mantravadi, P & Reddy, A.V. (2008). Post-merger performance of acquiring firms from different industries in India. *International Research Journal of Finance and Economics,* (22), 192-204.

McAleer, M. (2005). Automated inference and learning in modeling financial volatility. *Econometrics Theory*, 21, 232–261.

Mckenzie, M., &Mitchell, H. (2002). Generalized asymmetric power ARCH modeling of exchange rate volatility. *Applied Financial Economics, 12*(8), 555-564.

Marimuthu, M. (2008). Mergers and acquisitions: Some empirical evidence on performance, financial characteristics and firm sustainability. *International Journal of Business and Management*, *3*(10), 8-15.

Ooghe, H., Laere, E. V., & Langhe, T. D. (2006). Are acquisitions worthwhile? An empirical study of the post-acquisition performance of privately held Belgian companies. *Small Business Economics, 27,* 223-243.

Pazarskis, M., Vogiatzogloy, M., Christodoulou, P., & Drogalas, G. (2006). Exploring the improvement of corporate performance after mergers – the case of Greece. *International Research Journal of Finance and Economics*, 6, 184-192.

Powell, R., & Stark, A.W. (2005). Does operating performance increase post-takeover for UK takeovers? A comparison of performance measures and benchmarks. *Journal of Corporate Finance*, 11, 293–317.

Radam, A., Baharom, A. H., Dayang-Affizzah A. M., & Ismail, F. (2009). Effect of mergers on efficiency and productivity: Some evidence for banks in Malaysia. *The Icfai University Journal of Bank Management*, *8*(1), 31-46.

Ravenscarft, D. J., & Scherer, F. M. (1989). The profitability of mergers. *International Journal of Industrial Organizations*, 101-116.

Saboo, S., & Gopi, S. (2009). Comparison of post-merger performance of acquiring firms (India) involved in domestic and cross-border acquisitions. *Munich Personal RePEc Archive.* Retrieved from http://mpra.ub.uni-muenchen.de/19274/.

Securities Industry Development Corporation Malaysian Investor. (2013). Retrieved from http://www.min.com.my/articles/investment/mergers-acquisitions

Sudarsanam, S., & Mahate, A. A. (2003) Glamour acquirers, method of payment and post-acquisition performance: The UK evidence, *Journal of Business Finance and Accounting, 30,* 299-341.

Sufian, F. (2004). The efficiency effects of bank mergers and acquisitions in a developing economy:
Evidence from Malaysia. *International Journal of Applied Econometrics and Quantitative Studies*, 1-4, 53-74.

Sufian, F., Muhamad, J., Bany-Ariffin, A. N., Yahya, M. H., & Kamarudin, F. (2012). Assesing the effect of mergers and acquisitions on revenue efficiency: Evidence from Malaysian banking sector. *Vision: The Journal of Business Perspective, 16*(1), 1-11.

Tanuvats. (2008). Merger and Acquisition. Retrieved from http://www.oppapers.com/subjects/mergers-acquisitions-page1.html

Tsay, R.S. (2005). *Analysis of financial time series* (2nd ed.). New York: Wiley.

Tuch, C., & O' Sullivan, N. (2007). The impact of acquisitions on firm performance: A review of the evidence. *International Journal of Management Reviews*, *9*(2), 141-170.

Tully, E., & Lucey, B.M. (2007). A power GARCH examination of the gold market. *Research in International Business and Finance, 21*(2), 316-325.

Usman, A., Mehboob, & Ullah, A. (2010). Relative operating performance of merged firms in Pakistan. *European Journal of Economics, Finance and Administrative Sciences*, 20, 44-48.

Walker, M. (2000). Corporate takeovers, strategic objectives and acquiring firm shareholder wealth. *Financial Management, 20,* 53-66.

Yeh, T. S., & Hoshino, Y. (2000). The effects of merger and acquisitions on Taiwanese corporations. *Review of Pacific Basin Financial Markets and Policies, 3*(2), 183-199.

Yoo, K., Lee, Y., & Heo, E. (2013). Economic effects by merger and acquisition types in the renewable energy sector: An event study approach. *Review and Sustainable Energy Reviews, 26,* 694-701.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

486

Effect of Malaysian General Election towards Stock Market

Yeoh Koay Kheng & Kong Yin Mei

Department of Finance, Faculty of Business and Finance, Universiti Tunku Abdul Rahman,

31900 Kampar, Perak, Malaysia.

yeohkk@utar.edu.my & kongym@utar.edu.my

Abstract

This study examines the Malaysian general election which would affect the movement of stock market in KLCI as well as the investors' reaction upon the general election. Besides KLCI, this research also employed the consumer product index, property index, construction index, finance index, plantation index, trading & services index, industrial product index, industrial index, mining index & technology index respectively. The 2008 and 2013 general election has caused changes in the political structure of Malaysia where the incumbent government failed to acquire two-third majority in parliament further to losing their once-absolute control over legislative power. Event study methodology with ordinary least square regression (OLS) been used to capture the impact of 12th and 13th Malaysian General Election on its stock market. Cumulative Abnormal Return (CAR) been used to determine the Malaysia's investors reaction towards the consistency to meet Uncertain Information Hypothesis (UIH) theory. The findings revealed that reactions of investors in 2008 general election consistent with UIH, however was shown otherwise inconsistent for the 2013 general election.

Keywords: General Election, Stock Market, Malaysia Politic

Introduction

General election is often the variable that researchers had been trying their best to figure out its correlation with the financial markets. It is a notion that this kind of country-related affair should be clean and transparent, yet the Malaysian General Election seems to be otherwise. Cloaked in mystery, it is even more surprising when there are only few researchers who have researched on the subject matter before *Ali, Nassir, Hassan & Abidin, 2010). Therefore, it is the main motivation of this research project to shed some light on the impact of Malaysian General Election on stock market and the reaction of stock market upon the arrival of Malaysia General Election.

Fama (1965) stated that stock prices are often associated with future economic activities. The confidence in a president can clearly reflect the underlying economic conditions that are important in establishing stock prices (Schwerts, 1990). Most studies have discovered how political news and policies affect macroeconomic outcomes such as growth rates (Aisen & Veiga, 2010), inflation rates (Aisen & Veiga, 2005), interest rates (Contractor, 2014) and exchange rates (Lesson 6 – Key Factors Affecting Exchange Rate, n.d.) in which impacts financial markets. Jensen and Schmith (2005) found that stock market response is based on how politics affect the stock markets. Different policies will bring different response from the stock markets. For example, if the elected president offers market-unfriendly policies, it will cause the stock market to underperform.

Every 5 years, Malaysia elects its government, and because the elected government will influence numerous aspects of a country, the effect of these elections events becomes staggering which includes affecting Malaysia stock market (KLCI). For the past decades, peoples from all walks of life had never

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

487

silent themselves from observing the cyclical nature of stock market and had attempted to correlate these cycles with everything by referring to simple econometric models to highly complicated econometric models. Stock market has been one of the most influential variables in the government's index of leading economic indicators (Wong & McAleer, 2007)

When Malaysia's GE-11 took place, the market suffer a plunge as of the announcement of dissolution of the parliament, however, it managed to pick up its pace at the time when the incumbent Barisan Nasional (BN) remains the winning party and continued to rise gradually (Lee, 2004; Ngu 2004; Yusof, 2004). After GE-12's results were released in 2008, the stock market faced a huge slump mainly due to the shocking performance from the opposition parties (Moten, 2009). After the announcement of the GE-13 results, Malaysia's financial market experienced a tremendous hike rather than an expected dive (Ng & Gangopadhyay, 2013; Chandran, 2013).

In Malaysia, experts foreseen in GE-13 that there will be a significant impact of it towards the stock market as stated in Ng (2013) and Tee (2013). Some stated that the general election is a key market risk for Malaysians (Singh, 2012). Choong (2013) indicated that the prolonged delay of election and thoughts on the instable political environment have resulted in a major overhang in Malaysia's stock market. Thus, investors shall be in defense mode by playing it slow and steady till the end of GE in which their uncertainties will end while some researchers predicted that the GE-13 may boost Malaysia's turtle pace stock market in the beginning of 2013 (Ismail, 2012). However, some researchers has concluded that there is lack of evidence that the stock market have any overreaction towards the general elections up to the 11th Malaysian General Election (Ali, Nassir, Hassan & Abidin, 2010).

This study set up a theoretical framework to examine the impact of Malaysian General Election on stock market and the reaction of stock market upon the arrival of Malaysian General Election via observing the trend of stock index Bursa Malaysia KLCI and all the industries indices in Malaysia and critically review on the differences. The industries indices such as construction, consumer goods, finance, industrial, industrial products, mining, plantation, property, technology as well as trading and service.

General election is one of the most prominent political risks in a business. Most of the researches done so far are done to establish the relationship between general election and volatility of stock or return of stock as a whole in the composite index in respective countries. However, less or fewer has taken a step further to shed light on the impact of general election on each specific industry in the economy of the country. Generally, different industry has different ration of contribution to the economy of a country and therefore, the impact of general election on the industry index may vary among each other. The knowledge gap in this area can be bridged with a thorough investigation.

By allowing the knowledge gap to be filled, this paper is able to provide an insight for local and foreign investor on how general election affects the Malaysia stock market performance as a whole and in specific industries. This will then help to enhance the portfolio management especially for local retail investors so that they can consider reallocating their fund across other unaffected industries. This can also aid in providing better decision-making to achieve optimal risk reduction at the time around the event takes place.

Literature Review

History / Political Climate in Malaysia
The first General Elections (GE) held in Malaysia after independence was in 1959 and since then, General Elections are held every five years for a fully-elected Federal Dewan Rakyat (House of Representatives) (Rudner, 1970). Up to date, Malaysia had held 13 GEs and BN has consistently win Parliamentary majorities to form the Government. However, in GE-4 in 1969, BN had lost its dominant power by not winning at least two-third of the parliament seats. History repeated again in the most recent GE-12 and GE-13. The oppositions shake the incumbent party through cyberspace and using current trends intelligently, like blogs and short messaging system (SMS) to reach out to voters and to spread

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

488

their manifestos (Wagstaff, 2013; Stodden, 2008). Several mainstream newspapers called this situation as 'Political Tsunami' (Tay, 2008), others refer to it as 'Political Volcano' (Lim, K. H. & Har W. M., 2008).

Reviews on the Relationships between Elections and Stock Market

Due to the great importance of general election effect towards the stock market, there are several authors that have devoted their time in this area:

According to Chuang and Huang (2009), stock markets are often the benchmarks to measure the economic performance of a country. Therefore, researchers may often linked elections and stock markets together as they are keen to find out whether the incumbent party has played their role in steering the nation's economy. This is stated by a few researchers, Kim and Mei (2001) and Ferri (2008) where unexpected election results or changes in government structures are often negatively linked to the market performance of the nation. The relationship between financial markets and elections has been well documented in several past studies such as Hibbs (1977), Alesina, Roubin and Cohen (1997) and Ferri (2008). According to Pantzalis, Stangeland and Turtle (2000) the authors had examined the behaviour of market indices around the election period and found abnormal returns during the period. They concluded that the positive abnormal returns reflects a country's degree of political freedom, economic freedom, press freedom, function of election timing as well as the success of incumbent party to reelected.

Li and Born (2006) examine the presidential election uncertainty and stock returns in the United States and has found that there is a substantial evidence of the impact of political outcomes on business cycle and stock markets. Herbst and Slinkman (1984), Allvine and O'Niell (1980), Wong and McAleer (2007) and, Santa-Clara and Valkanov (2008) investigates whether Republicans or Democrats are better for stock market by looking at presidential election cycles and the stock market. Their results are in line with the study of Huang (1985) had also observe the stock returns related to the 4-year U.S Presidential Cycle and found evidence to support presidential election cycle theory. Their results shows that stock returns are significantly higher in year 3 and 4 of the cycles compares to year 1 and 2 which is consistent with the theory of presidential election cycle. On top of that, studies by Forester and Schmitz (1997) and Nordhaus (1975) have shown that stock returns exhibit a presidential cycle during the four years of a president's term regardless of whether they are a Democratic or Republican.

Until now, most researchers have proven the significant effect of elections and political-linked events on the performance of stock market. However, there are researchers that yield different results. Dopke and Pierdzioch (2004) examine the interaction between stock market movement and politics in Germany and could not find any evidence that the market returns are higher during liberal than conservative governments. On the other hand, the authors could not find any evidence for an election cycle for German stock market returns. Jones and Bonning (2009), in their study to determine the relationship of U.S presidential elections and the monthly stock market return, the authors found no evidence to support the interaction between the elections and monthly stock market return. Their results showed that there are no significant differences in the monthly stock market return regardless of the outcomes of the presidential election in United States.

Review on Theory and Empirical Work of Efficient Market Hypothesis (EMH), Overreaction Hypothesis (OH) and Uncertain Information Hypothesis (UIH)

Efficient Market Hypothesis (EMH) is founded by Professor Eugene Fama at the University of Chicago Booth School Of Business in 1970 and has been a subject to great number of studies ever since. Fama (1970) defines an efficient market as a market that fully reflects all the available information. In another words, each and every stock price will immediately adjusted itself to reflect the available information, which includes all public and private information, as illustrated in Figure 2.7.1. In a typical competitive equity market, investors react quickly to the announcement of new information (Fama, 1970).

Though EMH has been one of the most influential empirical work for financial researchers to investigate on the behaviour of stock price, there has been empirical studies that indicate that stock price do not always reflect all the available information (Yalcin, 2010). There are many observed market movements that are not explained by the arguments of the efficient market hypothesis. Such market movements that are inconsistent with the efficient market hypothesis are called anomalies (Yalcin, 2010). This is because

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

489

the stock prices sometimes can be predicted based on the historical prices overreaction or under reaction of the investors and also uncertain information. Undeniable, some market participants are less rational. Therefore, pricing irregularities and predictable patterns in stock returns can appear over time and even persist for short periods. Grossman and Stiglitz (1980) stressed that market is not perfectly efficient because we cannot eliminate the possibility of no incentive for professionals to uncover the information that gets so quickly reacted in market prices.

This ambiguity has led to the emergence of new study fields in behavioral finance such as Overreaction Hypothesis (OH) by De Bondt and Thaler (1985, 1987) and Uncertain Information Hypothesis (UIH) by Brown, Harlow and Tinic (1988, 1993) and Mehdian, Perry and Nas (2008).

Overreaction Hypothesis (OH) stated that if stock overreaction exist, then it is possible to predict future prices based on past price information to earn excess profit (Ali, Nassir, Hassan & Abidin, 2010). Overreaction is a notion which suggests that, stock price also has a tendency to overreact to extremely good and bad news. According to Bloomfield, Libby and Elson (2000), OH argues that investors tend to overreact to information which causes the stock prices to move upward too far in reaction to favorable news and move downwards too far in reaction to unfavorable news, or tendency to under react in other cases where stock price does not move far enough in reaction to favorable news and not low enough in reaction to unfavorable news. Howe (1986) in his study indicates that investors tend to overreact to dramatic and unanticipated news in most cases.

Apart from the overreaction and underreaction of market participants, uncertain information in the stock market may also affect the movement of future stock price. This scenario is known as Uncertain Information Hypothesis (UIH). In year 1988, Brown, Harlow and Tinic (1988; 1993) developed an expanded version of EMH, the theory of "Uncertain Information Hypothesis" (UIH) pointing that the release of unexpected information will lead to increase in uncertainty and risk in financial markets which will cause investors to be unable to accurately react to unexpected news and therefore, setting their initial security prices below fundamental value.
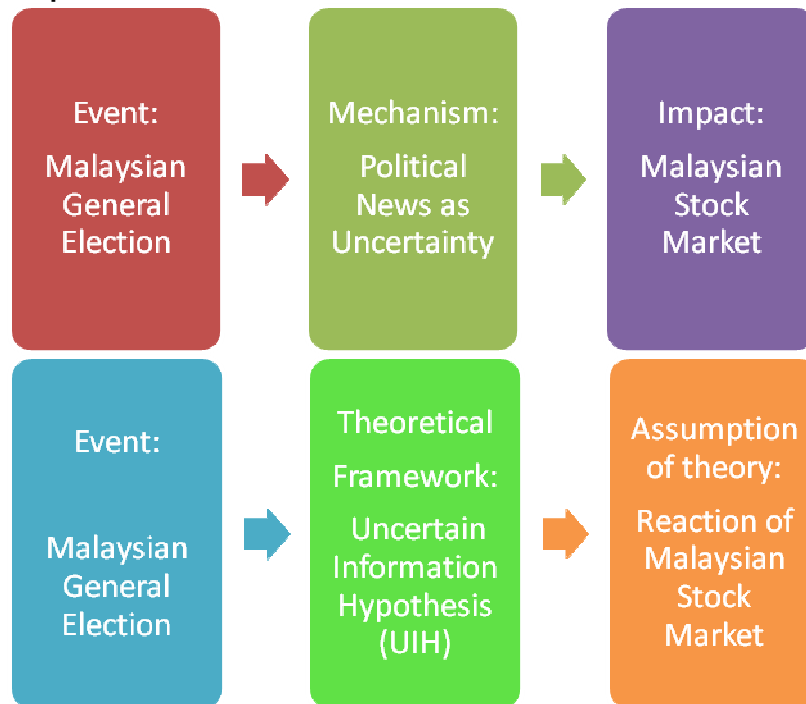
Once the complete information is revealed, security prices will recover back the underset portion and therefore positive response will follow regardless of the nature of the event. They tested the hypothesis through firm-specific events and market events. Their results show positive price reaction to both favourable and unfavourable events in the short run.

Event Study
According to Wong (n. d.), the definition of event study is 'a study of the changes in stock price beyond expectation over a period of time (event window). The event study methodology was first introduced by Fama, Fisher, Jensen and Roll in 1969. They used the event study methodology mostly to test security price behaviour in the events of accounting rule changes, earning announcements, changes in severity of regulation and money supply announcement. Binder (1998) mentioned that the benefit of this statistical tool comes from its versatility. In other words, event study is designed to examine the effect of any event ranging from firm-specific events to economic wide events on a specific dependent variable.

In the past many researchers have used this event study methodology to test the stock market reaction towards the occurrence of general election. Ayuk (2010) has used event study to investigate the presidential elections effect on stock market in U.S. whereas Liu (2007) has used the same method to investigate the presidential elections effect on stock market of various countries in Asia like Singapore, Vietnam and Indonesia. Apart from that, while most of the researchers like Binder (1998) and Chen, Ariff, Hassan and Mohamed (2013) uses event study to investigate the impact of general election on respective individual securities, the very same method can also be used to test on equity indices. Liu (2007) and Ayuk (2010) have examined the impact of general election on value-weighted equity index of a certain country.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

490

Proposed Theoretical Framework

Hypothesis Development
According to Salamudin, Ariff and Nassir (1999), Akinyote (2008) and Baharuddin, Abdullahi and Teoh (2010) Malaysian stock market are described as semi-strong efficient market. This indicates that securities prices have already reflected all publicly available information and therefore investors in Malaysia cannot earn abnormal return through publicly available information. In other words, investors in Malaysia can only earn abnormal returns at the possession of internal or private information.

The hypothesis developed is based on Ayuk (2010) where the author investigated the effect of U.S presidential election on Standard & Poor 500 (S&P500) and NASDAQ from year 1988 to year 2008. As this research paper aims at defining the effect of Malaysian General Election on KLCI and sectoral indices, therefore the similar concept of hypothesis is developed.

Impact of Malaysian General Election on KLCI and sectoral indices
H0 = 12th and 13th Malaysian General Election do not affect the average daily stock returns of KLCI and sectoral indices during 5 trading days prior and subsequent to the actual day of announcement of general election's results.
H1 = 12th and 13th Malaysian General Election do affect the average daily stock returns of KLCI and sectoral indices during 5 trading days prior and subsequent to the actual day of announcement of general election's results.

Consistency of UIH on the reaction of stock market following unexpected information
H0 = The reaction of stock market (KLIC and 10 sectoral indices) upon the arrival of 12th and 13th Malaysian General Election are consistent with the theory of Uncertain Information Hypothesis (UIH)
H1 = The reaction of stock market (KLIC and 10 sectoral indices) upon the arrival of 12th and 13th Malaysian General Election are not consistent with the theory of Uncertain Information Hypothesis (UIH)

Methodolgy

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

491

Event study adopted in this research is ordinary least square regression (OLS) to capture the impact of 12th and 13th Malaysian General Election on its stock market. Secondary data was used and the targeted population is KLCI and all the sectoral indices of Malaysian stock market. This methodology is performed to investigate if 12th and 13th Malaysian General Election affects Malaysian stock market by observing on the statistically significance of dummy coefficients as well as the Cumulative Abnormal Return (CAR). CAR is used to determine the Malaysia's investors reaction towards the consistency to meet Uncertain Information Hypothesis (UIH) theory.

Event Study on the Impact of 12th and 13th Malaysian General Elections on the Stock Market
In order to investigate the effects on stock market before and after the general election, the event window is expanded in such a way 5 days immediately before the polling day (t= -5) and 5 days immediately after the polling day (t= +5). The pre-event window will be a period of 6 months before event window (t= {- 6 months,-5 days}). On the other hand, the post-event window will be a period of 6 months immediately after the event window (t= {+6 months, +5 days}). The equation is shown below :

$$R_{it} = \alpha + \beta D_{it} + \mathcal{E}$$

where R_t is the return of the index on Day t and $\mathcal{E}_t$ is the error term for the model. D_{it} is the dummy variable that takes on the presence of election and non-election period. The Dummy Variable takes on the value of 1 for election period and 0 for non-election period. The purpose of having Dummy Variable is to determine whether the changes in the price index are related to the general election.

Event Study on the Consistency of UIH on the Reaction of Stock Market upon the Arrival of 12th and 13th Malaysian General Elections.
To investigate whether the pattern of stock return for both KLCI and sectoral indices are consistent with UIH theory, the event window is expanded 30 days immediately after the polling day (t= +30). The pre-event window will be a period of 6 months before event window (t= {- 6 months, 0 days}) while the post-event window will be a period of 5 months immediately after the event window (t= {+5 months, 30 days}), a timeframe of 1 year.

Ordinary Least Square
The model adopted is an Ordinary Least Square (OLS). The significant level adopted are 0.01, 0.05 and 0.10 for all hypothesis testing. The p-value of each variable is compared with the significant level. The p-value should be less than 0.01, 0.05 or 0.10 in order to reject the null hypothesis. Besides that, the R-squared value is reviewed. The higher the R-squared value shows that the independent variable can better explain the dependent variable.

Jarque-Bera test is used to test whether the residuals obey the normality assumptions. The p-value for each tests are compared to the significant levels, 0.01, 0.05 and 0.10. The null hypothesis will not be rejected if the p-value of each test is greater than the significant levels.

Cumulative Abnormal Return (CAR)
The abnormal return of each index i on day t (t = +1, … ,+30) following the unexpected event is calculated as follow :

$$AR_{it} = R_{it} - \check{R}_{i3}$$

Where :
R_{it} =   daily percentage rate of return for index i on day t
$\check{R}_{i3}$ =   mean return of each index i for non-event days.

Next, the CARs are calculated by adding the abnormal returns over 30 days by using the following equation:

$$CAR_{it} = CAR_{i(t-1)} + AR_{it}$$

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

492

Where :
CAR$_{it}$ = cumulative abnormal return of index i on day t
CAR$_{i(t-1)}$ = cumulative abnormal return of index i on day $(t-1)$

The significance of the CARs is tested by using t-test of null hypothesis in which the CARs for each day is equal to zero during the post event window. The t-statistic is derived from the following equation:

$$t = CAR_{it} / [Var (CAR_{it})]^{1/2}$$

Descriptive Statistics Analysis
The statistical test used in this research is Ordinary Least Squares (OLS) and Cumulative Abnormal Return (CAR). Based on the information and results obtained from the descriptive statistics analysis, it is found that KLCI and the sectoral indices do not exhibit normality.

Results and Findings

Table 4.1.1 The effect of Malaysian General Election on Kuala Lumpur Composite Index (KLCI) and sectoral indices for the 1-year period for election year 2008

KLCI/Sector	N	Dummy coefficient	F-statistics	Probability, p
KLCI	267	-1.77276	9.868520	0.001872***
Construction	267	-0.976707	4.539054	0.034051**
Consumer Product	267	-0.574476	5.962250	0.015270**
Finance	267	-0.457496	2.223830	0.137085
Industrial Product	267	-0.534489	3.942510	0.048111**
Industrial	267	-0.931586	9.068189	0.002852***
Mining	267	-0.598597	0.651771	0.420204
Plantation	267	-1.055615	4.151814	0.042583**
Property	267	-0.872528	6.947268	0.008890***
Technology	267	-0.294762	0.793125	0.373965
Trading & Services	267	-0.936930	10.30522	0.001490***

*Note. Model: $R_t=a+\beta_i D_t+\varepsilon_t$; N=number of daily stock returns. The dummy coefficient represents the election event window and the effect of the election on the stock market; ***= Significant at the 1% level; **= Significant at the 5% level; *= Significant at the 10% level.*

Table 4.1.1 shows the result of the effect of the 12th Malaysian General Election on KLCI and all sectoral indices for 1 year. The dummy coefficient, β_i is used to capture the effect of 12th Malaysian General Election towards KLCI and the sectoral indices.

Based on the result, dummy coefficients for all the indices carry a negative sign indicates that the 12th Malaysian General Election had caused the stock market to suffer a plunge. Furthermore, the significant relationship on 8 of the indices shows that there is an impact of 12th Malaysian General Election towards the stock indices return.

The p-values for most of the dummy coefficients are less than the significant level of 1% and 5%, therefore we reject the null hypothesis. In view of this, the research concludes that the 12th Malaysian General Election do affect the average daily stock returns of KLCI and sectoral indices during 5 trading days prior and subsequent to the actual day of announcement of the general election results.

Table 4.1.2 The effect of Malaysian General Election on Kuala Lumpur Composite Index (KLCI) and sectoral indices for the 1-year period for election year 2013

KLCI/Sector	N	Dummy coefficient	F-statistics	Probability, p
KLCI	266	0.371734	4.402201	0.036843**
Construction	266	1.166406	15.93440	0.000085***
Consumer Product	266	0.295086	2.649371	0.104784

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

493

Finance	266	0.467859	5.294570	0.022172**
Industrial Product	266	0.404266	3.787916	0.052685*
Industrial	266	0.399266	3.753240	0.053772*
Mining	266	-0.168188	0.053348	0.817516
Plantation	266	0.239008	1.305256	0.254290
Property	266	1.013273	7.655803	0.006059***
Technology	266	0.642961	1.849076	0.175051
Trading & Services	266	0.445195	5.957107	0.015316**

Note. Model: $R_t=a+\beta_i D_t+\varepsilon_t$; N=number of daily stock returns. The dummy coefficient represents the election event window and the effect of the election on the stock market; ***= Significant at the 1% level; **= Significant at the 5% level; *= Significant at the 10% level.

Table 4.1.2 shows the result of the effect of the 13th Malaysian General Election on KLCI and all sectoral indices for the period of 1 year. The dummy coefficient, (β_i) is used to capture the effect of 13th Malaysian General Election towards KLCI and the sectoral indices.

The results shows that there is a positive relationship between the 13th Malaysian General Election and the stock market; indicates the upward KLCI performance and sectoral indices due to announcement of 13th Malaysian General Election results. In addition, the dummy coefficient is significant for most of the indices. Construction Index and Property Index are significant at 1%, KLCI and Trading & Services Index are significant at 5% while Industrial Product Index, Finance Index and Industrial Index are significant at 1% significance level. The Consumer Product Index, Mining Index, Plantation Index and Technology Index are insignificant at any level of significance.

The p-values are less than the significance level of 1% and 5%, therefore, the null hypothesis is rejected. This conclude that the 13th Malaysian General Election do affect the average daily stock returns of KLCI and sectoral indices during 5 trading days prior and subsequent to the actual day of announcement of general election results.

Based on the post event CARs for each of the 30 days following the announcement of the 12th Malaysian General Election, the value of t-statistics are consistent with the theory of Uncertain Information Hypothesis (UIH).

Based on the post event CARs for each of the 30 days following the announcement of the 13th Malaysian General Election, the value of t-statistics are consistent with the theory of Uncertain Information Hypothesis (UIH).

Construction Index is the only index that did not contain any statistically significant CARs in response to the 13th Malaysian General Election. All the CARs in KLCI, are statistically significant while Consumer Product Index and Property Index only have one insignificant CAR which in on the 1st day after the general election. Other indices such as Mining, Technology and Trading & Services Index compromise of mostly statistically significant CARs.

Summary of Results and Findings
Based on Table 4.1.3, empirical results for this research suggest that overall Malaysian stock market is affected by both 12th and 13th Malaysian General Election.
The result shows significant coefficient of dummy variable, β for most of the indices in year 2008 and 2013. The findings are consistent with the findings of Foerster (1994), Pantzalis, Stangeland and Turtle (2000), Landler (2000), Li and Born (2006), Wang and Lin (2008), Huang, Chan, Huang and Chang (2011), Poon (2012), Opare (2012) as well as Hyam (2013).

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

494

Table 4.1.3 Summary of the results for the impact of 12th and 13th Malaysian General Election on stock indices

Index / Year	Significance of Dummy Coefficient, β	
	2008	**2013**
KLCI	SIGNIFICANT	SIGNIFICANT
Construction	SIGNIFICANT	SIGNIFICANT
Consumer	SIGNIFICANT	INSIGNIFICANT
Finance	INSIGNIFICANT	SIGNIFICANT
Industrial Product	SIGNIFICANT	SIGNIFICANT
Industrial	SIGNIFICANT	SIGNIFICANT
Mining	INSIGNIFICANT	INSIGNIFICANT
Plantation	SIGNIFICANT	INSIGNIFICANT
Properties	SIGNIFICANT	SIGNIFICANT
Technology	INSIGNIFICANT	INSIGNIFICANT
Trading/Services	SIGNIFICANT	SIGNIFICANT

Source: Developed for research

The empirical result as shown in Table 4.1.4 revealed that the arrival of 12th and 13th Malaysian General Election results as unexpected information that do not cause statistically significant price reversals in Construction Index, Finance Index, Mining Index and Technology Index in 2008 while only Construction Index in 2013. The reaction of Malaysian stock market during 12th Malaysian General Election is found to have consistency with the prediction of UIH. However, there is a larger portion of the reaction of Malaysian stock. Therefore, this research concludes that the efficiency of Malaysian stock market has increased since 2008 which is consistent with the conclusion of Akkoc and Ozkan (2013).

Table 4.1.4 Summary of results for the reaction of investors upon arrival of 12th and 13th Malaysian General Election

Index / Year	Consistency with Uncertain Information Hypothesis (UIH)			
	2008	**10% Significant level**	**2013**	**10% Significant level**
KLCI	YES	Significant at first 10 days	NO	Significant
Consumer Product	YES	Significant at first 8 days	NO	Significant
Property	YES	Significant	YES	Significant
Construction	YES	Insignificant	YES	Insignificant
Finance	YES	Insignificant	NO	Significant
Plantation	NO	Significant	NO	Significant
Trading & Services	NO	Significant	NO	Significant
Industrial Product	YES	Significant at first 10 days	YES	Significant
Industrial	YES	Significant	NO	Significant
Mining	YES	Significant only at 2nd day	NO	Significant
Technology	YES	Significant only at 1st day	YES	Significant

Source: Developed for research

Discussion of Findings

Nimkhunthod (2007) contended that the election is considered a good news based on UIH, is expected to give non negative abnormal return. However, the empirical results shows that 12th Malaysian General Election is being perceived as an unfavourable event by Malaysia's investors. This was due to the shocking voting result as it was the first time since 1969 that the coalition did not won a two-third majority in the lower house of parliament because the non-Malay citizens were rejecting the incumbent party (Pepinsky, 2009). The winning without a two-third majority had caused a change in the political structure

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

495

of Malaysia where the incumbent party is losing its supremacy. Therefore, this has lead to the plunge in the stock market the following day.

The Subprime Mortgage crisis in United States has significant effect towards trade in Malaysia (Nambiar, 2009). Since the crisis, export levels of Malaysia decreased significantly and this had affected a lot of industries. There was a blow in public confidence towards the financial markets around the world. This is evidenced by a fall in the Dow Jones Industrial Average (DJIA) for more than 1300 points since the early of 2008 to March of 2008 from 13044 points to 11740 points (S&P Dow Jones Indices, LLC, n.d.). The financial sector in Malaysia had been affected by the drop in loan growth and increase in non-performing loans (NPLs) (Ibrahim, n.d.). In addition, the Malaysia foreign direct investments (FDI) were also been affected badly evidenced by a declined in the capital and portfolio flow into Malaysia, which resulted in a tremendous drop in the FDI (Goh & Lim, 2010).

The stock index crossed the 1720 mark for the first time ever, briefly touching an intra-day peak of 1826 right after the announcement of general election results (KLCI, 2013). For the second time, the incumbent party, BN is unable to win with a two-third majority during the 13th Malaysian General Election. The stock market did not plummet and instead, witnessed a historic day on 6th of May 2013 as the benchmark FTSE Bursa Malaysia KLCI index soared to an all-time high after the country's ruling coalition returned to power for the 13th term (Godlewski, Turk & Weill, 2013).
BN through its control of Employee Provident Fund and other major government and government-linked investors and companies has been supporting the market (Marquardt, 2013). As the announcement of the victory of BN was made, the elected government has the influence to raise the KLCI to celebrate their victory (Cramb, 2013).

Ilias and Wong (2013) stated that political continuity and policy certainty are important to sustain the investment growth momentum and the implementation of projects that are in the pipeline of Economic Transformation Programme (ETP). The author also expected an uptrend in KLCI after the 13th General Election because there is greater clarity and better political stability and policy front. In addition, according to David Chua, Citibank's investment strategist, the incumbent government has done a good job in bringing foreign direct investment into the country's economy (Ng, 2013).
Following the Malaysian General Election, Construction Index and Property Index found to have among the largest CARs. The construction sector shows an uptrend after the 13th Malaysian General Election results are released because it is perceived as good news for the investors. Thus, the stock price increase reflecting the positive effect the result gives to the financial market.

Implication of Study
This study suggest that the impact of 12th and 13th Malaysian General Election on its stock market as a whole (KLCI) as well as sectoral indices are mostly significant, there are still certain sectoral indices that are not affected as evidenced by the Mining Index and Technology Index.
The foundation from past researchers has led to an assumption that general elections which arouse political news, causes political uncertainty. As the empirical results are aligned with most of the past studies, this research paper does not deny that there are possibilities of earning abnormal return. .

Conclusion
Based on the results of data analysis and discussion on the findings, it is concluded that there is an impact of the 12th and 13th Malaysian General Election on its stock market. Furthermore, Malaysian stock market react in response to general election is consistent with the prediction of UIH in 2008 but not in 2013. This shown that Malaysian stock market in 2013 has become more efficient than in 2008.

REFERENCES

Abidin, S., Old, C., & Martin, T. (2010). Effects of New Zealand general elections on stock market returns. *International Review of Business Research Papers*, 6(6), 1-12.
Aisen, A. & Veiga, F. J. (2005). How does political instability lead to higher inflation? A panel data analysis (Working Paper No.49). Retrieved from International Monetary Fund.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

496

Ajayi, R. A. & Mehdian, S. (1994). Rational Investors' Reaction to Uncertainty: Evidence from the World's Major Markets. *Journal of Business Finance and Accounting, 21*(4), 85-103.

Akinyote, I. R. (2008). Efficient market hypothesis and behavioral finance: A review of literature. *European Journal of Social Sciences, 7*(2), 7-17.

Alesina, A., Roubine, N., & Cohen, G. D. (1997). *Political Cycle and the Macroeconomy*. Cambridge, MA: MIT Press.

Ali, N., Nassir, A. M., Hassan, T., & Abidin, S. Z. (2010). Short run stock overreaction: Evidence from Bursa Malaysia. *International Journal of Economics and Management*, *4*(2), 319-333.

Alilarocha. (2011, March). Bursa Malaysia. Retrieved from http://www.study mode.com/ essays/Bursa-Malaysia-606882.html

Allvine, C., & O'Neill, E. (1980). Stock market returns and the presidential election cycle: Implications for market efficiency. *Financial Analysts Journal, 8*(2), 49-56.

Ariffin, L. J. (2013, April 19). The Election process. *Free Malaysia Today*. Retrieved from http://www.freemalaysiatoday.com/category/nation/2013/04/19/the-election-process/

Baharuddin, M. H., Abdullahi, D.A., & Teoh, C. Y. (2010). Semi-strong form efficiency: Market reaction to dividend and earnings announcements in Malaysian Stock Exchange. *IUP Journal of Applied Finance, 16*(5), 36-60.

Benchmark Index KLCI To Be Renamed As FTSE Bursa Malaysia KLCI On 6 July 2009. (n.d.). *World Federation of Exchanges*. Retrieved from http://www.world-exchanges.org/news-views/benchmark-index-klci-be-renamed-ftse-bursa-malaysia-klci-6-july-2009

Beyer, B. S., Jensen, R. G., & Johnson, R. R. (2004). Don't worry about election: Just watch the fed. *The Journal of Portfolio Management, 4*(12). Retrieved from http://www. iijounals.com/JPM/Default.asp

Bialkowski, J., Gottschalk, K., & Wisniewski, T.P. (2008). Stock Market Volatility Around National Elections. *Journal of Banking and Finance, 32*(1), 1941-1953.

Bilson, C. M., Brailsford, T. J., & Hooper, V. C. (2002). The Explanatory Power of Political Risk in Emerging Market. *International Review of Financial Analysis, 11*(1), 1-27.

Binder, J. J. (1998). The Event Study Methodology Since 1969. *Review of Quantitative Finance and Accounting, 11*(1), 111-137.

Bloomfield, R., Libby, R., & Elson, M. W. (2000). Underreactions, Overreactions and Moderated Confidence. *Journal of Financial Markets, 3*(1), 113-137.

Bradsher, K. (2008, March 25). Election outcome in Taiwan buoys stock market. *The New York Times*. Retrieved from http://www.nytimes.com/2008/03/25 /business/worldbusiness /25 taiwan.html?_r=0

Brealey, R. A., Myers, S. C., & Marcus, A. J. (1999). *Fundamentals of corporate finance* (2nded.). United States of America: McGraw-Hill.

Brockett, P. L., Chen, H. M., & Garven, J. R. (1994).*Event study methodology: a new and stochastically flexible approach* (Working Paper). University of Texas, Austin. Retrieved from http://citeseerx.ist.psu.edu/messages/downloads exceeded.html

Brown, K. D., Harlow, W. V., & Tinic, S. M. (1988). Risk aversion: Uncertain Information, and Market Efficiency. *Journal of Financial Economics, 22*(8), 355-385.

Brown, K. D., Harlow, W. V., & Tinic, S. M. (1993). The Risk and Required Rate of Common Stock Following Major Innovations. *Journal of Financial and Quantitative Analysis, 28*(3), 101-116.

Bush, P. J., Mehdian, S. M., & Perry, M. J. (2010). A Cross-Industry Analysis of Investors' Reaction to Information Surprises: Evidence from NASDAQ Sectors. *International Review of Accounting, Banking and Finance, 2*(2), 85-103.

Chaanakyan. (2008, March 9). Final election results - Malaysia 2008. *Malaysian Indians Today*. Retrieved from http://malaysianindiantoday.wordpress.com/ 2008 /03/09 /final-election-results-malaysia-2008/

Carr, M. (2012, November 7). No matter who wins, sell tech stocks after the election. *Money News*. Retrieved from http://www.moneynews.com/MichaelCarr/ technology -stocks-sell-election/2012/11/07/id/463151

Catania, P. J. (2010). Presidential elections and stock market cycles. *Baxter Credit Union*. Retrieved from https://www.bcu.org/PresidentialElectionsArticle.aspx

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

497

Chandran, N. (2013, May 5). Malaysia stocks hit record high after elections. *CNBC Asia-Pacific*. Retrieved from http://www.cnbc.com/id/100708986

Cheah, E. T. (2005). A quality award and stock market reaction: Evidence from Malaysia. *Total Quality Management &Business Excellences, 16*(6), 681-691.

Chen, C., Ariff, M., Hassan, T. & Mohamed, S. (2013). Does a firm's political connection to government have economic value?. *Journal of the Asia Pacific Economy, 18*(3). 477-501.

Cho, S. C. (2004). The Empirical Study on the Election Bull Run in Taiwan's Stock Market: 1989-2004 (Working Paper No.4). Retrieved from National Cheng Kung University.

Choong, W. K. (2013, January 29). A barbell strategy ahead of election. *The Edge*. Retrieved from http://www.theedgemalaysia.com/personal-finance/227888-a-barbell-strategy-ahead-of-election.html

Contractor, L. (February 4, 2014). On some economic instability. *DNA India.* Retrieved from http://www.dnaindia.com/analysis/standpoint-on-some-economic-consequences-of-political-instability-1959247

Corporate history: A brief historical background on the exchange. (n.d.). *Bursa Malaysia*. Retrieved from http://www.bursamalaysia.com/corporate/about-us/corporate-history/

Chuang, C. C., & Wang, Y. H. (2009). Developed stock market reaction to political change: A panel data analysis. *Quality & Quantity*. 43(6), 941-949.

Cramb, R. (2013). A Malaysian Land Grab? The Political Economy of Large-scale Oil Palm. *Asia Pacific Viewpoint, 53*(3), 223-239.

Culpan, T., Sung, C., & Forsythe, M. (2012, January 14). Ma wins second term in Taiwan election. *Bloomberg*. Retrieved from http://www.bloomberg.com/ news/2012-01-14/ma-declares-re-election-as-taiwan-president-as-voters-back-china-ties.html

Curry, J. (2012, October 11). Can you time the markets based on the presidential cycle? (Podcast). Retrieved from http://blogs.cfainstitute.org/investor/2012/ 10/11/what-is-the-effect-of-taxes-on-long-term-investments-podcast/

Davidson, L. (2012, March 21). Financial tips during a presidential election season. *Forbes*. Retrieved from http://www.forbes.com/sites/financialfinesse/2012/03/ 21/financial-tips-during-a-presidential-election-season/

DeBondt, W. F. & Thaler, R. H. (1985). Does the Stock Market Overreact?. *Journal of Finance, 40*(1), 793-805.

DeBondt, W.F. & Thaler, R. H. (1987). Further Evidence on Investor Overreaction and Stock Market Seasonality, *Journal of Finance, 42*(1),557-581.

De Medeiros, O. R. (2005). Reaction of the Brazilian Stock Market to Positive and Negative Shocks (Working Paper No. 22). Retrieved from University of Brasilia website http://papers.ssrn.com/sol3/papers.cfm?abstract_id=868464.

Destination dc; indigestion 2012: Election-inspired food and beverage specials bloom in Washington, DC. (2012, October 17). *Telecommunications Weekly.* Retrieved from http://search.proquest.com/docview/1095660042?accountid =50207

Dixon, R., & Holmes, P. (1992). Financial markets: An introduction. *International Thomson Business Press*, 9(2), 16.

Dobosz, J. (2012, October 19). Stock market haunted by crash of 1987 as Google and Apple hit the skids. *Forbes*. Retrieved from http://www.forbes.com/sites/john dobosz/2012/10/19/crash-of-1987-haunts-this-october-stock-market/

Dobson, J., & Dufrene, U. B. (1993). The impact of U.S presidential elections on international security markets. *Global Financial Journal, 4*(1), 39-47.

Dopke, J., & Pierdzioch, C. (2004). Politics and the stock market – Evidence from Germany(Working Paper No. 1203). Kiel Institute for World Economics, Hindenburg, Germany.

Engle, R. F., & Ng, V. K. (1993). Measuring and testing the impact of news on volatility. *Journal of Finance, 48*(5), 1749-1778.

Evans, S., & Mitchell, S. (2013, August 6). Election hits weak economy. *Financial Review*. Retrieved from http://www.afr.com/p/national/election_hits_weak_ economy_U98iDceQOZoRJBpcdnKycI

Fama, E. (1965). The behavior of stock-market prices. *The Journal of Business, 38*(1), 34-105

Fama, E. F., Fisher, L., Jensen, M. C. & Roll, R. (1969). The Adjustment of Stock Price to New Information. *International Economic Review, 10*(1), 1-21.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

498

Ferri, M. G. (2008). The response of US equity values to the 2004 presidential election. *Journal of Applied Finance*, *18*(1), 29-37.

Floros, C. (2008). The influence of the political elections on the course of the Athens Stock Exchange 1996-2002. *Managerial Finance*, *34*(7), 479-488.

Foerster, S. R., & Schmitz, J. J. (1997). The transmission of U.S. election cycles to international stock returns. *Journal of International Business Studies.28*(1), 1-27.

Foster, L. (2012, August 31). Does the US presidential election impact the stock market? Retrieved from http://blogs.cfainstitute.org/investor/2012/08/31/   weekend-reading-does-the-us-presidential-election-affect-the-stock-market/

Freeman, J., Hays, J. C. & Stix, H. (1999). The electoral information hypothesis revisited. University of Michigan, Ann Arbor.

Fung, A. K. (1999). Overreaction in the Hong Kong Stock Market. *Global Finance Journal, 9*(1), 223-230.

Gaunt, C. (2000). Overreaction in the Australian Equity Market: 1974-1997. *Pacific Basin Finance Journal, 20*(1), 375-398.

Gemmill, G. (1992). Political risk and market efficiency: Tested based in British stock and options markets in the 1987 election. *Journal of Banking and Finance, 16*(1), 211-231.

General election's effect on local stock market. (2008, March 10). *Finance Twitter*. Retrieved from http://www.financetwitter.com/2008/03/general-elections-effect-on-local-stock.html

Gilbert, C. L. (1996). International commodity agreements: An obituary notice. *World Development, 24*(1), 1-19.

Godlewski, C. J., Turk-Ariss, R., & Weill, L. (2013). Sukuk vs. conventional bonds: A stock market perspective. *Journal of Comparative Economics*, *41*(3), 745-761.

Goh, S. K., & Lim, M. H. M. (2010). The impact of the global financial crisis: The case of Malaysia. *TWN Global Economy Series: Financial Crisis and Asian Developing Countries*, *26*.

Goldberg, S. (2010, October 12). How elections affect the stock market. *Kiplinger*. Retrieved from http://www.kiplinger.com/article/investing/T041-C007-S001-   how-elections-affect-the-stock-market.html

Grant, L. J., & Trahan, A. E. (2006). Tactical asset allocation and presidential elections. *Financial Services Review, 15*(2), 151-165.

Grossman, S. J. & Stiglitz, J. E. (1980). On the Impossibility of Informationally Efficient Markets. *The American Economic Review,* 393-408

Gwilym, O., & Buckle, M. (1994). The efficiency of stock and opinions markets: Test based on the 1992 U.K election opinion polls. *Applied Financial Economics, 4*(1), 345-354.

Haas, M. & Pigorsh, C. (2007). Financial Economics, Fat-tailed Distributions. *Encyclopedia of Complexity, 4*.

Hellwig, M. F. (2009). Systemic risk in the financial sector: An analysis of the subprime-mortgage financial crisis. *De Economist*, *157*(2), 129-207.

Herbst, A.F, and Slinkman, C.W. (1984). Political-economic cycles in the U.S stock market. *Financial Analyst Journal, 40*(4), 38-44.

Hibbs, D. (1977). Political parties and macroeconomic policy. *American Political Science Review*, *7*(12), 1467 – 1487.

Hill, P. (2004, Nov 13). Consumer confidence rises after election. *Knight Ridder Tribune Business News*. Retrieved from http://search.proquest.com/docview /461824756? accountid=50207

Howe, J. S. (1986). Evidence on Stock Market Overreaction. *Financial Analyst Journal, 6*(1), 74-77.

Huang, R.D. (1985). Common Stock Return and Presidential Elections. *Financial Analyst Journal, 41*(2), 58-62.

Huang, H. H., Chan, M. L., Huang, I., & Chang, C. H. (2011). Stock price volatility and overreaction in a political crisis: The effects of corporate governance and performance. *Pacific-Basin Finance Journal. 19*(1), 1-20.

Hyam, R. (2013, September 9). Good gains on stock market as investors embrace decisive election result. *ABC News*. Retrieved from http://www.abc. net.au/news/ 2013-09-09/good-gains-as-investors-embrace-decisive-election-result/4946564

Ibrahim, M. B. (n.d.). Impact of the global crisis on Malaysia's financial system. *BIS Paper, 48*(2). 267-278

Iihara, Y., Kato, H. K., & Tokunaga, T. (2004). The Winner-loser Effect in Japanese Stock Returns. *Japan and the World Economy, 4*, 471-485.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

499

International Immigation: Asia: Malaysia. (2007). *Versfeld & Hugo LLC*. Retrieved from http://versfeldlaw.com/Immigration.aspx?QMainId=Ovnass200711281 9178&QSubId=Ovnass2007121383957&QSubGrpId=Ovnass2007127125425

Introducing the FTSE Bursa Malaysia KLCI. (2009, June 30). *The Edge.* Retrieved from http://www.theedgemalaysia.com/insider-asia/17579-introducing-the-ftse-bursa-malaysia-klci.html

Invest in Malaysia. (n.d.). *Malaysian Investment Development Authority*. Retrieved from http://www.mida.gov.my/env3/index.php?page=banking-system

Ising, J., Schiereck, D., Simpson, M. W., & Thomas, W. T. (2006). Stock Returns Following Large 1-month Declines and Jumps: Evidence of Overoptimism in the German Market. *The Quarterly Review of Economics and Finance, 6*(1), 1-22.

Ismail, Z. I. (2012, December 18). General election may rejuvenate Malaysia stock market. *The News Straits Times*. Retrieved from http://www.btimes.com.my/ Current_News/BTIMES/articles/NOMUND/Article/

Jensen, M. N., & Schmith, S. (2005). Market responses to politics: The rise of Lula and the decline of Brazilian stock market. *Comparative Political Studies, 38*(5), 1245-1270.

JetBlue Airlines offers contest to leave country following presidential election. (2012, October 4). *Afro*. Retrieved from http://www.afro.com/sections/news /afro_briefs/story.htm?storyid=76342

Jones, C. P. (1993). *Investments*. New York:John Wiley & Sons.

Jones, S. T., & Banning, K. (2009). US elections and monthly stock market returns. *Journal of Economics and Finance,33*(3), 273-287.

Jong, F. D., Kemna, A. and Kloek, T. (1992).A contribution to event study methodology with an application to the Ducth Stock Market.*Journal of Banking and finance.* 16(1), 11-36.

Jothee, S. & Annuar, M. N. (2007). The Speed of Price Adjustment to Corporate Announcements: A Bursa Malaysia Experience on Final Dividend Announcements. *European Journal of Economics, Finance and Administrative Sciences, 7*(7), 7-21.

Kamal, E. M., Haron, S. H., Ulang, N. M., & Baharum, F. (2012). The Critical Review on the Malaysian Construction Industry. *Journal of Economics and Sustainable Development, 3*(13), 81-87.

Keef, P. S., & Roush, W. (2004). The influence of the political party in the power on the Dow Jones industrial average: 1896-2001. *Journal of Finance, 3*(3), 5-14.

Kendall, M. (1953). The analysis of economic time-series-part I: Prices. *Journal of the Royal Statistical Society, 116*(1), 11–34.

Kim, H. Y., & Mei, J. P. (2001). What makes the stock market jump? An analysis of political risk on Hong Kong stock returns. *Journal of International Money and Finance*, *20*(7), 1003-1016.

Kondak, N. E. (1997). The Efficient Market Hypothesis revisited: Some evidence from the Istanbul Stock Exchange. *Capital Board of Turkey*, *83*(7), 113-122.

Lall, S. (2006). Malaysia: Industrial success and the role of the government. *Journal of International development, 7*(5), 759-773.

Landler, M. (2000, March 14). Taiwan stock market plummets over election jitters. *The New York Times*. Retrieved from http://www.nytimes.com/2000/03/14/ world/ taiwan-stock-market-plummets-over-election-jitters.html

Lesson 6- Key Factors Affecting Exchange Rate. (n.d.). *Starfish FX*. Retrieved from http://starfishfx.com/en/learn-forex/learn-forex-lesson-6/

Li, J., & Born, J. A. (2006). Presidential election uncertainty and common stock returns in the United States. *The Journal of Financial Research, 29*(4), 609-622.

Lim, K. H., & Har, W. M. (2008). "Political Volcano" in 12th Malaysian general election: Makkal sakhti (people power) against communal politics, "3Cs" and marginalization of Malaysian Indian. *Journal of Politics and Law*, *1*(3).

Liow, R. S. L. (2010). *Performance of construction company listed in Kuala Lumpur Stock Exchange* (Doctoral dissertation). Universiti Malaysia Pahang, Malaysia.

Lopez, G. (2010, July 6). The 13th General Election in Malaysia. *New Mandala*. Retrieved from http://asiapacific.anu.edu.au/newmandala/2010/07/06/the-13th-general-election-in-malaysia/

Malaysia Stock Market (FTSE KLCI). (n.d.). *Trading Economics*. Retrieved from http://www.tradingeconomics.com/malaysia/stock-market

Malaysia's Election Political Tsunami?. (2008, March 10). *The Economist*. Retrieved from http://www.economist.com/node/10833119

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

500

Maloney, M. T., & Mulherin, J. H. (2003). The Complexity of Price Discovery in an Efficient Market: The Stock Market Reaction to the Challenger Crash. Journal of Corporate Finance, 9(3), 453-479.

Manning, D. N.(1989). The effect of political uncertainty on the stock market: The case of BritishTelecom, *Applied Economics, 21*(1), 881-889.

Marquardt, L. (2013). The Internationalisation Process and Corporate Governance of Malaysia's Government-linked Companies. *Business Management and Corporate Governance, 2*(13), 1-83.

Matozzi, A. (2008). Can we insure against political uncertainty? Evidence from the U. S. stock market (Working Paper No. 91125). Retrieved from California Institute of Technology.

Matthews, C. (2012, November 8). Election day hangover: Stock market plunge as investors eye fiscal cliff. *Time*. Retrieved from http://business.time.com/2012 /11/08 /election-day-hangover-stock-markets-plunge-as-investors-eye-fiscal-cliff/

Menon, N. R., Subha, V. M., & Sagaran, S. (2009). Cointegration of Indian stock markets with other leading stock markets. *Studies in Economics and Finance, 26*(2), 87-94.

Michayluk, D. & Neuhauser, K. L. (2006). Investor Overreaction During Market Declines: Evidence from the Asian Financial Crisis. *The Journal of Financial Research, 29*(2), 217-234.

Newman, R. (2012, October 17). How the election might affect the stock market. *US News*. Retrieved from http://www.usnews.com/news/blogs/ricknewman/2012 /10/17/how-the-election-might-affect-the-stock-market

Ng, B. S. (2013, April 5). General election may have an impact on outlook of M'sian stock market. *The Star Online*. Retrieved from http://www.thestar.com.my/ Business/Business-News/2013/04/05/General-election-may-have-an-impact-on-outlook-of-Msian-stock-market.aspx

Ng, J., & Gangopadhyay, A. (2013, May 5). Update: Malaysia's markets rise after election. Retrieved from http://blogs.wsj.com/searealtime/2013/05/05/ malaysias-markets-expected-to-dive/

Ngu, C. K. (2004, Mar 22). Positive surprises from election to buoy KLCI. *Business Times*. Retrieved from http://search.proquest.com/docview/267612341? accountid = 50207

Nordhaus, W. D., (1975). The Political Business Cycle. *Review of Economic Studies, 42*(1), 169-190.

Opare, A. (2012, September 15). Effects of general elections on the return and volatility of stocks: The evidence from Europe (Working Paper No. 224033) Retrieved from Catholic University of Milan, Italy website http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2224033

Pantzalis, C., Stangeland, D. A., & Turtle, H. J. (2000). Political elections and the resolution of uncertainty: The international evidence. *Journal of Banking and Finance, 24*(10), 1575-1604.

Pepinsky, T. B. (2009). The 2008 Malaysian elections: An end to ethnic politics? *Journal of East Asian Studies*, 9(10), 87-120.

Pettengill, G. N. & Jordan, B. D. (1990). The Overreaction Hypothesis, Firm Size, and Stock Market Seasonality. *Journal of Portfolio Management, 16*(3), 60-64.

Political tsunami: The country's ruling coalition has suffered its biggest defeat since Independence in 1957. (2008, March 9). *The Daily Beast*. Retrieved from http://www.thedailybeast.com/newsweek/2008/03/09/political-tsunami.html

Rezvanian, R., Turk, R. S. and Mehdian, S. M. (2011). Investors' Reactions to Sharp Price Change: Evidence from Equity Markets of the People's Republic of China. *Global Finance Journal, 22*(11), 1-18.

Rudner, M. (1970). The Malaysian General Election of 1969: A Political Analysis. *Modern Asian Studies, 4*(1), 1-21.

Salamusin, N., Ariff, M., & Nassir, M. A. (1999). Economic influence on rights issue announcement behavior in Malaysia. *Pacific Basin Finance Journal, 7*(3), 405-427.

Sayce, K. (2013, August 20). How the election could impact stocks, and why you should ignore it…. *Money Morning Australia*. Retrieved from http://www.mo neymorning.com.au/20130820/how-the-election-could-impact-stocks-and-why-you-should-ignore-it.html

Schonfeld, E. (2008, October 6). Tech stocks take it on the chin as market continues to freefall. *TechCrunch*. Retrieved from http://techcrunch.com/2008/10/06/ tech-stocks-take-it-on-the-chin-as-market-continues-to-freefall/

Schwert, G. W. (1990). Stock returns and real activity: a century of evidence. *Journal of Finance, 45*(9), 1237-1257.

Seltzer, R. (2012). Upstate consumer confidence rises in pre-election, pre-sandy polling. *The Business Journal - Central New York, 26*(46), 5.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

501

Sevim, S., Yildiz, B., & Akkoc, S. (2007). Overreaction Hypothesis and an Empirical Work on the Istanbul Stock Exchange. *Istanbul Stock Exchange Review, 9(*35), 21-36.

Singh, B. (2012, June 12). JP Morgan says general election is key market risk for Malaysia. *Malaysian Reserve*. Retrieved from http://themalaysianreserve.com/main/news/corporate-malaysia/1521-jp-morgan-says-general-election-is-key-market-risk-for-malaysia

Smith, C. W. (n.d.). Stock market Malaysia history and operations. *FKLI Chart*. Retrieved from http://fklichart.info/stock-market-malaysia-history-and-operations/

Soultanaeva, A. (2008). Impact of political news on Baltic state Stock Markets.*Umea Economic Studies, 735*(33), 1-31.

Steeley, J. M. (2003). Making political capital: the behavior of the UK capital markets during election 97, *Applied Financial Economics, 13*(3), 85-95.

Stodden, V. (2008, April 4). The internet drives election results in Malaysia. Retrieved from https://blogs.law.harvard.edu/idblog/2008/04/04/the-internet-drives-election-results-in-malaysia/

Suleman, M. T. (2012). Stock market reaction to terrorist attacks: Empirical evidence from a front line state. *Australasian Accounting Business and Finance Journal, 6*(1), 97-110.

Tan, O. G., & Gannon, G. L. (2002). "Information effect" of economic news: SPI futures. *International Review of Financial Analysis, 11*(4), 467-489.

Tay, T. Y. (2012, April 12). Freedom from fear. *The Malaysian Insider*. Retrieved from http://www.themalaysianinsider.com/print/sideviews/freedom-from-fear-tay-tian-yan

Tee, M. (2013, January 9). 2013 - general elections key to market performance. *Shares Investment*. Retrieved from http://www.sharesinv.com/articles/2013/ 01/09/2013-general-elections-key-to-market-performance/

Thau, B. (2012, November 8). How Obama's re-election could boost the retail industry. *Forbes*. Retrieved from http://www.forbes.com/sites/barbarathau /2012/11/08/experts-sound-off-what-obama-re-election-means-for-retailindu stry/

The stock exchange of Malaysia. (n.d.). *UKessays.co.uk*. Retrieved from http://www.ukessays.co.uk/essays/business/the-stock-exchangefmalaysia.php

Valetkevitch, C. (2012, December 11). US stocks-Big tech boosts S&P 500 to best close since election. *Chicago Tribune News*. Retrieved from http://article s.chicago tribune.com/2012-12-11/news/sns-rt-markets-usa-stocks-update-6l1e8nbcwa-20121211_1_tech-boosts-phlx-semiconductor-fiscal-cliff

Van Trotsenburg, A. (June 4, 2013). Financial sector part of Malaysia's success. *New Straits Times*. Retrieved from http://www.nst.com.my/opinion/columnist/ financial-sector-part-of-malaysia-s-success-1.293070

Vuchelen, J. (2003). Electoral systems and the effects of political events o the stock market: The Belgian case. *Economics and Politics, 15,* 85-102.

Wagstaff, J. (2013, May 5). In Malaysia, online election battles take a nasty turn. *NBC News.* Retrieved from http://www.nbcnews.com/technology/malaysia-online-election-battles-take-nasty-turn-6C9783842

Wessel, D. (1993, September 1). Consumer confidence sagged in august, wiping out gains since Clinton election. *Wall Street Journal*. Retrieved from http://search.proquest.com/docview/398387949?accountid=50207

Wong, S. W. (n.d.). Introduction to the Event Study Methodology. *Singapore Management University, 1*(1), 1-12.

Wong, W. K., & McAleer, M. (2007). Mapping the presidential election cycle in US stock markets. *Mathematics and Computers in Simulation*, *79*, 3267-3277.

Yalcin, K. C. (2010). Market rationality: Efficient Market Hypothesis versus Market Anomalies. *European Journal of Economic And Political Studies, 3*(2), 23-38.

Yein. (2008, March 9). Malaysia's 12th General Election results. *Yee Jein's Asian Journal.* Retrieved from http://yeinjee.com/malaysia-12th-general-election-results/

Yeoh, K. C., Arshad, A., & Hooy, M. W. (2010, June 6). KLCI displays election year pattern. *The Edge*. Retrieved from http://www.theedgemalaysia.com/business-news/234170-klci-displays-election-year-pattern.html

Yeyati, E., & Williams, T. (2012). Emerging economies in the 2000s: real decoupling and financial recoupling. *Journal of International Money and Finance*, *31*(8), 2102-2126.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

502

Young, J. (2012, November 8). Upper income investors could jar markets as congress turns to fiscal debates. *Seeking Alpha*. Retrieved from http://seekingalpha.com /article/989611-upper-income-investors-could-jar-markets-as-congress-turns-to-fiscal-debates

Yusof, N. L. (2004, Mar 23). BN election victory fuels stock market. *Business Times*. Retrieved from http://search.proquest.com/docview/267613773?accountid= 50207

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

503

The Effect of China's Outward Foreign Direct Investment on the Economic Development: A Comparative Analysis of Developed and Developing countries

Yuen-Xian, Too[a], Chee-Keong, Choong[b], Chin-Yoong, Wong[c]

[a] *Universiti Tunku Abdul Rahman, tooyx@utar.edu.my*

[b] *Universiti Tunku Abdul Rahman, choongck@utar.edu.my*

[c] *Universiti Tunku Abdul Rahman, wongcy@utar.edu.my*

Abstract

Driven by the rapid expansion in China's trade network and the appetite for natural resources to support economic growth, China has been one of the major sources of foreign direct investment in the world economy. However, there is only a handful of research on the impact of China's Outward Foreign Direct Investment (FDI). This study fills the gap by examining the impact of China's outward FDI on the economic growth. This empirical study employs panel Generalized Method of Moment (GMM) on 91 countries for the period of 2003 to 2009, categorized by the level of income and geographical location. The results indicate that China's outward FDI has significant positive effect on the economic growth of the developed and developing countries. In particular, the results show that the impact of China's outward FDI on developed countries is greater than those developing countries.

Keywords: China's outward FDI, Developing countries, Developed countries.

Introduction

Foreign direct investment (FDI) is an investment flow in which foreign investors transfer their domestic structures, equipment and organizations inwardly or outwardly from their home countries. FDI works in a special manner where it directly bring forth prosper to the economy development of both host and home countries in return it could be a more durable source of investment, Thus, FDI is believed to be more efficient than equity investments in firms, investors tend to shift out their investment upon receiving benefits or profits from the host country, leading to a sudden lost of capitals in a short term causing negative impact toward host country. Therefore, these investments could bring benefit to the home countries but at the same time, these may harm to the host county. As a consequence, equity investment also known as "hot money" is less effective than FDI. Besides, from some review, researchers has reassured that FDI works beyond the theoretical basis in which in real life scenario; FDI causes a huge positive impact to the economic development of host country (De Mello, 1997).

In the past few decades, the gap of FDI flow between the developed countries and developing countries is large. Most of the outward FDI is solely contributed by the developed countries where the remaining portion of FDI is distributed across the developing countries due to the most developing countries are actually the recipients of the outward FDI. However, the trend of the global FDI flow has changed recently due to the rise of the developing countries. The volume of the global FDI contributed by developing countries has increased significantly and even became one of the important foreign investors in the world. In spite of this, most researches still focus on the FDI impact of the developed countries like U.S. which has neglected the impact of the developing counties. With the rise of the developing countries, China is one of the most successful examples amongst the developing countries which have created sufficient intangible assets to a main FDI contributor.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

504

Figure 1 China's Outward FDI from 1990 to 2009

Source: UNCTAD (2007) and MOFCOM (2010).

From Figure 1, China's outward FDI slowed a slow increased from 1982 to 1991 with a low volume of outward FDI of less than one billion U.S. dollar annually. There are few reasons which could be used to explain on the slow increment of China's outward FDI which could be categorize as the early stage of the China's outward FDI. Firstly, China yet to open up her market globally and has a restricted investment approval procedures as well as a tight for foreign exchange control. Secondly, due to the poor competitiveness of China's firms, it affected the domestic investors where investing abroad became more difficult due to the quality and productivity of domestic firms is low as compared to foreign products. Thus, it became difficult to invest abroad and to compete with others. Thirdly, only the large firms have a huge capital to invest abroad as compare to other small firms. Most of the large firms in China are state-owned enterprises (SOEs) which controlled by the government to invest solely in projects that have high relevance to the national benefits, such as resource-oriented. During the period of 1991 to 1993, the government has implemented outward investment policies that encouraged the foreign investors and this led to an increment in the outward FDI. However, the outward FDI has gradually slowed down in 1994 due to the government sought to cool the rate of domestic economic expansion.

From 1996 onward, outward FDI flows recovered and increased modestly from 1996 to 1998 as a result of the further foreign exchange and trade liberalization, exports of China growth and the handover of Hong Kong. However, the impact of the East Asian financial crisis has slowed down the outward FDI of China in 1999. The government faced re-imposition of foreign exchange controls and the economic slowdown of neighboring countries. In 2001, government has implemented the "Go Global" policy which had a drastic positive impact on the outward FDI of China with sharp increment. During this period of time, the growth of outward FDI has affected some commentators in which it ensured that China's firms has becoming more important than foreign investors in Asian region and beyond (UNCTAD, 2003). By contrast, the outward FDI of China has decreased on 2002. The global foreign direct investment also faced the downward trend because of the economic downturn in the U.S. and in the broad global economy.

Between 2003 and 2009, the China's outward FDI has increased dramatically. A number of China's firms have gained their competitive power to compete with other foreign firms investing abroad and to expand their market because they are strongly supported by the government. In 2007, Subprime mortgage crisis which occurred in 2007, it has negatively affected the U.S and the global economy. However, the outward FDI of China has increased sharply without affected by the crisis as China has a large financial reserve to stabilize any financial issues whereas most of the western countries suffered from the crisis. Although there is an overall depreciation in FDI globally following the 2009 financial crisis, it did not highly affecting the outward FDI of China which is shown just by an increment in lower rates.

In the early transformation of China, the government has implemented the "Open Door" policy which has attracted large amount of FDI flows into China. As China continues to expand, the inward FDI also increases drastically resulted in a massive number of literatures studying on different forms of FDI flowing into China (Fung et al., 2005). China's investment and firms which dramatically expanded outwardly have attracted the worldwide interest, concern and controversy. Thus, the rise of FDI outflows from developing countries like China has caught the attention of academicians, researchers and policymakers in the last few years. As China's outward FDI has drawn an increasing number of attentions. Yet all early studies mainly focused on the determinants of outward expansion of China's firms (Taylor, 2002; Wong & Chan, 2003; Deng, 2003; 2004), while in more recent studies, they are mainly concentrated on the China's company case studies on outward FDI (Liu & Li, 2002; Warner et al., 2004; Zhang & Filippov, 2009). Other than these, there is also some researchers study on specific countries such as Germany (Schuler-Zhou & Schuller, 2009), Italy (Pietrobelli et al., 2010), United Kingdom (Cross & Voss, 2008; Liu & Tian, 2008) and some may study on particular industries like automotive sector (Amighini & Franco, 2011). In certain countries, China's outward FDI is viewed as a combination of hope and fear. Due to the lack of empirical literature reviews, it is difficult to have a solid conclusion on the

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

505

impact of China's outward FDI. In term of fear, there are different opinions of political hot potato which while hope is related to a helping hand as an aid to the on-going crisis.

Although the attention has drawn toward China, yet there is always doubt of the impact of China's outward FDI toward host countries. Throughout these years, there is always less empirical researches or studies done on the impact of China's outward FDI on the host countries. It is difficult to find a similar research that study about the effect of China's outward FDI on developed and developing countries to fulfill the gap on the impact of China's outward FDI.

Methodology

This study examined the empirical results of the effect of China's outward FDI on the economic growth of the developed countries and developing countries by using the GMM estimator. The effect of China's outward FDI on the economic growth of developed countries and developing countries is examined in which 91 of the developing and developed countries are selected based on different amount of gross national per capita within the period of 2003 to 2009 followed by discussion in the following sections accordingly.

To examine the effects of China's outward FDI on the economic growth on developed countries and developing countries. In this study, it apply the concept of Hu et al.'s approach (2005) to posit the economic growth on the developed countriesand developing countries. In the model, the output emerges according to a production function augmented with many inputs that countries used. For country, *i* at time, *t*:

$$ \tag{1} $$

where is economic growth, is total factor productivity *,* is the stock of capital, is the stock of labor, and is the stock of human capital.

In this approach of Hu *et al.* (2005) used to test on the effects of technology transfer to the output. They assumed that the total factor for productivity is a function of country level trade openness with China and firm FDI. Imitation (Glass & Saggi, 1999) through the reverse engineering (Hu *et al.*, 2005) of products and capital goods they realized that is either through FDI or through trade which is one of the ways of technology transfer and allowed by the parameterization of .

Besides, the trade openness could capture the idea of knowledge spillovers created by trade possibly (Findlay, 1978; Bin & Wang, 2000; Keller, 2004). Generally, trading helps to set up and support the cross-country communications. It provides the cross-country on the learning of production methods, product design and organizational methods (Keller, 2004). Those methods can efficiently improve on the total factor productivity for firms.

Moreover, trade is an important variable in many studies. For example, World Bank (1993) showed that the countries have moved forward to globalization and more open to the global exchange of goods and services as well as technologies. The more open these countries are, the more significant the growth rate would be. Many researchers believed that the East Asian countries had enjoyed dramatic growth in economic development in the past 50 years by taking part in the international economy. Ricardo (1817) suggested that trading would possibly bring forth profit to the countries. These profits stem from the specialization in their production by having an international trade. By specialize in their skills to gain the comparative advantage. It will eventually improve the resource allocation. Furthermore, it could also improve on the efficiency of production as the resources used for the production have been transferred to country with better productivity. Therefore, there is an improvement on all the trading countries. However, there is only a level-effect in consumption possibilities.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

506

Our specification of total factor productivity (TFP) for firm, *i* at time, *t* is:

(2)

where is China's outward FDI for country, *i* at time, *t*, is a measure of country-level trade openness for country *i* at time *t*, is measure the government spending for country *i* at time *t*, is the measurement of the inflation for country, *i* at time, *t* and is a constant. The total factor productivity is characterized as. The total factor production allows us to capture the effects of trade openness.

- through the effects of displacement of goods and services produced by developed firms and developing firms
- through import competition (), and
- through China's technology transfer expenditures that are included in FDI (*).

This study also includes the government spending and inflation into the total factor production where both the spending and inflation have significant impacts on the productivity of the country. Therefore, government spending and inflation is exclusively included in this study to examine the economic growth of the host country to avoid the miss-specification error existence.

As the interest of this study mainly focus on the extent to which outward FDI of China affecting the economic growth on developed countries and developing countries. The total factor production, *A* is hence substituted from the equation 2 into the equation 1. In the equation 2, it includes two control variables where the inflation and government spending which have the power to affect the total factor production and the economic growth of the host country. Besides, equation 3 does not include human capital because this is overlapping with the labor variables, as to avoid any existence of the overlapping data problem.

(3)

Data

The data set consists of 91 countries as cross-sectional observations and seven time-series observations from year 2003 to 2009. In total, there are 637 panel observations. Most of the data used in this empirical study are collected from World Development indicator and IMF, World Bank. These data included GDP, exports, imports, population, inflation, government spending and capital. Besides, the trade openness is measured from two different sources namely World Bank indicator and IMF database. The measurement of the trade openness for each country in the sample is the ratio of export and import per nominal GDP to country's gross domestic product (GDP) in US dollar.

Subsequently, many studies have used the overall China's FDI as the proxy of China's outward FDI. There is also an empirical study uses the balance of payment or amount investment abroad approved by China as proxy of China's outward FDI. However, there are limited studies using the China's outward FDI on each of the host countries as the proxy of China's outward FDI. Some researchers did not use China's outward FDI on host countries because of the data consist of paucity problem. Prior to that, China started to publish the outward FDI data in the statistical Bulletin of China's outward FDI by MOFCOM of the People's Republic of China. Prior 2003, China did not have any standard format or way to recode the data of outward FDI which limited the outward FDI data. Eventually, the relatively short sample period makes it difficult to be analyzed in this research. Therefore, in this study, the China's outward FDI on each country is used as the proxy because it can capture the effect of China's outward FDI on every single host country.

Result

In this section, the effect of China's outward FDI on the economic growth between developing countries and developed countries from 2003 to 2009 is being categorized according to World Bank

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

507

income and analysis category. Countries are divided based on different income groups according to 2008 Gross National Income (GNI) per capita whilst calculated using the World Bank Atlas method. The groups with less than 975 U.S. dollar are listed as low income; lower-middle income ranging from 976 to 3855 U.S. dollar; upper-middle income from 3,856 to 11, 905 U.S. dollar; and high income with more than 11, 906 U.S. dollar:

Table 1. List of Developing Countries and Developed Countries

Categories	Countries	No. of Countries
Developing countries	Algeria, Argentina, Azerbaijan, Bangladesh, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Cambodia, Chile, Colombia, Congo Republic, Cote d'Ivoire, Ecuador, Egypt, Ethiopia, Gabon, Ghana, Guinea, India, Indonesia, Jordan, Kazakhstan, Kenya, Lesotho, Madagascar, Malaysia, Mauritania, Mauritius, Mexico, Mongolia, Morocco, Mozambique, Nepal, Pakistan, Panama, Papua New Guinea, Peru, Philippines, Romania, Russian Federation, Rwanda, Senegal, South Africa, Sri Lanka, Sudan, Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, Uruguay, Uzbekistan, Venezuela, Vietnam, Yemen Republic, Zambia, Zimbabwe	61
Developed countries	Australia, Austria, Bahamas, Belgium, Canada, Czech Republic, Denmark, France, Germany, Hong Kong, Hungary, Ireland, Israel, Italy, Japan, Korea, Latvia, Macao SAR, Malta, the Netherlands, New Zealand, Poland, Qatar, Saudi Arabia, Singapore, Slovak Republic, Sweden, Switzerland, United Kingdom, United States	30

Table 2. GMM Estimation Result of China's Outward FDI and Economic Growth on Developing Countries and Developed Countries

	Developing countries	Developed countries

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

508

Variable	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
OFDI	0.4620	1.9791	0.0487**	0.6226	1.7432	0.0834*
OPENNESS	0.8454	3.2806	0.0012***	0.1606	1.3689	0.1732
OFDI* OPENNESS	-0.6029	-2.5794	0.0104**	-0.6919	-1.8641	0.0644*
GOVSPEN	0.2324	1.4657	0.1438	-0.5280	-2.2804	0.0241**
INFLATION	0.0153	1.9371	0.0537*	0.0248	2.0009	0.0473**
CAPITAL	0.7121	4.2348	0.0000***	1.1592	5.7080	0.0000***
LABOR	0.1124	1.6891	0.0923*	0.4653	2.6979	0.0078***
R-squared	0.6457			0.8017		
J-statistic	3.7295			0.7678		
Instrument rank	10			9		
Sargan Test	0.2922			0.8491		

* refers to 0.1 significance level
** refers to 0.05 significance level
*** refers to 0.01 significance level

Firstly, China's outward FDI has significant positive impacted on the job opportunity of the developing countries and developed countries (Kubny & Voss, 2010; Zhao, 2013; Rosen & Hanemann. 2011).As usual, China's firms shifted their production line or labor intensive process into developing countries and create massive job opportunities thus improved their living standards indirectly. Though the acquisition of China's firms is yet in the low productive local firms of the developed countries, China succeeded in bringing out a restructuring process as well which might be able to avoid job losses but continue to increase the job opportunity for local residents. China's investments safeguard the domestic employment that in the brink of shutdown, and sometimes might lead to job creation while the firms have recovered.

Next, China's outward FDI is also a source of capital for developing countries and developed countries. In general, developing countries strongly relied on the foreign investments for their economic development due to their low productivity, trade deficit and lack of capital for developments. On the other hand, developed countries which easily harmed by financial crisis especially in 2007 and which required massive resources and reserves to rebuild their economies by seeking for foreign capital in the world to finance their economic recovery activities. Meanwhile, the global outward FDI has reduced dramatically from 2.3 trillion in 2007 to 1.3 trillion U.S. dollars in 2010. Even though the global outward FDI including most of developed countries FDI have decreased dramatically during the financial crisis, China's outward FDI has a complete outstanding trend of dramatic growth during the crisis which has shown to be an important country to the developed countries. China's FDI became a new crucial source of FDI in the world market to fulfill the shortfall in capital and investment needs for the developed countries (American Chamber of Shanghai, 2010).

Following that, researchers showed that China's outward FDI has brought up a huge positive impact on the productivity of the developing countries (Gaulier et al, 2005; Lemoine & ünal-Kesenci, 2004)

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

509

but developed countries differently. For developing countries, China's firms have clearly enhanced the production capacity of resources sector and created new exploitation areas such as copper mining in Peru, the pre-salt oilfields in Brazil, hydrocarbons sector in Argentina (ECLAC, 2010), oil industry development in Sudan. Besides, China's also provided training and sent out specialist to the developing countries to improve on the local productivity and economy. For example China had provided training for 14,600 people in different sectors in Africa (Zhang, 2006). During 2006, China has trained up to 15,000 African professionals, sent out 100 senior agricultural professionals to Africa and created 10 special agricultural technology demonstration centers. China's government has also provided scholarships for African students which have an annual increment from 2,000 people in 2006 to 4,000 people in 2009 (Chee, 2006).

On the other hand, China's FDI brought positive impacts on productivity and innovation to the developed countries. Developed countries' firms started to combine their technology with China recently as it could improve on their productivity, creativity and innovative to fulfill the needs of new and different customer segments. Normally, developed countries serve the high level consumers while less concentrate on the low level consumers. In contrast, China's firms are totally different with those developed countries as China's firms emphasized more efforts on the low level consumers. During the world economy crisis, the number of high level consumers decreased leading to a shrinkage of market size, developed countries' firms situated to combine their technologies with China's firms to maintain their quality of products and minimize the cost of production to serve the low level consumers. For example, Jilin Provincial Huang Investment Group Co. Ltd. deals with Regina-based A1 Soybean Enterprises Ltd. to invest in reforestation activities in Canada by using Jilin Provincial's irrigation technology. In United Kingdom, the Greek harbor of Piraeus just produced six Twenty-foot Equivalent units per hour before being taken over by China's firms COSCO and now it could produce an average of 22 units or even higher unit which helped many automotive equipment manufacturers in U.K. to survive through the crisis and even sometimes expanded in the world market.

Arising from this, China's outward FDI also enhanced the competeiveness within the developing countries which is the first step toward competing with other large developed countries (Long, 2005). China's FDI has probably strengthened the local development through the improvement of their production fragmentation of the developing countries. Kubny et al (2008) showed that China's outward FDI has positively affected the institutional ASEAN integration process. China's FDI has totally brought up a new revolution in the developing countries by strengthening the local division of labors, enhancing competitiveness, and enlarging export markets. On the other hand, China's investment has increased the competitiveness of the developed countries in the global market and improved on the consumer welfare of the developed countries by providing low prices, product diversity and selection as well as enhancing the innovation cycles. These advantages have expanded over the traditional goods trade to product segments that required more effective presence in the consumer markets particularly in services, in which China's firms have already established a strong global position in various services industries. For example, China's investors invested over 30 million U.S. dollar on a refrigerator plant of Haier in Camden, South Carolina and hired approximately 600 residents in assembly department, R&D and administration. This investment of Haier in U.S has improved and shaped the development from a domestic original equipment manufacturer to a global brand. Haier is now the largest white good producer in the world, exporting luxury refrigerators made in United States to China and other markets. Besides, Lenovo used 1.75 billion U.S. dollar to takeover IBM's personal computer division in 2005 and also provided 10 million U.S. dollar in the R&D facility and fulfillment center in Greensboro, North Carolina. Eventually, Haier and Lenovo became the China's household brands names rooted in the United States.

Furthermore, China has a significant positive impact on the banking and financial sector, infrastructures as well as aids and welfare of the developing countries. Contradictory, China's investment has brought an insignificant impact toward the developed countries in term of the same sectors. When compared to other developing countries, China's banking and financial sectors are more effective and efficient than other developing countries. China's banks started to involve or to invest in the developing countries' bank by providing capital and technical supports. However, in the developed countries, their banking and financial sectors are stronger than China in which China's outward FDI has minimal impact on these sectors. In the past few decades or in the current day, the infrastructures level and the domestic

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

510

welfare of the developing countries are still relatively low in which could be the drawback on the economy development despite the involvement of foreign helps. Infrastructure development and welfare enhancement required huge amount of capital together with high technology which are the constraint for the developing countries especially insufficient funding. Therefore, China plays an important role in this scenario to provide capital and technology as well as sending specialist to the developing countries to improve on their infrastructures level and welfare. With these upgrading in the standard, it could lead to increment the productivity level of these developing countries, thus helps to increase the living standard and resident welfare indirectly as well. For example, China provides medical support and sending their doctor to improve the medical level and building a number of schools with well-trained teachers to improve the education level. On the other hand, China's outward FDI might not have any significant impact on the financial market and infrastructure level of the developed countries as infrastructure level and domestic welfare of these countries are well-developed and even better than China itself.

In the result above, it shows that China's outward FDI has a significant positive impact on both developed countries and developing countries. In general, researchers (Cueruo-Cazurra & Genc, 2008) showed that for the developing home countries firms which investing in other developing countries might have better advantages due to previous experience in a similar environment from home countries development. However, the study of Cueruo-Cazurra & Genc is not relevant to be a case study for China because China has the largest market, huge population, massive trade surplus which is not similar to other developing countries' situation. The results of this study found out that the impact of developed countries is greater than on developing countries.

In summary, both developing countries and developed countries were significantly impacted by China's outward FDI positively with a greater impact across developed countries. Although greater, volume of job opportunity created in developing countries as compare to developed, those employees across the developed countries are more skilful and mainly involved in high level production with higher margin of income leading to a greater impact on their economic growth. In contrast for the developing countries, their employees are more or less of poorer skill level which mainly involved in labor intensive or lower level of production which have lesser impact toward their economic growth. Besides, developed countries can fully utilize the China FDI to rebuild their economy more effectively and efficiently due to their advanced financial systems, infrastructures and government policy. On the other hand, developing countries allocated the fund in the other way such as improving on the poor financial market, low infrastructure and etc. Thus, this might limited the impact of the China FDI on development of the countries. Nonetheless, one of the important aims of China's outward FDI is to seek for the advancement of technology from developed countries. Therefore, China's outward FDI might not be solely seeking for profit from developed countries but continuously reinvest on it. Meanwhile in developing countries, China's firms mainly shifted to gain resource from developing countries which deviated from their main objective of China FDI thus they focus on the developing countries.

Conclusion and policy implementation

Although China became an important contributor in global outward FDI, yet throughout the years there are limited studies and researches done on China's outward FDI thus there is no consistent results on the impact of China's outward FDI. The aim of the study is to fulfill the gap of the effect of China's outward FDI on economic. Besides, China's outward FDI has been listed as one of the share of GDP indicator, developing and developed countries started to obtain the huge inflow of China's outward FDI. This indicator is an important factor toward developing and developed countries' economies being host countries in which China's outward FDI has a significant positive impact on their economy development by different means such as domestic productivity enhancement, technology transfer, job opportunities creation, infrastructures improvement and others. Moreover, this study found that the impact of the China's outward FDI on developed countries is larger than developing countries in which there is less research on it. .

Few the past few decases, the developed countries supplied most of the global FDI while the remaining small portion contributed by the developing countries only as most of the developing countries are the recipients of the FDI. However, the situation has changed recently. As the FDI of developing countries increased modestly while the outward FDI of developed countries were decreasing. The large

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

511

portion of FDI amongst the developing countries is from China due to strong economic growth and the high trade surplus. Although China's FDI is relative low as compared to other large developed countries, yet policy makers shall focus more on China's FDI as this FDI is a new player in the global market and has the huge potential to keep growing in the future thus become one of the important sources of FDI for host countries.

Even though it is very important for host countries to increase their domestic resources of finance, they should not depend solely on these resources. Instead, they should attract more FDI inflow. Nevertheless, since China's FDI is quite new in the global market, they should be careful in dealing with the presence of China's outward FDI.

In order for countries to improve or to enhance on their economies, they should absorb or attract more of China's outward FDI. Based on the analyses reported, it has strengthened the objective made in previous chapters in which recipient countries would benefit more from China's outward FDI inflow. Based on the evidence given, these studies could give raise to a conclusion that China's outward FDI plays an important role in the economic development of the host country. For all the policy makers, indeed this information is crucial in helping them to deal with China's outward FDI in ways that could help their countries to create opportunity for greater growth. In fact, the growth importance of China in the global economy makes it even more important to inquire further into the impact of China's outward FDI on growth.

Developing and developed countries might also be benefited from China's outward FDI in different ways due to different income levels. For developing countries, policy makers are advised to shift China's outward FDI into two ways to improve their economies to be more feasible in their economic growth. Firstly, it is preferably for the developing countries to allocate China's outward FDI into the labor intensive production which brought job creation, productivity improvement and infrastructure improvement. Secondly, developing countries also involved in high level productions which are strongly dependent on technology, capital, funding, etc. from China to developing countries. On the other hand, policy makers of developed countries preferably to shift China's outward FDI into a more productive way such as secure domestic firms from bankruptcy, productivity enhancement and job creation. Therefore, policy makers could foresee and pre-plan to utilize China's outward FDI by transferring the FDI into productive sector which could enhance the impact on the economy of host country.

Reference

AMERICAN CHAMBER of COMMERCE in SHANGHAI (2010). Chinese FDI in the U.S. Causes, Case Studies and the Future.

Amighini, A., and Franco, C. (2011). A sectoral perspective on Chinese outward FDI: The automotive sector, SEMeQ WP No.3, Department of Economics and Quantitative Methods, Università del Piemonte Orientale, Novara (Italy).

Bin, X., and Wang, J. (2000). Trade FDI and International Technology Diffusion. *Journal of Economic Integration*, 15, 585–601.

Chee, Y.L. (2006). China: Doubles aid and investment to Africa. *Third World Network*. Retrieved from http://www.twnside.org.sg/title2/finance/twninfofinance010.htm

Cross, A.R., and Voss, H. (2008). Chinese direct investment in the United Kingdom: An assessment of motivations and competitiveness.

De Mello, L.R. (1997). Foreign Direct Investment in developing countries and growth: A Selective Survey. *The Journal of Development Studies*, 34(1), 1-34

Deng, P. (2003). Foreign direct investment by transnationals from emerging countries: the case of China. *Journal of Leadership and Organizational Studies,* 10(2): 113–124.

Deng, P. (2004). Outward investment by Chinese MNCs: Motivations and implications.*Business Horizons*, 47(3), 8-16 emerging markets.

Findlay, R. (1978). Relative Backwardness, Direct Foreign Investment, and the Transfer of Knowledge: A Simple Dynamic Model. *Quarterly Journal of Economics*, 62, 1-16.

Fung K.C., Garcia-Herrero, A., Iizaka, H., and Siu, A. (2005). Hard or Soft? Institutional Reforms and Infrastructure Spending as Determinants of Foreign Direct Investment

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

512

Gaulier, G., Lemoine, F., and Ünal-Kezenci, D. (2005). China's integration in East Asia: Production sharing, FDI and high-tech trade. CEPII Paper.

Glass, A.J., and Saggi, K. (1999). FDI Policies under Shared Factor Markets. *Journal of International Economics*, 49, 309-32.

Hu, A.G.Z., Jefferson, G.H., and Jinchang, Q. (2005). RandD and Technology Transfer:Firm-Level Evidence from Chinese Industry. *Review of Economics and Statistics*,87, 780-96.

Keller, W. (2004). International Technology Diffusion. *Journal of Economic Literature*,42, 752-82.

Kubny, J., Mölders, F., & Nunnenkamp, P. (2008). Regional integration and FDI in emerging markets. *Kiel Working Paper 1418, Kiel Institute for the World Economy, Kiel.*

Kubny, J., and Voss, H. (2010). The impact of Chinese outward investment: Evidence from Cambodia and Vietnam. German Development Institute, Discussion Paper No. 16/2010.

Lemoine, F., and Ünal-Kesenci, D. (2004). Assembly trade and technology transfer: The case of China. *World Development*, 32(5), 829–850.

Liu, H., and Li, K. (2002). Strategic implications of emerging Chinese multinationals: the Haier case study. *European Management Journal*, 20(6): 699–706.

Liu, L., and Tian, Y. (2008). The internationalizations of Chinese enterprises: the analysis of the UK case. *International Journal of Technology and Globalization*, 4(1), 87-102.

Long, G. (2005). China's Policies on FDI: Review and Evaluation, in Moran, T.H., Graham, E.M. and Blomström, M. (eds) Does Foreign Direct Investment Promote Development? Washington: *Institute for International Economics.*

Pietrobelli, C., Rabellotti, R., and Sanfilippo, M. (2010). The Marco Polo effect: Chinese FDI in Italy. *International Economics Programme Paper No. 4, Chatham House, London.*

Ricardo, D. (1817). On the Principles of Political Economy and Taxation. *London: JohnMurray.*

Rosen, D.H., and Hanemann, T. (2011). An American Open Door? Maximizing theBenefits of Chinese Foreign Direct Investment. *Center on US-China Relations, Asia Society.* Retrieved from http://asiasociety.org/files/pdf/AnAmericanOpenDoor_FINAL.pdf

Schüler-Zhou, Y., and Schüller, M. (2009). The Decision-making Autonomy in Chinese Overseas Subsidiairies: The German Case. *Working paper, GIGA Institute of Asia Studies*, Hamburg.

Taylor, R. (2002). Globalization strategies of Chinese companies: current developments and future prospects. *Asian Business and Management,* 1(2), 209-225.

UNCTAD (2003). World Investment Report 2003: FDI Policies for Development. *New York-Geneva: United Nations.*

Warner, M., Hong, N.S., and Xu, X. (2004). Late Development Experience and the Evolution of Transnational Firms in the People's Republic of China. *Asia Pacific Business Review,* 10, 324-345.

Wong, J., and Chan, S. (2003). China's outward direct investment: expanding worldwide, China. *An International Journal,* 1(2), 273-301.

World Bank (1993). The East Asian Miracle-Economic Growth and Public Policy. *New York: Oxford University Press.*

Zhang K.S. (2006) Journals of the African Trip. *Observation and Reflection.*

Zhang, Y., and Filippov, S. (2009). Internationalization of Chinese firms in Europe. UNU-Merit Working Paper Series N. 2009-041.

Zhao, H. (2013). China's FDI into Southeast Asia. ISEAS Perspective, No. 8. Singapore: Institute of Southeast Asian Studies. Retrieved from www.iseas.edu.sg/documents/publication/ISEAS%20Perspective%202013_8.pdf.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

513

The Impact Of Goods And Services Tax (GST) On Household Consumption Patterns In Malaysia

Lau Lin Sea, Ching Suet Ling, Choong Chee Keong

Universiti Tunku Abdul Rahman, Malaysia, lauls@utar.edu.my

Universiti Tunku Abdul Rahman, Malaysia, chingsl@utar.edu.my

Universiti Tunku Abdul Rahman, Malaysia, choongck@utar.edu.my

Abstract

Malaysia is currently on the verge of implementing goods and services tax (GST) following the footsteps of more than 160 countries around the world. The introduction of GST by the government has created worries among the general public on how could the new tax system influence the prices of goods and services. With GST, it is predicted that some goods and services may experience price hike while for others, prices may remain unchanged or even decrease depending on the tax rate imposed. Thus, its subsequent implementation in the near future is expected to affect and alter the spending behaviour of households in Malaysia. This study aims to develop a theoretical framework in investigating the effect of GST on the patterns of Malaysian household consumption. Specifically, it aims to examine how consumer behaviour changes in terms of both composition and volume for goods and services due to the introduction of GST.

Keywords: household consumption, goods and services tax, behaviour.

Introduction

Since its first adoption by France in 1954, there has been a remarkable spread of goods and services tax (GST) or value-added tax (VAT) among countries around the world in the last few decades. Up to date, more than 130 countries have introduced and implemented it. One of the main reasons for its rapid spread is that a well designed GST raises more revenue and reduces administrative and business costs as compared to other types of broadly based taxes. Many countries particularly developing nations have considered GST as the key element while carrying out their tax reforms.

First introduced during Budget 2014, the GST, which will substitute the current sales and service tax in Malaysia, is expected to be implemented starting from April 2015. With the introduction of this new tax mechanism, most goods and services become subject to GST equivalent to either 6 percent or zero percent (for zero-rated category) rate of tax. To the government, the GST represents part of its efforts to reduce the budget deficit to approximately 3 percent by 2015 and subsequently achieving a budget surplus by 2020, the year that Malaysia is expected to gain status as a developed nation. It is also believed that the additional income generated through the implementation of GST will be able to reduce government's dependence on direct taxes for revenues. Other than acting as a source to raise revenue, the government is confident that GST will help to enhance the efficiency of the entire tax system by encouraging compliance and reducing administrative costs.

The introduction of GST, however, has led to concerns among Malaysian consumers of whether the new tax system will cause a general rise in the prices of goods and services. With GST, prices of goods and services are expected to vary (increase, decrease or remains unchanged) based on the tax rate imposed. The change in the prices of goods and services will in turn lead to the alteration of household

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

514

consumption behaviour in Malaysia. Based on the econometric and economic findings on Engel curves, it is suggested that change in commodity prices is one of the main factors causing a change in the patterns of household consumption both in terms of expenditure shares and quantity consumed (Dai *et al.*, 2012). Any adjustment in spending behaviour among households can cause a significant impact on the economy as household consumption plays a vital role in stimulating economic growth in Malaysia. As mentioned in the Country Intelligence Report on Malaysia by IHS Global Insights Inc. (2014), Malaysia has experienced high growth rate in household consumption over the past decade whereby the rate of growth surpassed the total GDP growth rate in all years except in 2010. As a result, the share of household consumption in GDP has gradually risen from 45 percent in 2007 to 51 percent in 2013. However, it is obvious that the persistence of robust growth rate in both the private consumption and the overall GDP depends very much on the impact of GST on household consumption. The report also estimated that household finances will most likely be affected negatively at least temporarily with the implementation of GST. Prior to the implementation of GST, to what extent the GST will affect the price level and subsequently the patterns of household spending in Malaysia remains unknown. With this in mind, the main objective of this paper is therefore to examine the impact of GST on the household consumption patterns among Malaysians. The hypothesis and the research questions of this study are identified as follows:

Hypothesis

i)   Hypothesis 1: GST implementation influences the household consumption pattern of Malaysia.
ii)   Hypothesis 2: There are different impacts of GST relative to different income groups.
iii)   Hypothesis 3: A GST tax will affect more on the utility of the poor than the rich.
iv)   Hypothesis 4: There are different impacts of GST on the different product and service categories.

Research Questions

i)   How will GST implementation influence the household consumption pattern of Malaysian?
ii)   Which consumption model is appropriate to reflect the implication of GST implementation   in Malaysia?
iii)   What is the impact of GST implementation relative to different income groups?
iv)   Which product and service categories will be affected most and least after GST implementation?

Many research works have been undertaken on the GST (or value added tax, VAT) in more than 130 countries, but none of them focus on Malaysia, as a single case. However, the government will substitute the current sales and service tax in Malaysia by a more effective GST tax system, which will be implemented starting from 1 April 2015.

Hence, this research takes the first step in studying the effect of GST on the consumption behaviour in Malaysia. The current study will open a new avenue for greater research works in the near future on the importance and benefits of GST being preserved as one of the crucial and effective tax system of Malaysia.

Literature Review

Up to date, a number of researches have been done in studying the determinants for household consumption patterns. Most of the studies have found that factors such as social and demographic changes do play a vital role in affecting spending behaviour of households. On the other hand, the studies on the impact of GST on economic performance particularly on prices of goods and services are common. However, in the context of Malaysia, studies on the factors influencing household spending patterns and the likely consequences of GST on the economy are still limited. To the authors' best knowledge, no study has been done so far examining the impact of GST on household consumption patterns in Malaysia. Thus, this study attempts to fill the gap by providing some observations and analysis of the behavioural change among Malaysian households with regard to their consumption on different categories of goods and services with the introduction of GST.

Factors Affecting Household Consumption Patterns
There are some studies that have examined the impact of various factors (such as demographics and status of employment) on household consumption patterns in Malaysia and in some other countries. Yusof and Duasa (2010), for example, investigate the differences in consumption behaviour among different age groups of employed Malaysians. It is found that consumption patterns do vary based on the age of consumers. The study also discovers that income level is a significant factor affecting total spending as well as expenditure on specific goods or services. Another research on employed Malaysians, by Sheng *et al.* (2008) who focus on food consumption found that income is an important determinant for food consumption patterns in Malaysia. In addition, Ong *et al.* (2008) attempt to figure out the consumption patterns among Malaysian senior citizens who are 55 years or above. Furthermore, a more recent study by Rashid *et al.* (2011) focuses on the impact of post global economic crisis on income and patterns of household expenditure at East Coast of Peninsular Malaysia.

Additionally, numerous empirical studies have examined the impact of different factors (economic and non-economic) on the household spending behaviour in other countries. These studies include Petrovici and Ritson (2000) (on Romania), Maitra and Ranjan (2006) (on South Africa), Bitterncourt *et al.* (2007) (on Japan), and Du and Kamakura (2008) (on United States). For instance, Du and Kamakura (2008) found that the poorest 20 percent of American households would tend to consume more necessities as compared to the richest 20 percent of consumers. The study by Maitra and Ranjan (2006) obtains similar result whereby South African households from rural areas spend a greater share of income on food item than urban households. This study also discovers that as the level of educational attainment increases, households' proportion of income spent on food items drops.

Impact of GST

There are numerous studies that have investigated the effects of GST on various significant economic indicators such as consumer price index (CPI), employment level, GDP and saving. By using Box and Tiao intervention analysis, Valadkhani (2005) examines the impact of GST on the prices of goods and services from 11 groups of CPI basket in Australia. The result shows that there is no significant change in CPI before and after implementation of GST. However, 7 out of the 11 groups of goods and services experience a one-off increase in prices due to GST. In contrast, Benkovskis and Fadejeva (2014) suggest a different result while studying the effect of GST on inflation in Latvia using microdata of consumer price index. The study found that the impact of GST rate changes on consumer price index is strong particularly in the case of upward tax adjustments. In the case of developing countries, studies by Tait (1988, 1990) who survey 36 countries (both developed and developing) conclude that the GST has no significant impact on price level in most of the developing countries studied. In four developing countries, however, GST does cause a one-off increase in price level. The study also found that in another three developing countries with existing inflationary pressures, GST leads to accelerating general price level. According to Narayanan (2014), as a developing nation, the impact of GST on prices of goods and services of Malaysia will most likely resemble the experience of other developing countries. The author further concludes that GST may cause an inflation or merely one-time price increase depending very much on the degree of existing inflationary pressures faced by the economy.

In addition, a recent study by Huang and Liu (2013) about the impact of GST on mortgage costs in Australia using t-tests and multivariate regression analysis indicates that mortgage costs increase substantially after the imposition of GST. Further, it is also found from the study that mortgage corporations start to increase the mortgage costs before and continue to do it after the implementation of GST, showing that the increase in mortgage cost is not a one-off phenomenon. The impact of GST on other economic variables can also be seen in the study by Manente and Zanette (2010). The study examines the effects of a reduction (from 10 percent to 5 percent) in VAT rate on Italian sectors of 'hotels and restaurants', and its implication on the total employment level. The results indicate that the reduction in GST has successfully created 100,000 full time jobs throughout the country, whereby 38 percent of these jobs come from the 'hotels and restaurant' sector.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

516

Research Methodology

As GST will only be implemented in Malaysia next year, the data required for the development of an econometric model to assess the impact of GST on the patterns of household consumption is not available. Therefore, the use of secondary data in the analysis at this stage seems impossible. Due to this, a questionnaire survey will be conducted to collect primary data for the purpose of this study. The questionnaire will be divided into three sections with questions asking for the awareness and perception of GST in the first part, followed by questions of household consumption and finally on the socio-economic background of the respondents. Some questions are graded on Likert-type scales ranging from 1 to 5 for feedback from the respondents. The sample size will be 800-1,000 as this is a comfortable respondent size in eliciting GST in Malaysia.

Structural equation modeling (SEM)

Structural equations modeling (SEM) is used as the inferential analysis technique in this study. SEM is chosen based on two main reasons. First, SEM can examine a variety of interrelationships among constructs simultaneously, including the direct and indirect relationships (Hair et al., 2010). Therefore, SEM is selected to estimate the parameters and test the hypothesized relationships of the structural model of FDI and its macroeconomic and microeconomic determinants at once.

Second, as opposed to multiple linear regression, SEM is more appropriate for this study. This is because all the constructs of interest are conceptualized as being multidimensional in nature and the existence of a correlation between disturbance terms is very likely. As the assumption of uncorrelated error terms is very crucial in the regression analysis, SEM is used in this study so that the variables and disturbance terms can be effectively modeled. SEM will be performed using Analysis of Moment Structures (AMOS) version 7.0 by SPSS or Partial Least Square (PLS).

Conclusion

GST/VAT is not a new tax concept as many nations practice this tax structure, which was invented since 1950s (Royal Malaysian Customs Department, 2014). As the implementation date of GST in Malaysia will be drawing close, the Malaysian general public surely will feel the burden and still be skeptical as they are yet to see the real impact of this new tax structure on their spending or on their consumption patterns. Not surprisingly, all consumers will expect to pay more taxes based on consumption as the coverage of the tax will be broader. Based on past experiences of other developing countries, GST caused an inflation or one time price increase in the early stage of implementation. It may also lead to accelerating general price level, depending on situation.

Moreover, impact of GST on household consumption will indeed impact on the overall GDP as Malaysia has experienced a rise in growth rate as a result of a higher share of household consumption. It is hoped that the findings of this research will be able to provide more relevant information for the government, policy makers and all stakeholders to work out complementary strategies or to refine a better GST structure to bring about a more sustainable economic growth in the long term.

This study will be timely as it will provide more insightful data on the pattern or consumption behaviour of Malaysian households with the implementation of GST in the early stage and post GST era.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

517

References

Benkovskis, K., & Fadejeva, L. (2014). The effect of VAT rate on inflation in Latvia: evidence from CPI microdata. *Applied Economics*, 46(12), 2520-2533.

Bitterncourt, M. V. L., Teratvanat, R. P., & Chern, W. S. (2007). *Food consumption and demographics in Japan: Implications for an Aging Population.* Working Paper Series, Department of Economics, Universidade Federal do Parana.

Dai, H., Masui, T., Matsuoka, Y., & Fujimori, S. (2012). The impacts of China's household consumption expenditure patterns on energy demand and carbon emissions towards 2050. *Energy Policy*, 50(2012), 736-750.

Du, R. Y., & Kamakura, W. A. (2008). Where did all the money go? Understanding how consumers allocate their consumption budget. *Journal of Marketing*, December, 109-131.

IHS Global Insight Inc. (2014). Country Intelligence Report- Malaysia

Huang, A., & Liu, B. (2013). The impact of the goods and services tax on mortgage costs: evidence from Australian mortgage corporations. *International Journal of Financial Research*, 4 (1), 54-65.

Maitra, P., & Ranjan, R. (2006). Household expenditure patterns and resource pooling: evidence of changes in post-apartheid South Africa. *Review of Economics of the Household*, 4, 325-347.

Manente, M., & Zanette, M. (2010). Macroeconomic effects of VAT reduction in the Italian hotels and restaurants industry, *Economic System Research*, 22(4), 407-425.

Narayanan, S. (2014). The impact of the goods and services tax (GST) in Malaysia: Lessons from experiences elsewhere. *The Singapore Economic Review*, 59(2).

Ong, F. S., Kitchen, J.P., & Jama, A. T. (2008). Consumption patterns and silver marketing: an analysis of older consumers in Malaysia. *Marketing Intellegence & Planning*, 26(7), 682-698.

Petrovici, D. A., & Ritson, C. (2000). Food consumption patterns in Romania. *British Food Journal*, 102(4), 290-307.

Rashid, N. K. A., Nasir, A., Nik Mustapha, N. H., & Kamil, N. F. (2011). Analysis of income and expenditure of households in the east coast of Peninsular Malaysia. *Journal of Global Business and Economics*, 2(1).

**Royal Malaysian Customs Department, Malaysia Goods and Services Tax (GST) official website. Available at: http://gst.customs.gov.my/en/Pages/default.aspx., accessed 7 August, 2014.

Sheng, T. S., Shamsudin, M. N., Mohamed, Z., Abdullah, A. M., Radam, A. (2008). A complete demand system of food in Malaysia. *The Icfai University Journal of Agricultural Economics*, 5(3), 17-29.

Tait, A.A. (1988). *Value added tax: International practice and problems*. Washington D. C.: International Monetary Fund.

Tait , A.A. (1990). *VAT policy issues*. Paper prepared for the IMF/UNDP seminar on value added tax in Asia and resource mobilization, Jakarta, Indonesia, March 13-16.

Valadkhani, A. (2005). Goods and service tax effects on goods and services included in the consumer price index basket. *The Economic Record*, 81(255), 104-114.

Yusof, S. A., & Duasa, J. (2010). Consumption patterns and income elasticity in Malaysia. *Malaysian Journal of Economic Studies*, 47(2), 91-106.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

518

Impact of swiftlet farming relocation from urban to agriculture land in West Malaysia

Kok Hong Tan[a], Fah Choy Chia[b] , Han.Kiat Alan Ong[c]

[a]*Universiti Tunku Abdul Rahman, Setapak, Kuala Lumpur, Malaysia , Email : khtan@utar.edu,my*

[b]*Universiti Tunku Abdul Rahman, Setapak, Kuala Lumpur, Malaysia , Email : chiafc@utar.edu,my*

[c] *Universiti Tunku Abdul Rahman, Sg. Long, Selangor, Malaysia, Email : onghk@utar.edu.my*

Abstract

In a past decade, swiftlet farming in West Malaysia has become one of key contributor to Malaysia agriculture sector. However, a new bylaw "Rearing of Swiftlet and Manufacturing of Swiftlets' Nest By-Laws 2013" imposed by Selangor State Government stated that all existing farmers operating in business premises will be given a grace period of 3 years started from 1st January, 2014 to relocate to agriculture land. These new bylaw has threaten the livelihood of the swiftlet farmers, especially those in urban and suburban area. In this study we chronicle review the swiftlet farm in West Malaysia. We studied the environmental and economical impact of swiftlet farms in a selected town. We conducted interview among swiftlet farm owners to understand the preference of urban area and suburban area over the agriculture area as farm location. Through the observation and analysis, we discovered the preference of urban and suburban location over agriculture area merely as a result of economical consideration. We suggested more investigation on the impact of relocation process from urban area to agriculture area. A further comprehensive study on the growth rate of swiftlet farms at agriculture area is required to mitigate the impact of swiftlet migration.

Keywords: swiftlet, swiftlet farm, bird nest, swiftlet farm migration

Introduction

Edible bird's nest (EBN) is a precious functional food and therapeutic herbal medicine that has been consumed for several hundred years in China. It is known as the "Caviar of the East" (Marcone, 2005) in Chinese communities around the world. EBN mainly comprises a secretion of the salivary gland of several species of Aerodramus genus (formally collocallia) (Gray, 1840) in the Apodidae family, such as Aerodramus fuciphagus and Aerodramus maximus. These birds are found predominately in Southeast Asia region such as Thailand, Vietnam, Indonesia, Malaysia and Phillipines (Marcone, 2005).

Generally, the edible-nest swiftlets are cave dwellers and their nesting area are usually inaccessible for human and located in dim to completely dark sites in limestone caves. They are widespread in the Indian Ocean, South and South East Asia, North Australia and the Pacific Islands (Thomassen,Wiersema,Bakker,Knijff,Hetebrij,& Povel, 2003) with Indonesia as the biggest and the Malaysia Borneo provinces of Sarawak and Sabah being the second biggest resource (Hobbs, 2004).

As the traditional cave environment become too congested and incapable to accommodate the growth of swiftlet's population, urban dwellers in Indonesia, Malaysia and Thailand had discovered that by converting the upper floor of their shophouse, the swiftlet would nest in this build environment (Ibrahim,Teo, & Baharun, 2009).

The development in Malaysia only started after the Asian Economic Crisis of 1997-1998. During that period, many commercial building left vacant by closure of many small and medium enterprises.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

519

Instead of letting the premises unoccupied, quite a numbers of landlords choose to convert their vacant shophouses to swiftlet farm even those it is restricted and forbidden in certain states of Malaysia (Ibrahim,Teo, & Baharun, 2009).

A new bylaw "Rearing of Swiftlet and Manufacturing of Swiftlets' Nest By-Laws 2013" stated that all existing farmers operating in business premises will be given a grace period of 3 years started from 1st January, 2014. They will be given incentives in the form of a five-year-waiver on licensing fees, land taxes and assessment fees, on the condition that they move to agricultural area within the stipulated period of their licenses (Lim, 2013).

Urban swiftlet farming would face stiff challenge in coming year when they fail to comply with the guideline. It is mandatory to study the relocation impact of existing urban swiftlet farms to agriculture land before the expiry of grace period.

Objectives

This research tends to look into the issues from different perspectives. The objectives are twofold, first to justify the economy and social impact of swiftlet farming by drawing a comparison between the swiftlet farm in urban area and agriculture land. The research will focus on the rationale of swiftlet farming development in urban area by chronicle review of urban swiftlet farming in West Malaysia.

Secondly, it is necessary to find a solution to mitigate the impacts of relocating existing swiftlet farms from urban area to agriculture area.

Background Study

Urban versus rural area

In Malaysia, most of the swiftlet farms are located either at urban area or suburban area mainly as the result of swiftlet farming started during the downturn of Asian economic crisis in 1997-1998 as stated above (Ibrahim,Teo, & Baharun, 2009). Another reason as anticipated by the farm owners, town centre is highly populated with buildings and traffics that preventing swiftlet's predators such as eagle and owl from looming and hunting around the area. Heat island effects at urban and suburban area also maintaining more stable temperature with small temperature fluctuation as compare to more drastic change at agriculture area. Through the interview, most of the swiftlet farm owners confirm, they prefer to invest in urban or suburban area because they could rented out the ground floor premise to generate income during the initial period. In addition, the premises could convert back into commercial entities in case of failure. However, the investment at agriculture area will remain abundant with slim possibility of cost recovery.

Determine Criteria

The most importance factors that determine the success of the swiftlet farm could be lead to two keys criteria. Similar to any animals, the criteria of survival for swiftlets species are food and reproduction.

External Factors

The most ideal location should be within 20 kilometres of the sea and on low-lying land where temperature and humidity are moderately high. Before the actual construction of swiftlet farm, the owners should assess the surrounding location by identify the potential food source and any threat that may effected the operation of swiftlet farms. Swiftlet are extremely sensitive to smell, therefore, location that nearby polluted area such as heavy industrial or treatment plants should be evaded.

Apart from food sources, surviving from prey of predators such as owl and eagle are top priority of swiftlet in selecting of their nesting place. Swiftlet farming in urban and suburban area continue to

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

520

illustrate the higher growth of swiftlet's population as compare to the agriculture area. In fact, swiftlet colonies prefer to dwell within the human premises as compare to agriculture area that are subject to the prey from their predators.

Other threat may come from rats, geckos or blood sucking mites that prey on the newly born chicks (Mardiastuti, Mulyani, & Gulton,1997).Consistency of maintenance or pest control is essential.

Male swiftlets began their nest building when they found comfort and security with the new environment. Man made farms that mimic the natural environment of the limestone cave become an importance factors contributing to the success of farm design.

Internal Factors

The internal environment that suitable for swiftlet habitual similarly to limestone cave ambiance is the important factors for swiftlet breeding. The key factors are air temperature, mean radiant temperature, air velocity, relative humidity and light intensity. The temperature suitable for this habitat is between 25℃-30℃ (Kuan & Lee, 2005 and Onn, 2008).If the temperature is above 30℃, the saliva dried up and causes the nest to shrink. But if the temperature is too cold (below 25℃), the saliva will not harden causing difficulties in nest development.

Relative humidity should be between 80 to 90% to provide appropriate breeding environment and stimulate natural cave's micro-habitat environment. If the relative humidity is below 80%, the shape of the nest would be affected, as the nest is drier and the stickiness is lesser, the nest would be thinner and easily shatter. Apparently, if the relative humidity is too high, the nest will be yellowish in color and downgrade the value of the nest (Kuan & Lee, 2005 and Ibrahim,Teo,& Baharun, 2009).

The factors that have to be considered in constructing swiftlet farms are the lighting condition must not be more than 1 lux (Onn, 2008). One of the gifting of swiftlets is the ability to echolocate in the dim and darkness of limestone cave (Price, Johnson,& Clayton, 2004). Therefore, such ability should be taking into consideration in swiftlet farm design. To swiftlet, darkness means safety to their nestling.

Adequate sound within the swiftlet farms able to loop in and attract the swiftlets into the farms. When the young swiftlets able to find secure in the new habitat, they may visit more frequently and eventually dwell in permanently.

Upon satisfactory of the above three main factors of food, security and comfort, male swiftlets would construct the nest by using saliva and attach to the vertical wooden batten made from "Melanti " wood species. The intervals of the wooden batten need to space out adequately to ensure sufficient breeding space for individual swiftlets. According to farming owner, failure to provide suitable spacing could lead to the fighting within the colony. Widening of spacing may also result the loss of valuable space to accommodate more nestling.

Generally, most of the swiftlet farms that located at urban area did not generate much objection or resentment from neighbourhood. The obvious source of disturbance from swiftlet farm is the tweeting sound facing the external wall. However, only the farm owners that did not comply with the guideline by local authorities would create unnecessary impact to community.

Through the observation at various location, the smells from the swiftlet's guano are not noticeable as the premises has very little penetration or opening to the external.

Methodology

In this research, two swiftlet farms located at Mantakad, Pahang are chosen in which one represented a typical shophouse swiftlet farm at urban area and another one as a standalone swiftlet farm at agriculture area. Both of the farms are 10 kilometer apart and constructed during the same years.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

521

Since both swiftlet farms belong to the same owners, the data obtain has certain consistency and accuracy.   We have cross check the internal perimeter and conclude that both farms have similar design layout.

Observation

All the information in this research is collected through interview and on site observation. The information was compare and analyses from the perspective of economic, functionality, environmental impact and sustainability.

Risk of investment

Through the few interviews that conducted among the swiftlet farm owners and consultants, one of the obvious risks in swiftlet farming was the low successful rate (Estimated at 30%). In order to reduce the risk of investment, most of the investors would choose to invest in urban area as the cost recovery are much higher as compare to agriculture area. Table 1 below illustrates the economy impact comparison between two swiftlet farms of urban area and agriculture area at Mentakad, Pahang.

Criteria	Swiftlet farm at urban area	Swiftlet Farm at agriculture area
Type	20' x 80' 2 storey shophouse	30' x 80' 3 storey freestanding farm
Area	3200 sq. ft	7,200 sq.ft
Construction cost	800,000 (Building) + 80,000 (Renovation) = RM 880,000	400,000 (Building + Renovation) + 100,000 (1 acre of land) = RM 500,000
Unit price	RM 275/ sq. ft	RM 69.50/ sq. ft
Failure rate	70%	70%
Cost recovery	RM 800,000	RM 100,000
Total loss upon failure	RM 80,000	RM 400,000

Table 1 – Economy impact comparison between urban and agriculture area swiftlet farm

Even thought the investment in agriculture land has higher return on investment as compare to urban or suburban farms, but the risk of investment are higher as compare to urban farms. Table 2 below illustrates the estimated swiftlet farming values with assumption of equal growth rate after one year period. The valuation was based on the market value in year 2010.

Assumption of growth after 1 year	Swiftlet farm at urban area	Swiftlet Farm at agriculture land
Number of bird nest	500 nests	500 nests
Estimated value	500 x RM 1,000/nest = RM 500,000.00	500 x RM 1,000/nest = RM 500,000.00

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

522

Property cost	RM 880,000.00	RM 500,000.00
Total farm value	RM 1,380,000.00	RM 1,000,000.00
Return on investment	56.8%	100%

Table 2 – Return of investment upon the sale of swiftlet farms (data in year 2010)

The cost of constructions in urban area remains higher as the building subject to building code and regulation according to human usage. It is more cost effective at agriculture area as the usage can custom-made to its function (Figure 1). One of the most obvious different was the penetration requirement. Most of the window and access point in urban farms have to be conceal in minimizing the heat transfer and air exchange rate.

	Urban Swiftlet Farm	**Agriculture area Swiftlet Farm**
External View		
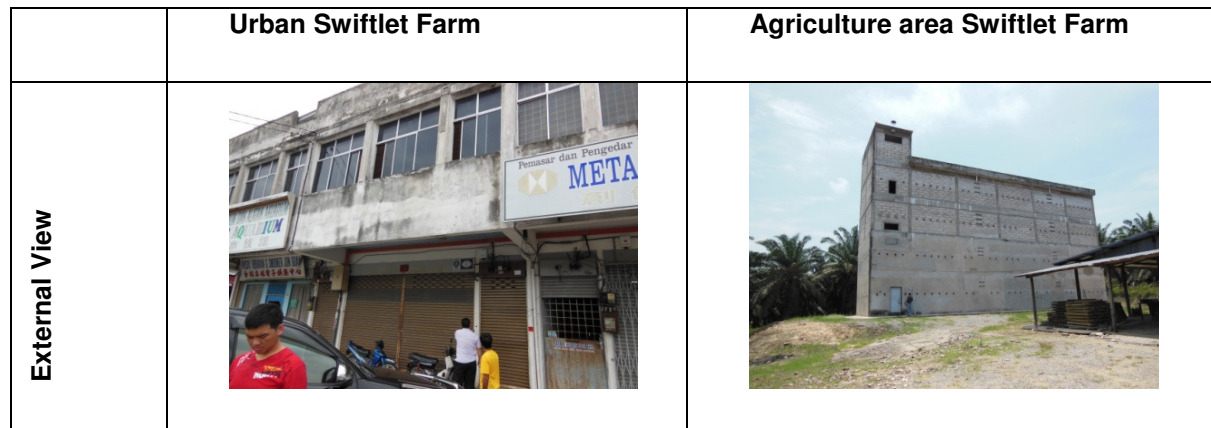
Figure 1. External View and environment of case study swiftlet farm

The duration of normal urban farm renovation only require 3 months period to complete as compare to agriculture farm that may take up to 8 months for completion. Apart from the economy impact, we also need to look into long term sustainability and environmental impact. Agriculture swiftlet farming has edge over urban farming on long term sustainability and environmental impact to community.

Environmental Impact and Sustainability

Another setback of urban and suburban farming is the environmental impact such as noise pollution generated by the tweeting sound constantly disturbing the lifestyle of community. The close proximity of the urban swiftlet farms has indirectly competed with each other to attract more swiftlets into their farms by raising their tweeting speakers. Agriculture farming may not bring much of the impact as it is buffered by the plantation or greenery.

Urban or suburban farming may reach its peak upon scarcity of food. Due to close proximity, the cluster of farms may compete for survival and growth rate could eventually slow down.

Effective use of space and ergonomic

Owing to building code and bylaw requirement, urban swiftlet farms converted from commercial property may have some utility or service areas that are not fully utilized. Some of the high ceiling areas may not be accessible for harvesting of nest (Figure 2). Therefore, the wastage of area may further reduce the income. The ceiling height at commercial shop-house mostly maintain at 2.8 to 3 meter, whereas agriculture swiftlet farm was around 2.2 to 2.4 meter which save on construction cost and easier for nest harvesting. In term of ergonomic and functionality of space, agriculture farm design have edge over the urban farm.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

523

	Urban Swiftlet Farm	Agriculture area Swiftlet Farm
Internal View		
Entry Design		

Figure 2. Internal view and design of case study swiftlet farm

Most of urban or suburban farm may reaching its peak not as a result of growth rate but owing to the over populated swiftlets without any room for expansion. However, the agriculture farm could easily expand to surrounding open area. The flexibility to alter or accommodate the modification is one of the advantages in agriculture area.

SWOT analysis

Through the SWOT analysis, we identify the opportunity and key area of improvement. Overall observations could be summaries as below Table 3.

	Urban Swiftlet Farm	Agriculture Swiftlet Farm
Strength	Low initial investment	Higher return upon sale
	Smaller losses upon failure	Higher utilisation of space
	Faster renovation period	Accommodate to future growth
Weakness	Incompetent of expansion	Longer construction period

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

524

	Inaccessible utility or service area	
	Noise pollution to surrounding	Higher losses upon failure
Opportunity	Easily converted back to business premises	Incentives and support from authorities
Threat	Least favorable from authorities	May attract predators or thief
	Indirect competition due to close proximity	Abundant entity upon failure

Table 3 – SWOT analysis between urban and agriculture swiftlet farms

From the analysis, we discovered the preference of urban and suburban location over agriculture area merely as a result of economical consideration. The concerns are the cost recovery due to the high failure rate, longer construction period and abundant of investment upon failure in agriculture farms.

Recommendation

From the Rearing of Swiftlet and Manufacturing of Swiftlets' Nest By-Laws 2013 stated that all urban or suburban swiftlet farms been given a grace period of 3 years started from 1st January, 2014 (Lim, 2013).

The impacts of sudden closure of all swiftlet farms in urban or suburban areas may results a massive migration of swiftlets seeking new habitation and affected the growing stability.

In order to lower the risk, it is recommended to shift the swiftlet farms that are closer to agriculture land as first priorities (Figure.3- red arrow). Once the new swiftlet farms stabilise and reaching constant growth, the next stage would be relocation of the urban area swiftlet farms. (Figure 3- yellow arrow).

The location of newly construct swiftlet farms also need to be in line with the master plan of city or township planning. This would prevent agriculture area that earmark for swiftlet farms not encroach by the expansion of township in future.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

525
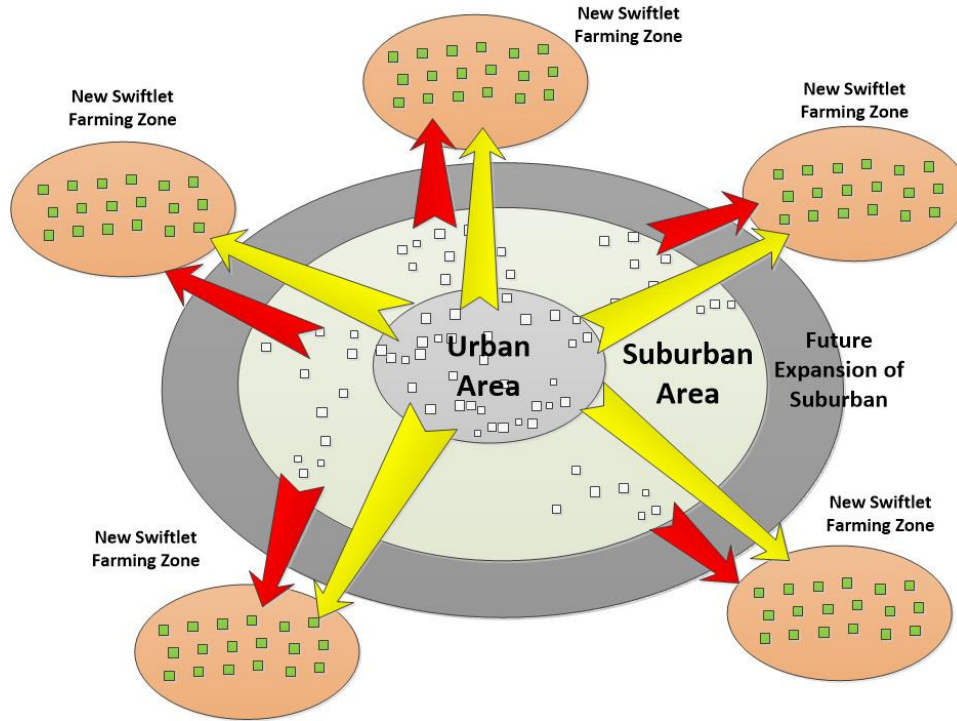
Figure 3 – Relocation of existing swiftlet farms from urban and suburban area to agriculture land.

The local authorities also need to assist in control the proximity and concentration of swiftlet farms in particular areas. Due to close proximity, swiftlet colony tends to looming in and out of difference farms. And this would create a direct competition between the farms owners to louder their tweeting sound speakers and unnecessary generating noise pollution.

To ensure the long term sustainability of swiftlet farming, it is essential for a new bylaw to protect the natural resources which is the food sources of this species. Any polluted industry need to be evade within the zone that earmark for swiftlet farms.

Conclusion

This is the intention of this research to reduce the risk and increase on the successful rate of swiftlet farming relocation from urban areas to agriculture area. The following are the proposal for further research:

Module design

Swiftlet farm that could expand according to future demand should be the primary design criteria to cater to the growth of the swiftlet colony. The module design should capable of duplication in mass production. It would able to reduce the set up period and substantial control on the investment cost.

Mobility

The module design should be detachable, easy to dismantle and reassemble at other location. This mobility may reduce the risk of investment and ensure cost recovery. With the mobility of the module design, the next consideration would be the materials and construction system.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

526

Lightweight and sustainability

The material of module design should be lightweight and durable for easy relocation. A self sufficient and self contain module that capable of stimulating suitable environment. This module should have a monitoring system that capable of controlling humility, sound, ventilation and temperature according to external climatic factors.

A further comprehensive study of the growth rate at newly relocated swiftlet farm is mandatory to mitigate the impact of swiftlet migration.

References

Gray, G.R. (1840). *A list of the genera of birds, with an indication of the typical species of each genus.*Richard and John E. Taylor: London.

Hobbs, J.J. (2004). Problems in the harvest of edible bird's nests in Sarawak and Sabah, Malaysian Borneo. *Biodiversity and Conservation* ,13(12), 2209-2226

Ibrahim,S.H., Teo,W.C., & Baharun,A. (2009). A study on suitable habitat for Swiftlet Farming, Universiti Malaysia Sarawak, Malaysia 1.

Kuan,H., & Lee,J. (2005). *Swiftlet Farming - The Complete Introductory Guide to Swiftlet Farming.* Penang : Struan Inc. Sdn. Bhd.

Lim, C.W. (2013,Nov 29). Selangor state government to issue licence for swiftlet farming, *The Star*, Retrieved from The Star website: http://www.thestar.com.my/News/Community/2013/11/29/State-to-issue-licence-for-swiftlet-farming/

Marcone, M.F. (2005). Characterization of the edible bird's nest the "Caviar of the East". *Food research international,* 38, 1125–1134

Mardiastuti,A., Mulyani,Y.A.,& Gulton,T.A.C. (1997). Breeding success of Edible-nest Swiftlets in a man made nesting habitat. *Media Konservasi 2* , 81-83

Onn, T.W. (2008). Construction and Management of Swiftlet farm, Retrieved from crystal swiftlets online website : http://www.crystalswiftlets.com/cs5.html

Price,J.J., Johnson,P.K.,& Clayton,H.D.(2004). The evolution of echolocation in swiftlets. *Journal of Avian Biology*, 35: 135–143. doi: 10.1111/j.0908-8857.2004.03182.x

Thomassen,H.A., Wiersema,A.T., Bakker,M.A.G., Knijff,P., Hetebrij, E., & Povel, G.D.E.(2003). A new phylogeny of swiftlets (Aves: Apodidae) based on cytochrome-b DNA. *Molecular Phylogenetics and Evolution 1*, 86–93.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

527

The role of tourism in the linkage between CO_2 emission, energy consumption and economic growth: Evidence from the G-20 countries

Cheong-Fatt Ng[a], Chee-Keong Choong[a], Lin-Sea Lau[a]

[a]*Department of Economics, Faculty of Business and Finance, University Tunku Abdul Rahman (Perak Campus), Jalan University, Bandar Barat,31900 Kampar, Perak Darul Ridzuan, Malaysia.*

Abstract

This study aims to find out the role of tourism in affecting the relationship between CO_2 emission, energy consumption and economic growth. By using annual data from 1995 to 2010, a total of 40 countries in the G-20 group are included in the analysis. A panel Generalized Method of Moment (GMM) is used for estimation and analysis. The results indicate that more energy consumption leads to more CO_2 emission. Also, the Environmental Kuznets Curve (EKC) hypothesis is supported. The most important finding in this study is the role of tourism. The GMM results show that whether tourism has a positive or negative effect on CO_2 emission depends on the usage of energy in tourism sector. This implies possibility of using tourism to reduce CO_2 emission and included in CO_2 emission reduction policy like the Kyoto Protocol. In other word, energy efficiency in tourism sector and energy relevant policy in tourism is able to keep CO_2 emission down and at the same time, maintain sustainable economic growth.

Keywords: Tourism, EKC, Economic growth, Energy consumption, GMM

Introduction

The concern on the issue of global warming has been growing rapidly especially in the recent decade. Global warming often relates to climate change which means an increase in overall temperature. According to a recent summary on the current climate change by the World Meteorological Organization (WMO), the global average temperature is estimated to have risen by 0.6^{o} C over the course of 20th century. It is added that 2001-2010 was the warmest decade and 2010 was the warmest year on record since the beginning of modern monitoring of global temperature (WMO, 2013).

Besides, the United Nations Framework Convention on Climate Change (UNFCCC) projected that the average temperature of the Earth will go up by 1.8^{o} C to 4° C by 2100 if no action is taken. At that time, about 20-30% of plants and animal suffer from the risk of extinction. This implies potential food crisis if no action is taken to counter this global warming and climate change.

From the facts above, the issue of global warming started to draw attention from the environmentalists and practitioners. It has been identified that greenhouse gases (GHG) are the main cause of global warming and climate change. Among the GHG, carbon dioxide (CO_2) is the major contributor. To reduce the emission of GHG, Kyoto Protocol was adopted in 1997 to commit the members by setting international target of emission reduction. However, some countries still recorded a positive change in CO_2 emission compared with previous years.

An ideal situation would be achieving sustainable economic growth while minimizing the emission of CO_2. This is exactly what the academicians and policy makers wish to achieve. Thus, this study tends

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

528

to examine the relationship between CO_2 emission, energy consumption and economic growth with an additional variable, tourism.

In this study, the panel version of Generalized Method of Moments (GMM) is used to examine the relationship between CO_2 emission, energy consumption, economic growth and tourism for a panel of G-20 major economies in the world, by using annual data from 1995 to 2010.

The G-20 Countries

The G-20 consists of members from the G-8 (Japan, Russia, Germany, France, United Kingdom, Italy, United States, and Canada), BRICS (Brazil, Russia, India, China, and South Africa), OECD or Organization for Economic Cooperation and Development (Japan, Germany, France, United Kingdom, Italy, United States, Canada, South Korea, Turkey, Mexico, and Australia), European Union (28 Europe countries), Argentina, Indonesia, and Saudi Arabia.

In the Pittsburgh summit in 2009, the G-20 leaders announced that the group will replace the G-8 as the main economic council of wealthy nations. Besides, the BRIC (Brazil, Russia, China, and India) are emerging economies in the G-20 that should not be underestimated. Sachs (2003) proposed that the BRIC economies would surpass the G-6 (United States, Japan, Germany, France, Italy, and the United Kingdom) in less than 40 years and become a larger force in the world economy. By 2025, the BRIC could account for over half of the size of the G-6. Along with the rapid development in economy, emission also rose steeply over the past decade.

Other than the BRIC, the EU also experienced steady increase in CO_2 emission with average growth rate of 6% for the period from 1990 to 2008 (Boden, Marland, & Andres, 2011). As a whole, the G-20 countries accounted 90% of the global economy, 66% of total population in the world, and also 84% of the world's total fossil fuel emissions.

Table 1 summarizes the data of G-20 countries in GDP, tourism receipts, CO_2 emission and energy use in 2010. From the data, only 9 countries recorded lower CO_2 emission than the world average in 2010. The 9 countries are Argentina, Brazil, India, Indonesia, Mexico, Croatia, Latvia, Lithuania, and Romania. Luxembourg is the top CO_2 emitter in the panel with 21.36 metric ton per capita in 2010 while India is the lowest with 1.66 metric ton per capita. As a whole, the G-20 countries' CO_2 emissions are almost double compared with the world average in 2010.

In term of economic growth, the G-20 countries' GDP per capita are 3 times of the world in 2010. For EU, G-8, and OECD, their GDP per capita are higher than the world. Only BRIC contributes roughly half of the world average GDP per capita. Despite the contribution of only half of the world average GDP per capita, the BRIC's CO_2 emission is higher than the world average. Though other groups' (EU, G-8 and OECD) GDP per capita are higher than the world average, there are still concerns on their "emission for development" patterns especially the G-8 which is the highest among the group.

Almost all the countries in the G-20 have high level of energy consumption measured in kg of oil equivalent. It is believed that the combustion of fossil fuel has direct linkage with increased CO_2 emission. Thus, several measures such as improving energy efficiency and development of renewable energy (such as biofuel) have become major discussion in Kyoto Protocol, IEA and etc.

For the tourism indicator, tourism receipts per capita, the EU's performance is outstanding compared with others. As pointed out by Lee and Brahmasrene (2013), the EU's tourism industry has become a key sector in its economy and has negative impact on CO_2 emission. If this found to be true in this study, other countries (BRIC, G-8, and OECD) can put in extra effort to take EU as reference in tourism-related policy to deal with the problem of CO_2 emission without affecting the growth of economy, or if possible, boost economy at the same time.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

529

Thus, from the above point of view, it is worth to analyze the G-20 countries as the group represents the world wealthiest nations. Besides, due to the pressure on reducing their CO_2 emissions, the role of tourism is considered in affecting the relationship between CO_2 emission, economic growth and energy consumption in this study.

Table 1 Summary statistics of the G-20 countries, 2010

Country	GDP per capita[1]	Tourism receipts[2]	CO_2 emission[3]	Energy consumption[4]
Argentina[#]	9133.00	139.42	4.47	1935.94
Australia	36202.84	1465.46	16.90	5552.25
Brazil	5618.32	31.65	2.15	1362.05
Canada	35277.26	537.03	14.62	7354.74
China[*]	2869.09	37.49	6.19	1881.37
France[*]	33898.38	865.46	5.55	4015.87
Germany[*]	36127.04	600.73	9.11	4032.54
India	1034.24	11.74	1.66	600.30
Indonesia	1570.15	31.65	1.80	877.92
Italy[*]	29163.14	662.29	6.71	2814.63
Japan	36472.84	120.48	9.18	3915.96
Mexico	8117.35	107.28	3.76	1517.76
Russia	6385.66	92.97	12.22	4932.20
Saudi Arabia[#]	15994.78	276.46	17.03	7043.84
South Africa	5794.23	206.19	9.20	2846.30
South Korea	20625.09	279.39	11.48	5058.96
Turkey	7833.52	343.56	4.13	1457.39
United Kingdom[*]	37899.31	654.33	7.92	3241.12
United States	43952.44	533.89	17.56	7162.35
European Union				
Austria	38803.23	2494.82	7.97	4079.75
Belgium	36742.01	1066.85	9.99	5588.69
Bulgaria	4378.87	535.55	5.93	2375.44
Croatia	10475.64	1868.57	4.72	1938.45
Cyprus	23156.53	2148.25	6.98	2213.09
Czech Republic	14112.90	762.08	10.62	4186.64
Denmark	46379.66	1028.17	8.34	3480.25
Estonia	10369.83	1053.60	13.68	4154.52
Finland	38064.65	840.89	11.53	6792.27
Greece	21310.18	1112.44	7.66	2442.21
Hungary	10926.46	633.79	5.05	2566.70
Ireland[#]	46214.95	1829.76	8.93	3177.94
Latvia	6923.88	430.10	3.40	2074.18
Lithuania	8320.17	333.75	4.12	2145.53
Luxembourg	80276.01	8087.53	21.36	8324.24
Malta	15992.43	3021.67	6.22	2038.59
Netherland	41110.24	1124.86	10.95	5020.99
Poland	10035.85	261.52	8.30	2659.21
Portugal	18535.13	1219.19	4.92	2213.02
Romania	5233.16	76.07	3.67	1634.05
Slovakia	14161.79	430.01	6.64	3283.10
Slovenia	19054.25	1328.23	7.48	3529.42
Spain	25595.99	1281.54	5.85	2772.86
Sweden	42825.66	1419.89	5.59	5471.79
Consolidated				
Mean (G-19+EU)	22394.60	962.47	8.17	3529.45
Mean (BRIC)	3976.82	43.46	5.55	2193.98

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

530

Mean (EU)	25931.69	1327.56	7.82	3509.53
Mean (OECD)	29597.20	560.90	9.72	4193.05
Mean (G-8)	32397.00	508.39	10.35	4683.67
World average	7519.10	161.82	4.90	1880.60

[1]GDP per capita (constant 2005 U.S.$) [2]Tourism receipts per capita (current U.S.$) [3]$CO_2$ emission per capita (metric ton) [4]Energy consumption per capita (kg of oil equivalent)

[*]France, Germany, Italy and United Kingdom are also members of the EU. Thus, G-20 consists of 43 countries if EU is counted separately. All data are retrieved from the World Development Indicator, World Bank. The means of the groups are own estimations.
[#]Argentina, Ireland and Saudi Arabia consists of incomplete data set. To maintain the stability of data set, the 3 countries are omitted from this study.

Literature Review

The early strand of literatures which relates CO_2 emission and economic growth relies on the Environmental Kuznets Curve (EKC) hypothesis. The EKC hypothesis was originated from Kuznets (1955) in which an inverted-U shape relationship was found between income and income inequality. This inverted-U shape relationship sooner applied in the field of environmental economics and known as the EKC. Starting from the pioneering work by Grossman and Krueger (1991), many literatures followed their effort in estimating the functional form and validity of this EKC hypothesis. As a result, different functional form was identified (see Shafik, 1994; Robert & Grimes, 1997; Friedl & Getzner, 2003).

However, this line of research was being criticized for the direction of causality. It is conceivable that causation could flow from emission to economic growth, or even bidirectional causation. Also, most of the studies consist of only two variables which may suffer from omitted variable bias (Lean & Smyth, 2010).

Recent studies started to address the above issues by including additional variables into the studies and adopting the time series Granger causality approach. The most common variable added into the analysis is energy consumption (see Ang, 2007, 2008; Zhang & Cheng, 2009). Other variables added include foreign trade (Halicioglu, 2009; Jalil & Mahmud, 2009; Nasir & Rehman, 2011), total employment (Soytas & Sari, 2009), labor and capital (Menyah & Wolde-Rufael, 2010).

The results from the studies involve energy consumption as additional variable have contradictory policy implications. For example, Soytas and Sari (2009) found unidirectional Granger causality running from energy consumption to CO_2 emission, while Halicioglu (2009) found bidirectional Granger causality between economic growth and CO_2 emission. These findings indicate that an energy conservation policy to reduce CO_2 emission may eventually handicap the growth of an economy.

On the other hand, the role of tourism in affecting economic growth and CO_2 emission is considered a new area of research. Lee and Brahmasrene (2013) found that tourism has a positive impact on economic growth, but a negative effect on CO_2 emission. This implies that tourism can be used to integrate the CO_2 emission, economic growth, and energy relevant policy to reduce the emission of CO_2 and maintain sustainable economic growth at the same time.

Previous studies have found that tourism has positive effects on the country's economic growth. Those studies include Albalate and Bel (2010) and Holzner (2011) for the EU countries, Hall (1998) for the Eastern Europe, Falk (2010) for Austria, and Bernini (2009) for Italy. They propose a tourism-led economic growth hypothesis which assumes tourism to be a major determinant in overall economic growth.

Specifically, the tourists' visit and spending on the goods and services can create income, taxes, foreign currency, as well as job opportunities (Choi & Sirakaya, 2006; Dwyer & Forsyth, 2008). This is consistent with Archer (1995) and West (1993) where they found that tourism is a prime source of foreign exchange earnings and generates export revenues.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

531

The study by Mihalic (2002) pointed out several advantages of using tourism as a growth strategy compared to the export of goods and services. Following this, it is reported that many countries have started to focus in tourism development for the purpose of economic growth (Sahli & Nowak, 2007).

Similarly, Lee and Chang (2008) also reported that the development of tourism not only stimulates the growth of a particular sector, but triggers overall economic growth at the same time. In brief, the literature discussed above substantiate that tourism positively affects the output growth of an economy.

As many studies above found that tourism can boost economic growth, there is a possibility to include tourism in energy-growth policy to reduce CO_2 emission and at the same time, achieve sustainable economic growth. Thus, this study aims to find out the role of tourism in this relationship.

Data and Methodology

Data and model specification

Based on the EKC hypothesis and previous findings, it is plausible to formulate the following relationship:

$$CO_2 = f(GDP, GDP^2, EC, T)$$
$$\quad\quad + \quad\quad - \quad\quad + \quad -/+$$

The expected sign of GDP and GDP square is positive and negative according to the EKC hypothesis. Energy consumption is expected to be positive as more energy used results in higher CO_2 emission. Tourism is expected to be negative based on the findings by Lee and Brahmasrene (2013). However, there is still emission from the vehicles used to transport tourists from one destination to another. Hence, this study aims to find out the role of tourism in this relationship.

The relationship can be expressed into following model:

$$C = \beta_0 + \beta_1 GDP + \beta_2 GDP^2 + \beta_3 EC + \beta_4 T + \varepsilon \quad\quad\quad (1)$$

To better investigate the role of tourism in CO_2 emission, specifically on how energy is used in tourism sector, an interaction term of energy consumption and tourism is added into the analysis. The model can be represented by the following model:

$$C = \beta_0 + \beta_1 GDP + \beta_2 GDP^2 + \beta_3 EC + \beta_4 T + \beta_5 ECXT + \varepsilon \quad\quad (2)$$

C is CO_2 emission (measured in metric tons per capita), EC is energy consumption (measured in kg of oil equivalent per capita), GDP and GDP squared are measured in constant 2005 U.S.$ per capita, T is the indicator for tourism (measured in international tourism receipts per capita in current U.S.$) and ε is the regression error term. β_0, β_1, β_2, β_3, β_4 and β_5 are intercept and parameters to be estimated. All variables are in natural logarithm form for econometric analysis. The data is collected for all G20 countries from 1995 to 2010. To enhance the robustness, the EU is counted as separate countries. Thus, the total number of countries in this study is 40 (refer table 1). The data is retrieved from the World Development Indicators (WDI), World Bank.

Panel Generalized Method of Moment (GMM)

This study uses panel GMM to estimate equation 1 and 2 which is a different approach from previous literatures. Equation 2 is transformed into the following dynamic panel model according to Arellano and Bond (1991):

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

532

Where i and t are panel transformation represent time period and cross sectional unit respectively; α is a parameter reflecting the speed of convergence; is a period-specific effect common for all countries; captures the unobserved country-specific effect, and is the white noise disturbance term.

Equation 3 then can be simplified as follow:

Where ; is a set of independent variables consist of GDP, GDP^2, energy consumption, tourism, and the interaction term with associated parameter, β.

According to Arellano and Bond (1991), there is a strong autoregressive structure in the disturbance term. To deal with this problem, this effect can be taken into consideration by assuming that , where , is a white noise disturbance term. After rearrangement, equation (4) becomes:

First differences are needed to eliminate the country specific effect. From equation (5), the lagged difference in the dependent variable may result in endogeneity of the independent variables, X. A number of studies have neglected the consistency problem from the simultaneous presence of the country specific effect and the lagged dependent variable or any regressor that are correlated with this country specific effect (Caselli et al., 1996). This would be the case if equation (4) is estimated using fixed or random effect models.

Blundell and Bond (1998) argued that the persistence in the explanatory variables may adversely affect the small sample and asymptotic properties of the difference estimator. Hence, the difference estimator is further combined with an estimator in levels to solve this problem.

To deal with this econometric problem, Arellano and Bond (1991) proposed the use of instrumental variables. The first step is to eliminate the period specific effect, , by subtracting its cross average in period, t, from each variable. Then, the variables transformed into first differences to get rid of the individual effect are as follow:

Arellano and Bond (1991) proposed estimating equation (6) with GMM using lagged level of endogenous variables as instruments. By doing this, the disturbance term is not serially correlated and the levels of the explanatory variables are weakly exogenous. In other word, they are not correlated with future error term.

Next, the following moment conditions are used to estimate the difference estimator:

The above moment conditions have two important properties. First, the disturbance term is not serially correlated. Second, there may be correlation between the levels of explanatory variables and the country specific error term, but there is no correlation between difference in the explanatory variables and the disturbance term. The results yield the stationarity properties (Choong et al., 2010).

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

533

The additional moment conditions for the regression in levels are:

In short, the GMM system estimator is obtained by using the moment conditions from equation (7) to (10).

Results and Interpretations

The results from the panel GMM are summarized in Table 2. First, energy consumption is found to be significant and positive. This is reasonable as more energy consumption results in greater CO_2 emission due to the direct combustion of fossil fuel. This result matches previous findings by Acaravci and Ozturk (2010), Pao and Tsai (2011), Jalil and Mahmud (2009). The GMM estimates that 1% increase in energy consumption would lead to an increase in CO_2 emission by 1.18% (1.02% for eq. (2)).

For economic growth, the GMM results support the EKC hypothesis. GDP is found to be significant and positive whereas GDP^2 is found to be significant and negative. This postulates an inverted-U shape relationship as stated in the EKC hypothesis. This finding is in line with Jalil and Mahmud (2009), Acaravci and Ozturk (2010). In term of long run elasticity, 1% increase in GDP increases CO_2 emission by 0.92% (1.29% for eq. (2)).

Turn to the role of tourism, eq. (1) shows that tourism has a positive and significant impact on CO_2 emission. This is normal because emission from vehicles (air planes, cars and other transports) used in tourism sector is unavoidable. However, when the interaction is added into the model, the interaction is significant and positive. Most importantly, the interaction is able to transform the positive effect of tourism into a negative one. This indicates that how energy is used in tourism sector has great influence on CO_2 emission. This finding is ought to be useful in policy making for reducing environmental degradation and achieving sustainable economic growth. Without the interaction term, 1% increase in tourism increases CO_2 emission by 0.01%. When the interaction term is considered, 1% increase in tourism can reduce CO_2 emission by 0.2%.

Summarizing the results from GMM, it can be concluded that: First, energy consumption has a positive effect on CO_2 emission. Second, the results support the EKC hypothesis where there is an inverted-U shape relationship between economic growth and CO_2 emission. Next, tourism has a positive effect on CO_2 emission. However, the interaction term of energy consumption and tourism is able to transform the positive effect into a negative effect. More detail explanation regarding the implication of this finding in policy making is on the next chapter.

Table 2 Panel GMM estimates

Independent variable	GMM	
	Eq. (1)	Eq. (2)
$CO2(-1)$	0.13***	0.13***
	(0.000)	(0.000)
EC	1.18***	1.02***
	(0.000)	(0.000)
GDP	0.92***	1.29***
	(0.000)	(0.000)
GDP^2	-0.06***	-0.08***
	(0.000)	(0.000)
T	0.01**	-0.20***
	(0.016)	(0.000)
ECXT		0.03***
		(0.000)
S.E. of regression	0.037	0.037

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

534

Notes: Dependent variable is CO_2 emission. For GMM, White period instrument weighing method is used. Effect specification is based on cross section fixed (first difference). The figures without bracket indicate the coefficient estimates while the figures in brackets show the probability value. *, **, *** represent the coefficient is significant at 10%, 5%, and 1% respectively.

Conclusion and Policy Implication

To determine the role of tourism in the relationship between energy consumption, economic growth and CO_2 emission, this study uses annual data of 40 countries in the G-20 major economies from 1995 to 2010. The panel GMM finds that energy consumption leads to an increase in CO_2 emission. Also, the validity of the EKC hypothesis is supported. What is more important is the role of tourism which is also the objective of this study.

The panel GMM indicates that tourism increases CO_2 emission in the beginning. According to a study by the United Nations World Tourism Organization (UNWTO), United Nations Environment Program (UNEP), and the World Meteorological Organization (WMO), this is normal because the emission is mainly come from the vehicle used in the tourism sector to transport tourist from one destination to another (UNWTO-UNEP-WMO, 2008).

When the interaction is added, it can be observed that the interaction term is significant and positive. Also, it can turn the positive effect of tourism on CO_2 emission into a negative one. This means that whether tourism has a positive or negative effect on CO_2 emission depends on how energy is used in tourism sector. In other word, energy efficiency especially in tourism sector plays an important role in reducing CO_2 emission.

According to the report by UNWTO, WMO, and UNEP mentioned above, biofuel and the change in tourist patterns and policies can help to reduce CO_2 emission from tourism sector. The potential of biofuel in reducing CO_2 emission is further supported by the report by the International Energy Agency (IEA, 2012).

For the tourist patterns and policies, the steps include transport modal shift, the choice of closer destinations, spending on goods and services with favorable eco-efficiency, and increase in the length of stay. However these measures are highly dependent on the initiative within the industry, as well as incentive and regulatory from outside the sector. The shift in transport modal refers to the reduction on the dependence on air travel as it generates most tourism related emission. The reduction of air travel does not indicate the reduction in total tourist trips, but choosing other alternative such as car, rail, and coach travel (Scott, Peeters, & Gossling, 2010).

With this direction of promoting low carbon economy (tourist patterns and policies), lower emissions technology implementation (biofuel), replacing old and inefficient aircrafts, better flight and load management and etc, tourism can be used to reduce CO_2 emission without sacrificing economic growth compared to energy conservation policy. The results in this study match with the hypothesis and finding by Lee and Brahmasrene (2013).

In conclusion, this study finds that the role of tourism in affecting CO_2 emission varies with the use of energy in tourism sector. Therefore, tourism should be considered in CO_2 emission reduction policy such as Kyoto Protocol with the steps and measures discussed above.

References

Acaravci, A., & Ozturk, I. (2010). On the relationship between energy consumption, CO_2 emission and economic growth in Europe. *Energy, 35*, 5412-5420.

Albalate, D., & Bel, G. (2010). Tourism and urban public transport: Holding demand pressure under supply constraint. *Tourism Management, 31(3),* 425-433.

Ang, J. B. (2007). CO_2 emissions, energy consumption, and output in France. *Energy Policy, 35,* 4772-4778.

Ang, J. B. (2008). Economic development, pollutant emissions and energy consumption in Malaysia. *Journal of Policy Modeling, 30*, 271-278.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

535

Archer, B. (1995). Importance of tourism for the economy of Bermuda. *Annals of Tourism Research, 22(4),* 918-930.

Arellano, M., & Bond, S. (1991). Some test of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies, 58*, 277-297.

Bernini, C. (2009). Convention industry and destination clusters: Evidence from Italy. *Tourism Management, 30(6),* 878-889.

Blundell, R., & Bond, S. (1998). Initial conditions and moments restrictions in dynamic panel data model. *Journal of Econometrics, 87*, 115-143.

Boden, T. A., Marland, G., & Andres, R. J. (2011). *Global, regional, and national fossil fuel CO_2 emissions.* Oak Ridge, TN: Carbon Dioxide Information Analysis Center. http://dx.doi.org/10.3334/CDIAC/00001_V2011.

Caselli, F., Esquivel, G., & Lefort, F. (1996). Reopening the convergence debate: a new look at cross country growth empirics. *Journal of Economic Growth, 1*, 363-389.

Choi, H. C., & Sirakaya, E. (2006). Sustainability indicators for managing community tourism. *Tourism Management, 27(6),* 1274-1289.

Choong, C. K., Ahmad, Z. B., Zulkornain, Y., & Muzafar, S. H. (2010). Private capital flow, stock market and economic growth in developed and developing countries: A comparative analysis. *Japan and the World Economy, 22*, 107-117.

Dwyer, L., & Forsyth, P. (2008). Economic measures of tourism yield: What markets to target? *International Journal of Tourism Research, 10(2),* 155-168.

Falk, M. (2010). A dynamic panel data analysis of snow depth and winter tourism. *Tourism Management, 31(6)*, 912-924.

Friedl, B., & Getzner, M. (2003). Determinants of CO_2 emission in a small open economy. *Ecological Economics, 45*, 133-148.

Grossman, G. M., & Krueger, A. B. (1991). *Environmental impacts of a North Amarican Free Trade Agreement.* National Bureau of Economic Research Working Paper 3914, NBER, Cambridge MA.

Halicioglu, F. (2009). An econometric study of CO_2 emission, energy consumption, income and foreign trade in Turkey. *Energy Policy 37(3),* 1156-1164.

Hall, D. R. (1998). Tourism development and sustainability issues in Central and Southern Europe. *Tourism Management, 19(5),* 423-431.

Holzner, M. (2011). Tourism and economic growth: The beach disease? *Tourism Management, 32 (4),* 922-933.

International Energy Agency. (2012). *CO_2 emissions from fuel combustion.* Paris, France.

Jalil, A., & Mahmud, S. F. (2009). Environmental Kuznets Curve for CO_2 emission: A cointegration analysis. *Energy Policy, 37,* 5167-5172.

Kuznets, S. (1955). Economic growth and income inequality. *American Economic Review, 49,* 1-28.

Lean, H. H., & Smyth, R. (2010). CO_2 emission, electricity consumption and output in ASEAN. *Applied Energy, 87,* 1858-1864.

Lee, C. C., & Chang, C. P. (2008). Tourism development and economic growth: A closer look at panels. *Tourism Management, 29(1),* 180-192.

Lee, J. W., & Brahmasrene, T. (2013). Investigating the influence of tourism on economic growth and carbon emissions: Evidence from panel analysis of the European Union. *Tourism Management, 38,* 69-76.

Menyah, K., & Wolde-Rufael, Y. (2010). Energy consumption, pollutant emissions and economic growth in South Africa. *Energy Economics, 32*, 1374-1382.

Mihalic, T. (2002). Tourism and economic growth issues. In R. Sharply, & D. J. Telfer (Eds.). *Tourism and Development: Concepts and Issues,* 81-111.

Nasir, M., & Rehman, F. (2011). Environmental Kuznets Curve for carbon emissions in Pakistan: An empirical investigation. *Energy Policy, 39,* 1857-1864.

Pao, H. T., Yu, H. C., & Yang, Y. H. (2011). Modeling the CO_2 emissions, energy use and economic growth in Russia. *Energy, 36,* 5094-5100.

Roberts, J. T., & Grimes, P. E. (1997). Carbon intensity and economic development 1962-1991: A brief exploration of the Environmental Kuznets Curve. *World Development, 25*, 191-198.

Sachs, G. (2003). Dreaming with BRICs: The path to 2050. *Global Economics Paper, 99.*

Sahli, M., & Nowak, J. J. (2007). Does inbound tourism benefit developing countries? A trade theoretic approach. *Journal of Travel Research, 45(4),* 426-434.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

536

Scott, D., Peeters, P., & Gossling, S. (2010). Can tourism deliver its "aspirational" greenhouse gas emission reduction targets? *Journal of Sustainable Tourism, 18(3),* 393-408.

Shafik, N. (1994). Economic development and environmental quality: An econometric analysis. *Oxford Economics Paper, 46*, 757-773.

Soytas, U., & Sari, R. (2009). Energy consumption, economic growth, and carbon emissions: Challenges faced by an EU candidate member. *Ecological Economics, 68,* 1667-1675.

UNWTO-UNEP-WMO. (2008). *Climate change and tourism: Responding to global challenges.* Madrid: UNWTO.

West, G. R. (1993). Economic significance of tourism in Queensland. *Annals of Tourism Research, 20(3),* 490-504.

World Meteorological Organization. (2013). *A summary of current climate change findings and figures.* Switzerland.

Zhang, X. P., & Cheng, X. M. (2009). Energy consumption, carbon emissions, and economic growth in China. *Ecological Economics, 68(10),* 2706-2712.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

537

The Impact of Minimum Wage from the Malaysian Employees' Perspective

Lee Kwee Fah[a], Yeong Wai Mun[b], Chung Chay Yoke[c], Low Mei Peng[d], Ung Leng Yean[e], Shamini Kandasamy[f], Jayamalathi Jayabalan[g], Pok Wei Fong[h]

[a]*Universiti Tunku Abdul Rahman, Malaysia, leekf@utar.edu.my*

[b]*Universiti Tunku Abdul Rahman, Malaysia, yeongwm@utar.edu.my*

[c]*Universiti Tunku Abdul Rahman, Malaysia, chungcy@utar.edu.my*

[d]*Universiti Tunku Abdul Rahman, Malaysia, lowmp@utar.edu.my*

[e]*Universiti Tunku Abdul Rahman, Malaysia, ungly@utar.edu.my*

[f]*Universiti Tunku Abdul Rahman, Malaysia, shamini@utar.edu.my*

[g]*Universiti Tunku Abdul Rahman, Malaysia, jayamalathi@utar.edu.my*

[h]*Universiti Tunku Abdul Rahman, Malaysia, pokwf@utar.edu.my*

Abstract

The implementation of minimum wage has far reaching consequences from an employee perspective. Experience from other countries indicates a number of issues which affect employees. As minimum wage has been recently introduced in Malaysia, this study seeks to investigate the impact of minimum wage from an employee perspective in terms of job morale, turnover intention, job demand, and benefits. Survey method was used to measure the perceptions of two groups of employees namely those receiving and not receiving minimum wage, before and after the implementation of minimum wage in their respective work place. Overall, the findings indicate that there are significant differences in the changes in perceptions of job morale, turnover intention, and job demand between the two groups of employees. However, there are no significant changes in benefits. These findings serve as a guide to employers in managing relationships with their workers.

Keywords: minimum wage, employees, job morale, turnover intention, job demand

Introduction

Malaysia has achieved significant economic and social progress in the past decades. Malaysia is moving toward a new economic model in line with the ever changing world economy landscape. The formation of a new economic model is meant to facilitate the transformation of Malaysia economy into a high-income nation for sustainable economic growth. In response, the Economic Transformation Programme (ETP) which represents a marked change in its approach to build on the Tenth Malaysia Plan, minimum wage policy is recommended by the National Wage Consultative Council (NWCC). Malaysia implemented a minimum wage policy on the 1st of January 2013, thereby joining more than 150 other countries that already have minimum wage laws in place. The policy sets a minimum wage of RM900 per month (RM4.33 per hour) for Peninsular Malaysia and RM800 per month (RM3.85 per hour) for Sabah, Sarawak and the Federal Territory of Labuan, covering both the local and foreign workforce, except for domestic workers such as domestic helpers and gardeners (MOHR, 2014).

The aim of the minimum wage is to alleviate labour market distortions and maximise the efficiency of labour usage in the economy. When wages are artificially suppressed below productivity

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

538

levels, it would lead to low labour participation rates in the economy, as workers have less incentive to take part in the labour market. Second, the low income workers will be able to maintain a decent standard of living without unduly limiting the flexibility of employers to allow Malaysia to remain competitive at the global level. From a macroeconomic perspective, the increase in wages would also raise consumption and support domestic demand, as low-income groups tend to have a higher marginal propensity to consume.

Third, consistent with the Government's objective of transforming Malaysia into a high-income and high productivity economy, the minimum wage policy provides incentives to both firms and workers to undertake productivity-enhancing measures. As the relative cost between capital and labour narrows, firms may be encouraged to invest in automation and newer technologies that could enhance production capacity, rather than rely on low-cost foreign labour. Firms may also be motivated to provide training to enhance the skills and productivity of their employees. With lower reliance on low-cost unskilled labour, firms may in turn be encouraged to move up the value chain to be more competitive. For workers, the greater availability of jobs with higher wages and the potential for the acquisition of higher skills would encourage increased participation in industries that were previously avoided. These changes would facilitate the transformation of Malaysia into a high value-added, high-income economy.

The implementation of Minimum Wage has thereon generated multifaceted issues in business sectors involving the employers and employees. This paper aims to look into the impact of minimum wage from the two groups of employees, i.e., those who are affected and those who are not affected with the minimum wage policy. The investigation is expanded to the group of employees who are affected, on the part of their perception changes, before and after the implementation of minimum wage in their respective work place on job morale, turnover intention and job demand.

Much research has been conducted in the past on minimum wage. Most of these research are at the macroeconomic levels such as effects of minimum wage on earning and employment (Dube, Lester, & Reich, 2010), labour market (Flinn, 2006) and national employment (Neumark, Schweitzer & Wascher, 2004). Scant research is found on the employees' perspective in relation to their work-related behavior. As Malaysia has just enforced the implementation of minimum wage policy, an opportunity is created to investigate its impacts towards the employees, particularly on their work-related behavior. Hence, this study seeks to investigate the impact of minimum wage from an employee perspective

Literature Review

Job Morale

Studies based on employee morale started long ago with one conducted by Baehr and Renck (1958). However, till date different researchers still failed to agree on a commonly acceptable view of employee morale. For example, McKnight, Ahmad and Schroeder (2001) view employee morale as 'the degree to which an employee feels good about his/her work and work environment' where else Lindsay, Manning and Petrick (1992) viewed morale to be 'the attitude of an individual, group, or organization about the function or task at hand'. In comparison, morale from the viewpoint of Baehr and Renck (1958) is the commonly shared ideas among the employees that they have about themselves and their work environment. The understanding of morale by Johnsrud (1996, as cited in Johnsrud and Rosser, 2002) bests fit the current study whereby it represent "the level of well-being that an individual or group is experiencing in reference to their work life".

Morale gains in importance since some of the earlier studies indicated that morale is vital in affecting performance (Wesbrook, 1980). In addition, Lindgren (1982) indicates that if people are being recognized as important in their workplace, they will respond by increasing their effectiveness. In another study done in Russia, it shows that performance and work attitudes are affected by the employee's morale (Linz, Good and Huddleston, 2006). Higher level of employee morale will also result in reduced absenteeism and lowering of turnover (Suksawanruedee and Sucaromana, 2013, Khalil, 2013) and other important aspects such as higher job satisfaction, commitment, and pride in one's work which ultimately lead to better organization's performance (Linz, Good and Huddleston, 2006).

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

539

Turnover Intention

According to Jacobs & Roodt (2007), turnover intentions can be described as a mental perception in considerations whether to continue or quit a job, but it differ among employees depending on their tolerance level and perception of the treatment received. Decision whether to quit or stay is a reaction to various external stimuli that affect employees' satisfaction. Cotton & Turttle (1996) refer to the "intention to turnover" as an individual's perceived probability of staying or leaving, and Tett & Meyer (1993) defined it as a conscious and deliberate willfulness to leave the organization.

Perez (2008) states that individuals' turnover intentions always matched their actual turnover behavior, and this further supported in the study by Abii, Ogula & Rose (2013) who cited the studies of Hwang & Kuo (2006), and Hom & Griffeth's, (1992) who further emphasized that turnover intention would lead to actual turnover. Turnover intentions have been recommended as a proxy in measuring actual turnover (Price, 2001; Price & Mueller, 1981).

Nienaber & Maisibigiri (2012) stated that regardless of voluntary or involuntary turnover will result in negative effect such as additional cost and disruption. Bodla & Hameed (2008) also stated that turnover whether due to causes are controllable (organizational factors) including satisfaction on pay and working conditions or uncontrollable (environment factors) will have substantial cost to the organisation as losing of social capital, referred to tacit knowledge that cannot be protected easily against loss or unauthorized transfer (Miller & Shamsie, 1996). A paper by Perez (2008), cited Cascio's (1991) study in which turnover cost were divided into separation cost, replacement cost and training cost. On top of that, additional turnover costs included by Tziner & Birati (1996) were functional cost, dysfunctional cost, and vacancy cost. Later, quality cost was added as skilled workers leave the organization (Abii, Ogula & Rose, 2013). Dess and Shaw (2001) categorize the significant cost into direct cost (replacement, recruitment and selection, temporary staff, management time) and indirect costs (morale, pressure on remaining staff, costs of learning, product/service quality, organisational memory) due to loss of social capital.

The relationship between employees and employers can be referred through the social exchange theory, which is based on the idea that social behavior is the result of an exchange process; the purpose is to maximize benefits and minimize costs. People will terminate or abandon the relationship as soon as the costs outweigh the benefits (or perceived unfairness). Abii et al. (2013) and Chen, Su, Lo, et al. (2013) found that compensation is one of the important variables that influence turnover intention in organization. Compensation can be referred as extrinsic factors (Deci, 1975) representing the tangible factors that can be measured by variables such as wage, benefits, job security and job environments. This value may affect the satisfaction level and eventually may lead to turnover intention and quitting.

Job Demand

Job demand in this study is measuring whether the employees are expected to increase their efficiency to get the job completed after the implementation of minimum wage policy. In any economy, policymakers confront this trade-off between imposing higher wage costs—for example, by introducing or raising a minimum wage—that benefit workers but reduce profits. When labour costs increase, an employer's immediate options are to do nothing and absorb the extra cost, or to reduce the amount of labour employed. On the other hand, changing workers' hours, or the number of workers, is quicker and easier (Hemermesh, 1993). Companies may also react by increasing work hours and reduce the number of employees (Staronline, 2012). In the U.K., Steward and Swaffield (2008) found that minimum wage negatively affected work hours. Basic work hours of low-wage works were reduced by one to two hours per week. Work hours on paid overtime were also reduced but the effect of this was minimal. Shorter work hour means workers are expected to complete their task faster, work harder to get things done in shorter period of work time hence increasing the job demand on the employee.

A study conducted by Alternative Movement and Freedom (AMRF,2012) with the support of the Fair Wear Foundation (FWF), in Bangladesh's garment sector found that 82% of the workers in their industry had their target production increased after the implementation of the minimum wage in 2010.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

540

Managers were able to pressure the workers to meet their target where the wages were paid hourly. Another study by H. Bester et al. (2012) showed that in the short run, the higher the industry's wage rate, the higher the productivity. The higher the labour cost, the higher the job demand to increase productivity by inducing less labour hours.

Benefits

Benefits are a part of total compensation other than pay for time worked given in whole or in part to employees by employers (Milkovich, Newman & Gerhart, 2014, p.16). Unlike direct compensation, benefits include all other inducements and services provided by an employer to employees (BLS, 2005). They may include legally required benefits such as Social Security, and other benefits such as medical insurance, paid leave, retirement plan, housing and transportation allowances. In addition to benefits, there are other non-monetary attributes of employment such as fringe benefits and access to training opportunities (Simon & Kaestner, 2003).

Employee benefits provided by organizations are relevant for business firms to remain competitive in the labour market. Indirect compensation or benefits have a significant role in the attraction and retention of employees. This is especially the case for costly benefits such as health insurance and pension plans. There are lingering concerns among executives about the costs of providing competitive employee benefits (Conference Board, 2007).

In spite of the prominence of benefit issues to employers and employees, surprisingly there is a lack of studies in the human resource management literature on employee benefits (Dulebohn, Molloy, Pichler & Murray 2009). In their seminal paper on employee benefit, Harris and Fink (1994) discussed about the effects of features of benefits on employees' satisfaction with their benefits, which in turn is presumed to affect attitudinal/behavioural outcomes such as turnover intention and organizational commitment. Generally, there is mixed evidence linking benefit satisfaction to attitudinal/behavioural outcomes (see Micelli & Lane,1991; Dreher, Ash & Bretz, 1988; Gerhart & Milkovich 1992, Harris 1993, Lane 1993).

The introduction of minimum wage may potentially impact employee benefits. After a review of the literature, Wilson (2012) concluded that there is a negative effect on employee benefits after the implementation of minimum wage in different countries. In the U.S., the congressional Joint Economic Committee published a major review of 50 years of academic research on the minimum wage in 1995. The study found a wide range of direct and indirect effects of increased minimum wages that may occur including encouraging employers to cut back on fringe benefits. However, in a contradictory U.S. study conducted during the period 1979 to 2000, Simon & Kaestner (2003) found no discernible effect of the minimum wage on fringe benefit generosity for low-skilled workers like employee access to health insurance, dental insurance, vacation pay and training/educational benefits. Elsewhere few such studies have been conducted (Card & Krueger,1995).

Methodology

The current study which uses a quantitative approach employed a self-administered, anonymous survey questionnaire to collect the perceptions of the employees regarding the impact on them due to the implementation of minimum wage policy in Malaysia. The study respondents are employees who are employed in SMEs across seven sectors which comprise of services, primary agriculture, construction, mining and quarrying, manufacturing, manufacturing-related services and agro-based industries.

The sampling method used is quota sampling because it is based on the percentage of the sector as listed in SME Corp. Using this method ensures that the study has covered all the sectors identified under the classification of SME Corp.

In addition, pilot testing was conducted prior to the full testing to ensure the usability of the survey questionnaire. Minor amendments such as rewordings were done to ensure the understandability of the questionnaire by the target respondents. The questionnaire was also translated and back-translated to

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

541

the Malay Language to cater to those that do not understand the English version. Several experts were consulted about the questionnaire to check on the consistency and to ensure the meaning of the languages do not have any discrepancies for both versions of the languages.

Data Analysis

Descriptive analysis

Respondent demographic profile

The demographic profile of the respondents was collected in Part 1 of the questionnaire. The respondents are categorized mainly under six sectors and five employment status.

Table1. Working sectors

Working sector	Percent %
Service	76.34
Primary Agriculture	1.69
Construction	3.82
Mining & Quarrying	0.09
Manufacturing	17.31
Manufacturing-related service	0.75
Total	**100.00**

The highest number of respondents are from the service sector (76.34%), followed by the manufacturing sector (17.31%). Respondents are from other sectors are substantially less.

Table 2. Employment status

Employment status	Percent %
Part timer	20.86
Full timer	73.06
Contract	5.26
Self-employed	0.44
Temporary assignment	0.36
Total	**100.00**

Majority of the respondents are full timers (73.06%), followed by part timers (20.86%), contract workers (5.26%) and self-employed (0.44%) with only a handful being temporary assignment workers (0.36%).

Table 3. Work sector affected by minimum wage (MW) adjustment

Working sector	Receiving MW	Not Receiving Adjustment
Service	80.17	19.83
Primary Agriculture	68.42	31.58
Construction	97.67	2.33
Mining & Quarrying	100.00	0.00
Manufacturing	96.92	3.08
Manufacturing-related service	82.35	17.65

Further investigation of table 3 shows that those are being affected by the minimum wage policy in the service sector is 80.17 percent, primary agriculture sector is 68.42 percent, 97.67 on construction and

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

542

manufacturing 96.92 percent, manufacturing-related service 82.35 percent and in mining sectors 100 percent being affected.

Statistical Analysis

Paired-sample t-tests were employed to examine the change of perceptions of those who receive, and those who do not receive at least minimum wage from various dimensions after the implementation of minimum wage policy. A total of 1,994 respondents participated in this survey. Out of this, majority comprising of 1,653 employees receive at least the minimum wage of RM900. The remainder, 341 respondents do not receive the minimum wage.

The statistical results are presented in the Table 4 and 5. The mean difference is calculated as the after-minus-before rating. "#" indicates the coding of the item is reversed before the calculation of summated score.

Table 4. The change of perceptions of those who do not receive at least minimum wage from various dimensions after the implementation of minimum wage policy

Construct	Item	Mean difference	t	p
Job Morale	My pay is enough to live on comfortably	0.519	8.960	0.000
	I am underpaid for the work that I do#	-0.496	-8.281	0.000
	The company's employee benefit program is satisfactory	-0.372	-7.325	0.000
	Total	0.053	6.604	0.000
Turnover Intention	I often seriously consider leaving my current job	-0.657	-10.726	0.000
	I intend to quit my current job	-0.663	-11.543	0.000
	I have started to look for other jobs	-0.733	-11.112	0.000
	Total	-0.171	-12.393	0.000
Job Demand	How often does your job require you to work very fast?	0.370	7.129	0.000
	How often does your job require you to work very hard?	0.405	7.471	0.000
	How often does your job leave you with little time to get things done?	0.408	7.332	0.000
	How often is there a great deal to be done?	0.381	6.376	0.000
	Total	0.098	8.009	0.000

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

543

Table 5. The change of perceptions of those receiving at least minimum wage from various dimensions after the implementation of minimum wage policy

Constructs	Item	Mean difference	t	p
Job Morale	My pay is enough to live on comfortably	0.511	22.698	0.000
	I am underpaid for the work that I do#	-0.666	-22.575	0.000
	The company's employee benefit program is satisfactory	0.504	21.147	0.000
	Total	0.140		0.000
Turnover Intention	I often seriously consider leaving my current job	0.044	2.324	0.020
	I intend to quit my current job	0.031	1.736	0.083
	I have started to look for other jobs	0.041	2.089	0.037
	Total	0.010	2.250	0.025
Job Demand	How often does your job require you to work very fast?	0.155	11.015	0.000
	How often does your job require you to work very hard?	0.137	9.505	0.000
	How often does your job leave you with little time to get things done?	0.176	12.937	0.000
	How often is there a great deal to be done?	0.162	11.399	0.000
	Total	0.039	13.248	0.000

The following table presents the results of independent sample t-tests employed to compare the changes in perception among those receiving at least minimum wage and those do not receive at least minimum wage after the implementation of minimum wage policy. The mean difference is calculated as difference of the after-minus-before rating between the two groups.

Table 6. The comparison of changes in perception among those receiving at least minimum wage and those do not receive at least minimum wage

Constructs	Item	(a)	(b)	(c)	t	p
Job Morale	My pay is enough to live on comfortably	0.511	0.519	-0.008	-0.127	0.899
	I am underpaid for the work that I do#	-0.666	-0.496	-0.171	-2.560	0.011
	The company's employee benefit program is satisfactory	0.504	-0.372	0.876	15.604	0.000
	Total	0.140	.0535	0.087	9.114	0.000
Turnover Intention	I often seriously consider leaving my current job	0.044	-0.657	0.700	10.937	0.000
	I intend to quit my current job	0.031	-0.663	0.694	11.530	0.000
	I have started to look for other jobs	0.041	-0.733	0.774	11.249	0.000
	Total	0.010	-.1711	0.181	12.501	0.000
Job Demand	How often does your job require you to work very fast?	0.155	0.370	-0.215	-4.003	0.000
	How often does your job require you to work very hard?	0.137	0.405	-0.268	-4.777	0.000
	How often does your job leave you with little time to get things done?	0.176	0.408	-0.231	-4.040	0.000
	How often is there a great deal to be done?	0.162	0.381	-0.219	-3.560	0.000
	Total	0.039	.0977	-0.058	-4.643	0.000

(a) Changes in perception among those receiving at least minimum wage. (b) Changes in perception among those do not receive at least minimum wage. (c) Mean Difference of the changes between the 2 groups. # The coding of the item is reversed before the calculation of summated score.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

544

Employees were also surveyed on the changes in benefits received from their employers after the implementation of minimum wage. The results are displayed in the following table. The independent sample t test is used to compare the mean of those receiving versus those not receiving the minimum wage.

Table 7. Changes in benefits after the implementation of minimum wage among employees who did not receive the minimum wage and those who received the minimum wage.

Benefits	Employees	Mean	Mean difference	t	Sig. (2-tailed)
Medical coverage - self	Receiving at least minimum wage	3.3529	-.44706	-1.556	.136
	Not receiving minimum wage	3.8000			
Medical coverage - dependents	Receiving at least minimum wage	3.8840	-.11601	-.489	.625
	Not receiving minimum wage	4.0000			
Dental coverage	Receiving at least minimum wage	4.1150	-.18495	-.779	.436
	Not receiving minimum wage	4.3000			
Optical coverage	Receiving at least minimum wage	4.0820	-.11799	-.465	.642
	Not receiving minimum wage	4.2000			
Sick leave	Receiving at least minimum wage	3.1270	-.29408	-1.331	.200
	Not receiving minimum wage	3.4211			
Annual leave	Receiving at least minimum wage	3.2027	-.18616	-.805	.432
	Not receiving minimum wage	3.3889			
Personal unpaid leave of absence	Receiving at least minimum wage	3.3152	-.57365	-2.518	.022
	Not receiving minimum wage	3.8889			
Living & Accommodation	Receiving at least minimum wage	4.0436	.15476	.611	.541
	Not receiving minimum wage	3.8889			
Meal	Receiving at least minimum wage	3.6667	.27778	1.128	.260
	Not receiving minimum wage	3.3889			
Transport allowance	Receiving at least minimum wage	3.7289	.50664	2.038	.042
	Not receiving minimum wage	3.2222			
Insurance	Receiving at least minimum wage	3.5827	.08265	.359	.720
	Not receiving minimum wage	3.5000			
Shift allowance	Receiving at least minimum wage	3.7596	-.01821	-.075	.940
	Not receiving minimum wage	3.7778			
Employer contribution of EPF	Receiving at least minimum wage	3.4472	.16940	.791	.429
	Not receiving minimum wage	3.2778			
Employer transport to work	Receiving at least minimum wage	4.0066	.11769	.461	.645
	Not receiving minimum wage	3.8889			

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

545

The variables are the difference= after - before implementation. Difference = positive meaning favorable or improve after implementation (for + statement). t = positive meaning the (after-b4) of those got minimum wage is higher than those who did not get the minimum wage (i.e. improve more. p/s for positive statements)

Findings

Job Morale

To test the objective of whether after the implementation of the minimum wage policy, is the employee's job morale has improved or worst-off, the use of independent sample t-test shows using 3-items to measure job morale of the employees. From the result, there is a change in terms of the job morale perceptions for both received (t=28.179, p <0.001) and those that did not received (t=6.604, p<0.001) the minimum wage even after the implementation of the policy. The mean difference (md) between these two groups is 0.087 indicates that there is significant difference in terms of their job morale perception (p<0.001). Those that received the minimum wage seem to be higher in terms of their job morale in comparison to those that did not received it even after the implementation.

As of the breakdown for each of the items, the first item that measures whether their pay is enough for them to live on comfortably, both the groups of employees that do received (t=22.698, p<0.001) and those that did not (t=8.96, p<0.001) received minimum wage after the implementation shows that their pay allows them to live on comfortably after the implementation. Thus, this indicates that there is significant improvement for both groups of employees. Furthermore, from TABLE D, there are no significant difference between both groups (t=-0.127, p>0.05).

The second item that measures job morale looks into whether employees are underpaid for the work that they are doing. Through the second item, it indicates that both the employees that do not (t=-8.281, p<0.001) and does (t=-22.575, p<0.001) received minimum wage after the implementation of the policy shows that they are not underpaid when commensurate with the work that they are doing. However, when both groups are being compared in terms of their difference perceptions with regards to this item before the implementation ad after the implementation of minimum wage policy, there is a significant change of t=-2.56, p<0.05.

For the last item, job morale was measured using the employee's benefit program as offered by the company to be considered satisfactory or not. There is a significant different between both groups (t=15.604, p<0.001) whereby the employees that do not receive minimum wage after the implementation responded that they are worst-off (t=-7.325, p<0.001) compared to those employees that received minimum wage after the policy implementation (t=21.147, p<0.001). The latter group sees positive improvement to the program after the minimum wage implementation.

Turnover intention

In total, the group of employees who are receiving minimum wage has intention to leave (t=2.250, p<0.05) the current job as compared to those who have no intention to leave (t=-12.393, p<0.05). This further proved in the Table C, the two groups has significant different change in-terms of intention on turnover (t=12.501, p<0.05). Further details of the 3 items are as following:

For the first item that investigate whether the employees seriously consider leaving the current job, group of employees that do received (t=2.324,p<0.05) the minimum pay considering leaving the current job, where else the group of employees who did not (t=-10.726, p<0.05) received minimum wage do not consider leaving. From Table C, there shows significant difference between both groups (t=10.937, p<0.05).

For the second item is to find out the intention to quit for the current job, there is no significant result for the group of employees that received minimum wage (t=1.736, p>0.05). Group of employees who did not (t=-11.543, p<0.05) received minimum wage shows no intention to quit the current job.

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26ᵗʰ September, 2014.

546

As for the third item, to investigate whether employees started to look for other jobs since the implementation of minimum wage. The group of employees that did received (t=2.089, p<0.05) the minimum pay has started to look for jobs, where else the group of employees who did not (t=-11.112, p<0.05) received minimum wage have not started to look for other job. From TABLE D, there shows significant difference between both groups (t=11.249, p<0.05).

Job Demand

In total, employees receiving (t=13.248, p<0.05) and not receiving (t=8.009, p<0.05) minimum wages perceived that the management has higher job demand on them since the implementation of the minimum wage policy. However as shown in Table C, those not receiving the minimum wage perceived greater job demand on them (t=-4.643, p<0.05) as compared to the group that received the minimum wage. Further details for four items are as follows:

For the first item that measures how often their job required them to work fast, both the groups of employees that do received (t=11.015,p<0.05) and those that did not (t=7.129,p<0.05) received minimum wage after the implementation shows that they are require to work very fast. Thus, this indicates that they are expected to work faster after the implementation of minimum wage policy. However, when both groups are being compared in terms of their difference perceptions with regards to this item before and after the implementation of minimum wage policy, there is a significant change (t=-4.003, p<0.05).

For the second item measures how often their job required them to work hard, both the groups of employees that do received (t=9.505, p<0.05) and those did not (t=7.471, p<0.05) received minimum shows that they are expected to work even harder after the implementation of minimum wage policy. However, when both groups are being compared in terms of their difference perceptions with regards to this item before and after the implementation of minimum wage policy, there is a significant difference in terms of change (t=-4.447, p<0.05).

For the third item measures how often their job leaves them with little time to get things done. Both groups of employees that do received (t=12.937, p<0.05) and those that did not (t=7.332, p<0.05) received minimum wage after the implementation shows that very often they have little time to complete their task. Thus, this indicates that they are expected to work more efficiently so that task can be completed within shorter time period after the implementation of minimum wage policy. However, when both groups are being compared in terms of their difference perceptions with regards to this item before and after the implementation of minimum wage policy, there is a significant different in terms of change (t=-4.040, p<0.05).

For the fourth item measures how often there is a great deal to be done. Both groups of employees that do received (t=11.399, p<0.05) and those that did not (t=6.376, p<0.05) received minimum wage after the implementation shows an increased in the task volume needed to be completed. Thus, this indicates that they are expected to work in higher volume after the implementation of minimum wage policy. However, when both groups are being compared in terms of their difference in perceptions with regards to this item before and after the implementation of minimum wage policy, there is a significant difference in terms of change (t=-3.56, p<0.05).

Benefits

Overall, the test results demonstrate that there are no significant changes in benefits after the implementation of minimum wage. Of the 14 items in the questionnaire, significant changes in benefits were found on only 2 items. They are "personal unpaid leave of absence" and "transport allowances". The test results show that after the implementation of minimum wage, employees received less benefits in terms of "personal unpaid leave of absence" (t=-2.518, p<0.05), and more benefits in terms of "transport allowances" (t=2.038, p<0.05). For the rest of the 12 benefits, encompassing medical coverage – self, medical coverage - dependents, dental coverage, optical coverage, sick leave, annual leave, living and accommodation allowance, meal allowance, insurance, shift allowance, employer contribution of EPF,

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

547

employer-provided transport to work – there are no significant changes in before and after the implementation of minimum wage in their companies (p>0.05).

Discussion and Conclusion

Job Morale

The impact of job morale was tested using the independent sample t-test and the results found that there are changes in terms of the job morale for both groups of employees. This current study also corroborate with the findings by Johnsrud and Rosser (2002) where the morale (due to the extrinsic values) of the employees does affect their intention to leave the organization. It is the cumulative effect of the perceptions from the extrinsic values received that resulted in the outcomes such as morale and/or satisfaction and ultimately impact the behavior of intention to leave (Johnsrud, Heck and Rosser, 2000; Johnsrud and Rosser, 2002). As part of the morale findings in this current study, it was found that employee benefits program is important in the improvement of employee's morale. As corroborated in the study by Mochama (2013), the employee benefits are significant in affecting the morale and the retention of the employees. She found that employee's benefits program act as a morale booster among the employees, when the employees are happy there will be enhanced retention of them in the company.

Turnover Intention

Our results which found that the group of employees who are receiving minimum wage adjustment has intention to leave are supported by some previous studies. Possible reasons include perceived unfairness, inequity or too little in terms of adjustment (Ganpanchi, 2011; Alaniz, Gindling & Katherine 2011; Rutner et al, 2008; Daves, 2002; Igbaria & Greenhaus, 1992). Eventually these factors will lead to the increase in employees' turnover intention. However, this was not the case among employees in the social enterprises in France where Ohana and Mayor (2010) found that there is no link between the distributive justice (perceived equity about resources or wage allocation) and job satisfaction, which eventually affected the intention to leave.

Job Demand

The impact of job demand was tested using the independent sample t-test and the result found there are significant changes in job demand for the both groups of employees. This finding is supported by the study done by the Alternative Movement and Freedom (AMRF, 2012) as well as Steward and Swaffield's (2008) study in UK which found increased job demand after the implementation of minimum wage.

Possible reasons may be that organizations scale back the numbers of hours scheduled for their low-paid workers rather than laying them off, offsetting the wage increase with higher productivity. Profits of the organization will be affected due to higher wages, prices need to rise, or the company needs to become more efficient and use fewer hours of labor for each task. If businesses become more efficient, increasing minimum wages could lead to fewer employees or fewer paid hours per employee (Duff, 1996). When the minimum wage increases, the organizations will put more demands on the outcome and performance of the new emerging workforce. The current workforce will be expected to do more work with fewer employees to share the workload, especially in the competitive small business world, as it takes more cost to hire additional employees (Ryosho, 2010).

Benefits

Our research findings on the impact of minimum wage on employee benefits mostly showed no significant changes after the introduction of minimum wage. These findings are supported by some past studies. In a longtitudinal study in the U.S., Simon and Kaestner (2003) found no discernible reduction in fringe benefits for low skilled workers in the U.S. Similarly, Card and Krueger's (1994) study showed no reduction in free or price-meal benefits for employees of fast-food restaurants. However, some other studies demonstrated reduction in benefits provided by employers after the introduction of minimum wage

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

548

as demonstrated by a 50 years major review of U.S. companies (Wilson, 2012). Wessels (1980) and Alpert (1986) also reported small reductions in fringe benefits in response to a minimum wage increase in the retail and restaurant industries.

In conclusion, the findings of our research are generally in line with past studies on job morale, turnover intention, job demand and benefits. It would also be useful to address some other factors like the effect of gender, work sector, and/or employment status on the employees' perceptions. Additionally, studies on the relationship between job morale, job demand, benefits and other relevant factors with turnover intention may also be a useful tool to gauge the effects of minimum wage on worker retention.

References

Abii, F. E., Ogula, D. C. N. and Rose, J. M. (2013). Effects of individual and organisational factors on the turnover intentions of information technology professionals: *International Journal of Management, 19* (2).

Alaniz, E, Gindling, T.H., and Terrell, K (2011) The impact of minimum wages on wages, work and poverty in Nicaragua, Labour Economics 18, S45–S59.

AMRF (June 2012) with the support of Faur Wear Foundation. Minimum Wage Implementation in Bangkadesh's Garment Factory Sector.

Baehr. M. E., and Renck, R. (1958). The definition and measurement of employee morale. *Administrative Science Quarterly, 3*(2), p.157-184.

Bodla, M., & Hameed, A. (2008). Factors affecting employee turnover intention: Empirical Evidence from Textile Sector of Pakistan. *Int. J. Knowl., Cult. Change, Manage, 9* (8), 53-64.

Bureau of Labor Statistics (2005). *Employee benefits in private industry*. U.S. Department of Labor.

Card, D. and Kruger, A.B. (1994). Minimum wages and employment: A case study of the fast- food industry in New Jersey and Pennsylvania. *American Economic Review*, 84, 772-793.

Chen, ML., Su, ZY., Lo, CL., Chiu, CH., Hu, YH. and Shieh, TY. (2013). An empirical study on the factors influencing the turnover intention of dentists in hospitals in Taiwan. *Journal of Dental Sciences*: 1-13.

Conference Board (2007). *Employee benefits: Second generation wellness and productivity.* New York: Conference Board Institute.

Cotton, J., and Tuttle, J. (1986). Employee Turnover: A Meta-Analysis and Review With Implication for Research. *Academy of Management Review*, 11(1), 55-70.

Daves, H. A. (2002). *The predictors of turnover intentions: An investigation of front-line employees in the retail industry.* (Order No. 3075538, The University of Tennessee). *ProQuest Dissertations and Theses,*133-133p. Retrieved date: April 27, 2014 from http://search.proquest.com/docview/305513461?accountid=50207. (305513461).

Deci, E.L. (1975). Intrinsic motivation. New York: Plenum Press.

Dess, G. G and Shaw, J. D (2001). Voluntary turnover, social capital and organizational performance. *Academy of Management Review, 26* (3), 446-456.

Dreher, G., Ash, R. and Bretz, R. (1988). Benefit coverage and employee cost: Critical factors in explaining compensation satisfaction. *Personnel Psychology*, 41, 237-254.

Dube, A., Lester, T. W., and Reich, M. (2010). Minimum wage effects across state borders: Estimates using contiguous counties. *The review of economics and statistics*, *92*(4), 945-964.

Duff, C., 1996. New minimum wage makes few waves. *Wall Street Journal*, November 20, A2.

Dulebohn, J.H., Molloy, J.C., Pichler, S.M. and Murray, B. (2009). Employee benefits: Literature review and emerging issues. *Human Resource Management Review*, 19, 86-103.

Flinn, C. J. (2006). Minimum wage effects on labor market outcomes under search, matching, and endogenous contact rates. *Econometrica*, *74*(4), 1013-1062.

Gerhart, B. and Milkovich, G. (1992). Employee compensation: Research and practice. In *Handbook of industrial and organizational psychology* (Vol.2), edited by M.Dunnette and L. Hough, Palo Alto, CA: Consulting Psychologists Press.

Hamermesh, D. *Labor Demand*. Princeton, NJ: Princeton University Press, 1993.

H. Bester et al. / Labour Economics 19 (2012) 923–930

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

549

Harris, M. (1993). Reactions to employee benefits: Development and refinement of a measure. In *Proceedings of the forty-fifth annual meeting of the industrial relations research association*, edited by J.Burton.

Harris, M.M. and Fink, L.S. (1994). Employee benefit programs and attitudinal and behavioral outcomes: A preliminary model. *Human Resource Management Review*, 4, 117-129.

Hom P. W. and Griffeth R. (1992) Employee Turnover, South Western Publishing, USA

Igbaria, M. and Greenhaus, J. H. (1992). Determinants of MIS employees' turnover intention: Structural Equation Model. Communication of the ACM. Feb, 35 (2).

Jacons, E. & Roodt, G. (2007). The development of a knowledge sharing construct to predict turnover intentions. Aslib Proceedings, 59 (3), 229-248.

Johnsrud, L. K., Heck, R. H., and Rosser, V. J. (2000). Morale matters: Midlevel administrators and their intent to leave, The Journal of Higher Education, 71(1), p.34-59.

Johnsrud, L. K., and Rosser, V. J. (2002). Faculty members' morale and their intention to leave. *The Journal of Higher Education, 73*(4), p. 518-542.

Khalil, M. I. K. (2013). Job satisfaction and work morale among Ph.D's: A study of public and private sector universities of Peshawar, Pakistan. *International Review of Management and Business Research, 2*(2), p.362-370.

Lane, M. (1993). The effect of employee benefit satisfaction on organizational consequences. In *Proceedings of the forty-fifth annual meeting of the industrial relations research association*, edited by J.Burton.

Lindgren, H. C. (1982). *Leadership, authority, and power sharing*. Malabar, Fla.: R.E. Krieger Pub.

Lindsay, W. M., Manning, G. E., and Petrick, J. A. (1992). Work morale in the 1990s. *SAM Advanced Management Journal*, 57(3), p.43-48.

Linz, S. J., Good, L. K., and Huddleston, P. (2006). Worker morale in Russia: An exploratory study. *Journal of Managerial Psychology, 21*(5), p.415-437.

McKnight, D., Ahmad, S., and Schroeder, R. (2001). When do feedback, incentive control and autonomy improve morale? The importance of employee-management relationship closeness. *Journal of Managerial Issues, 13*(4), p. 466-482.

Micelli, M.P. and Lane, M.P. (1991). Antecedents of pay satisfaction: A review and extension. In K.M. Rowland & G.R. Ferris (Eds). *Research in personnel and human resources management*, Vol. 9. Greenwich, CT.: JAI Press.

Miller, D and Shamsie, J., (1996). The resource-based vie of the firm in two environments: The Hollywood Firm Studios from 1936 to 1965*. Academy of Management Journal, 39* (3), 519-543.

Milkovich, G.T., Newman, J.M. and Gerhart, B. (2014). *Compensation.* McGraw Hill, N.Y.

Ministry of Human Resources, Malaysia (MOHR), Retrieved June 22, 2014 from http://mohr.gov.my.

Mobley, W.H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. Journal of Applied Psychology, 62, 237-240.

Mochama, V. K. (2013). The relationship between allocation of equal employee benefits and employee job satisfaction and performance at the Kenya Pipeline Company, Kenya, Journal of Emerging Trends in Economics and Management Sciences, 4(2), p.262-267.

Moore, J.E. 2000. One road to turnover: an examination of work exhaustion in technology professionals. *MIS Quarterly* 24 (1),141-168

Neumark, D., Schweitzer, M., and Wascher, W. (2004). Minimum wage effects throughout the wage distribution. *Journal of Human Resources*, *39*(2), 425-450.

Nienaber, H., & Masibigiri, V. (2012). Exploring factors influencing voluntary turnover intent of Generation X public servants: A South African case. *Acta Commercii, 12* (1), 67-84.

Ohana, M. & Mayer, M (2010), Should I stay or should I go now? Investigating the intention to quit of the permanent staff in social enterprises, European Management Journal, Dec, 28 (6), 441-454.

Perez, M. (2008). Turnover intent. *Human Resource Management, 1* (1) 6-67.

Price, J. L. (2001). Reflections on the Determinants of Voluntary Turnover. International Journal of Manpower, 22(7), 600-624.

Price, J. L., and Mueller, C. W. (1981). A Causal Model of Turnover for Nurses. Academy of Management Journal, 24, 543-565.

Ryosho, N. (2010). *Job and personal resources and demands: The effects on job satisfaction and job search behavior of certified nursing assistants (CNAs) working in nursing homes.* (Order No. 3402947, Virginia Commonwealth University). *ProQuest Dissertations and Theses,* 166. Retrieved

International Conference On Business, Accounting, Finance, and Economics (BAFE 2014)
Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, 26th September, 2014.

550

date: Apr 27, 2014 from http://search.proquest.com/docview/305227823?accountid=50207. (305227823).

Simon, K.I. and Kaestner, R. (2003). *Do minimum wages affect non-wage job attributes? Evidence on fringe benefits and working conditions.* (Working Paper No. 9688). Retrieved from: National Bureau of Economic Research, Cambridge website: http://www.nber.org/papers/w9688.pdf

Suksaranruedee, S. and Sucaromana, U. (2013). Working morale on hospitality employees in Thailand. Asian Social Science, 9(10), doi: 10.5539/ass.v9n10p88.

Steward, M.B. & Swaffield.(2008) The other margin : do minimum wages cause working hours adjustment for low wage workers? Economica, New Series,75 (297), 148-167. Wiley on behalf of the London School of Economics and Political Sciences and the Suntory and Toyot International Centres for Economics and Related Disciplines. URL: http://www.jstor.org/stable/40071735. Accessed date:27/04/201404

Tett, R. P., and Meyer, J. P. (1993). Job Satisfaction, Organizational Commitment, Turnover Intention, and Turnover: Path Analyses Based on Meta-Analytic Findings. *Personnel Psychology*, 46, 259-293

Wilson, M. (2012). The negative effects of minimum wage laws. *Policy Analysis*, 701, 1-13.

Wesbrook, S. D. (1980). Morale, proficiency, and discipline. *Journal of Political and Military Sociology, 8*, p. 43-54.Wessels, W. (1980). *Minimum wages, fringe benefits and working conditions*. American Enterprise Institute for Public Policy Research, Washington.