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& HUMANITIES**

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A special issue devoted to the
Issues in Management and Marketing

Guest Editors:
Lailawati Mohd Salleh and Azmawani Abd Rahman



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Pertanika is an international peer-reviewed journal devoted to the publication of original papers, and it serves as a forum for practical approaches to improving quality in issues pertaining to tropical agriculture and its related fields. Pertanika began publication in 1978 as the Journal of Tropical Agricultural Science. In 1992, a decision was made to streamline Pertanika into three journals to meet the need for specialised journals in areas of study aligned with the interdisciplinary strengths of the university.

The revamped Journal of Social Sciences & Humanities (JSSH) aims to develop as a pioneer journal for the Social Sciences with a focus on emerging issues pertaining to the social and behavioural sciences as well as the humanities, particularly in the Asia Pacific region. Other Pertanika series include Pertanika Journal of Tropical Agricultural Science (JTAS); and Pertanika Journal of Science and Technology (JST).

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Preface

During a meeting in February 2012, the Department of Management and Marketing, Universiti Putra Malaysia, decided to disseminate its members' research and studies done through projects and consultations via publications. Responses were good. After an initial screening for journal quality manuscripts, each manuscript underwent a blind review process by two professors who are experts in the area of research. Sixteen articles were considered deemed for publication.

The articles cover issues in human resource, MIS, operations management, consumer behaviour, and international business, to name a few. A few articles are conceptual papers, while others are empirical contributions; either done qualitatively or quantitatively. With a focus on management and marketing, this issue is entitled "Special Issue: Management and Marketing."

In producing this special issue, many parties need to be acknowledged. First and foremost, the team of reviewers who had provided constructive feedbacks and comments to upkeep the quality of the articles to be published. Second, the team at PERTANIKA who had effortlessly been working towards the production of the issue and finally, the article contributors, who continued to persist within the time constraint without losing heart. Congratulations!

As a final note, this special issue is our contribution to the body of knowledge in producing and enhancing societal and nation's well-being.

Last but not the least, this issue is a concerted effort made possible with the help of many. Specifically, we thank Dr. Nayan Kanwal, the Chief Executive Editor and his dedicated Pertanika team at the Journal Division, UPM Press, for their generous guidance and commitment.

Lailawati Mohd Salleh
Azmawani Abd Rahman

Guest Editors

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Strategic Posturing of Malaysian Mobile Phone Service Providers

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ABSTRACT

The Malaysian mobile phone service started with only one service provider in the 1980s, which then increased to seven by mid 1990s due to government liberalization policies. Nonetheless, this number decreased to three in 2004, and this marked the beginning of an intense competition within the industry. Utilizing the case study and content analysis methodologies, we gathered data from the public domain and developed a case that describes strategic actions taken by members within the industry. Based on Miles and Snow's business strategy typology, we analyzed the case data by answering the questions of "*How do the industry players compete?*", and "*What factors are important in shaping their strategies?*" The research objective is to provide a conceptualization of strategic posturing by Malaysian mobile phone service providers. Our analysis show that the initial strategic moves of these companies are predominantly *prospecting*, and, later, *analyzing*, when the market reaches subscription saturation, and competition begins to intensify. Industry latecomers either arise as challengers or adopt a niche strategy as their strategic option. The adaptive actions of these companies are greatly influenced by institutional elements of the government's policies, market situation, and rivals' actions and responses. These actions are mainly tied to resources and capabilities of their large internationalized parent companies. Taken altogether, the perspective of adaptation, as well as the theories of organizational ecology and institutionalization, provides important theoretical grounds in explaining strategic posturing and factors that influence it.

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INTRODUCTION

The Malaysian telecommunications industry, which includes both fixed and mobile service providers, has experienced a very rapid growth, particularly in the last decade. The industry, which since early 1990s, has been designated as a strategic medium to transform Malaysia into a developed country (Zita, 2004) is now one of the central structures of the country (Ahsanul *et al.*, 2007). The industry's combined revenues rapidly increased from 17.4 billion ringgit in the year 2000 to 44.4 billion ringgit in the year 2008 (MCMC, 2010). However, beginning in late 2010, the industry players have increasingly faced various serious challenges such as the imminent fiercer competition in both mobile phone and broadband markets; threats of impending market saturation; spiralling infrastructure and technology costs; and, possibly, higher bargaining power of the suppliers. Thus, there is a need for them to develop a strategic posturing-defined as the act of strategizing to achieve competitive advantages to ensure business survivability and sustainability (Covin & Slevin, 1989). Given their competitive situation, examining these companies' strategic posturing could have important theoretical, policy and managerial implications.

The adaptation theory suggests that an organization's success depends on its ability to 'adapt' itself to changes within its environment. Therefore, adaptation requires capabilities and resources that enable an organization to exploit opportunities and reduce risks in its environment. The

organization also needs to continuously evaluate its internal and external elements, alters its internal structure and processes, or influences changes to its relevant environmental elements so that a viable match exists between its internal capabilities and resources with the external opportunities and risks (Chaffee, 1985; Miles *et al.*, 1978).

One of the important strategy conceptualizations, which was developed based on the adaptation theory, is Miles and Snow's (1978) business strategy typology. It describes an organization's strategic need to fit its own capabilities and resources with opportunities and threats which exist in its environment, reflecting the adaptation theory that underlies its conceptualization (Chaffee, 1985).

We utilized this business strategy typology as our theoretical lense to achieve the research objective, which is to provide a conceptualization of strategic posturing by Malaysian mobile phone service providers. The research questions that we addressed are: "*How do the industry players compete?*" and "*What factors are important in shaping their strategies?*"

The organization for the rest of the paper is as follows: First, in brief, we discuss Miles and Snow's business strategy typology. Then, we describe the research methodology utilized in this study. Next, we analyze the strategies adopted by the mobile phone service providers against our conceptual framework and broader theories of organizational strategies. This analysis is based on the information gathered from the public domain, and is presented in a form of

an industry development case in Appendix A. Lastly, we present the conclusions and implications for future research and practice.

MILES & SNOW BUSINESS STRATEGY TYPOLOGY

The adaptation theory proposes the importance of a firm's ability in adapting to its environment. In this sense, organizational capabilities and resources are required to exploit environmental opportunities and overcome external threats (Chaffee, 1985; Miles *et al.*, 1978). Based on this theory, Miles and Snow's (1978) business strategy typology assumes that organizations make a number of choices in their efforts to manage their environment, including deciding on the markets that they want to be in, the products/services that they want to offer, the technologies that they want to adopt, as well as the types of operations that they want to implement (Parnell & Wright, 1993). In this regard, these strategic moves are taken based on evaluations of the environmental elements and the matching of them with the internal contexts of the organizations (McDaniel & Kolari, 1987).

This typology recommends four strategies, which are *prospecting*, *defending*, *analyzing*, and *reacting*, that can be utilized by an organization to compete against other industry rivals (Griffin, 2011; Williams, 2005). These are summarized in Table 1.

RESEARCH METHODOLOGY

This study utilized a combination of explanatory case study methodology and content analysis methodology.

An explanatory case study design is a methodological procedure that begins with the study proposing a conceptual framework, as well as defining the types of questions and data that are appropriate for analysis. The conceptual framework guides the explanation of the empirical data, and in turn, these data in combination with the theoretical explanation provide the basis for generating the study's findings. These findings are later corroborated with broader theories to generate a conceptualization that has a high theoretical generalizability (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Yin, 2009).

Based on Miles and Snow's framework and the combined methodological approaches, data on the mobile phone industry were gathered and then developed into a chronological time-based case. In this way, the development of the industry could be traced from its beginning to the present time (finalized data collection date was 31 December 2010). The primary data utilized were information gathered from sources published in the public domain. The content analysis methodology, with its ability to handle numerous volumes of textual data, was utilized to analyze and organize the data into a case (Doriau, Reger, & Pfarrer, 2007; Krippendorff, 2004; Stemler, 2001; Mohd Fuaad & Khairul Akmaliah, 2010). The data cited are indicated in the text and in the list of reference section.

The case was finally interpreted based on Miles and Snow's typology and, if unfitting, other relevant strategy theories. The above procedures enabled the

TABLE 1
Strategies under Miles & Snow business strategy typology

Strategy	Characteristics
Prospector	<ul style="list-style-type: none"> - Continually explores and searches for new market opportunities, and generally acts as an agent of change in the industry, and thus, is a first mover in the industry (McDaniel & Kolari, 1987; Miles & Snow, 1978); - Pushes for innovation and creativity in its operation, is always searching for new customers and opportunities, aims for business growth, thus is generally involved in higher risk activities; - Emphasizes the need for a firm to be the first to introduce innovative products to customers, and tries to seize the opportunities in identifying the present and future needs of its customers (Miles et al, 1978).
Defender	<ul style="list-style-type: none"> - Focuses on securing and safeguarding a product or a market niche (Griffin & Page, 1996). - Unlike prospectors, usually do not extensively search for opportunities outside its focused niche (McDaniel & Kolari, 1987); - Concentrates on dealing in a small number of narrow product/service domains, serving current and well-defined customers, protecting its current market share, and maintaining a steady growth (Miles et al., 1978); - Vigorously protects its current market position and tries to maintain its hold on customers in a certain market niche; - Usually involves operating at low costs and improving the quality of its existing products/services (Griffin & Page, 1996).
Analyzer	<ul style="list-style-type: none"> - Combines 'prospecting' and 'defending' strategies, in which it attempts to take full advantage of opportunities aimed at profitability and growth (prospecting), while also trying to minimize its business risks (defending) (Beekun & Ginn, 1993; Miles et al., 1978); - Strives to maintain its existing market position, while at the same time attempts to be innovative in the industry; - Closely monitors the actions of its main competitors or prospectors and quickly imitates them; Acts as an imitator rather than an innovator (Griffin & Page, 1996);
Reactor	<ul style="list-style-type: none"> - Has lack of consistent approach to strategizing (Griffin & Page, 1996; Miles et al., 1978). - Usually responds to pressures in its environment only when there is a strong force to do so; Compared to its competitors, is more passive toward the events in its environment and in maintaining its market share; - Is aware of its environment, but generally tends to respond to events after they have occurred (Griffin & Page, 1996; McDaniel & Kolari, 1987).

conceptualizing of strategic postures within the environment in which they occurred, and the identification of factors that influenced them, while simultaneously achieving theoretical generalizability.

The Malaysian telecommunications industry comprises sectors of telephone and internet services. The telephone sector can be generally categorized into fixed and mobile service subsectors. In this study, our analysis focused exclusively on the mobile phone service subsector. This industry segment has two groups of customer base, which are retail and corporate. It is important to note that this study concentrated primarily on the development of the industry/strategic posturing of the mobile phone service companies in relation to their retail markets.

CLASSIFICATION OF STRATEGIC MOVES OF INDUSTRY PLAYERS AND THEIR INFLUENTIAL FACTORS

Telecommunication services comprise of a range of services, including fixed telephone line, mobile phone service, as well as fixed and mobile broadband offerings. The development of the mobile phone service industry in Malaysia is marked by a number of milestones (Refer to Appendix A), and the trajectory of which is very much influenced by government policies (particularly in regard to the issuance of licenses to operate), the market needs, the capabilities and resources that the competitors have in hand, and their actions and responses to others. During the first 10 years (i.e. from 1984 to 1995), the industry was monopolized by two players; the fixed line by TM and the mobile

service by Celcom. Subsequently, through the government's liberalization policy, the industry was opened up to other players, resulting in seven telecommunications players. However, financial crises and government's intervention resulted in the number of mobile phone service providers being reduced to three in 2004, which comprised of Celcom, Maxis and DiGi. In 2008, U-Mobile joined these three players, and this increased the number of players in the industry to four. By then, there were also four players in the fixed line business, but the sector remained monopolized by TM.

Utilizing Miles and Snow's strategic typology as our framework, we present an analysis of the actions of mobile phone providers according to the types of strategy they have implemented.

Prospector: In this study, we define prospecting strategy as an act of continuously innovating to capitalize on new opportunities with the aim of achieving firm profitability and growth. Maxis, Celcom and DiGi can be classified as *prospectors*. Celcom is a prospector since it was the first service provider to launch the GSM mobile phone service in the country in 1988, and along with Maxis, to offer 3G service in 2005, and introduce 3G broadband in 2006. Both Celcom and Maxis were the first to offer BlackBerry smartphone service packages in 2006. Maxis can also be classified as a *prospector* because of its utilization of satellite technologies (the first to have such utility), which was made available by its sister company, and it has generally been the most innovative company in investing

and improving its infrastructure. In 2009, Maxis became the first provider to offer its postpaid customers mobile phone services on board of certain flights, and was the first to bring iPhone services into the Malaysian market. In the same year, Maxis was also the first to offer its customers integrated mobile payment services.

In addition, DiGi can be considered as a *prospector* for its reputation as an innovator within the industry, and was voted the most innovative company in Malaysia for three consecutive years. It was this innovativeness that contributed to the company's success in achieving the 25.5% subscriber market share in the year 2008 compared to 19.8% in 2003. The increase in the DiGi's market share was at the expense of Maxis (about 1%) and Celcom (about 6%) (MCMC, 2009b). DiGi was the pioneer in implementing a full digital network service in 1995, launching prepaid services in 1998, and utilizing ePay's digital reload service in 1999. DiGi was also the first to utilize market segmentation strategy. These actions were quickly imitated by its rivals, Celcom and Maxis.

The accumulative innovative efforts by these players contributed to their companies' profits and overall industry growth. DiGi's account showed losses from 2003 to 2005; so did Celcom in 2005, but all the three companies were profitable in 2006, 2007, and 2008. The combined revenue of Celcom, Maxis and DiGi was about RM10 billion in 2003. This figure increased to RM18.42 billion in 2007, reflecting an average market growth revenue of about RM1.65 billion

annually (or 17%) from 2003 to 2007. By the end of 2009, the mobile telecommunications industry's revenue was RM26 billion, with RM335 million contributed by the mobile broadband businesses (DiGi.Com Berhad, 2003; 2004; 2005; 2007; MCMC, 2004; 2007b; 2007d; 2009b).

In more specific, Celcom can be classified as a *service prospector* mainly because it was the first telco to be awarded with the GSM license in Malaysia. It was also one of the first two licensees (along with Maxis) to introduce 3G broadband services. The introduction of Celcom's 3G service was facilitated by TM, its parent company, which at the time, was the monopoly wholesaler for telecommunications infrastructure technologies. The introduction of its Blackberry product was also facilitated by its parent company's collaborative networks with Vodafone. On the other hand, Maxis, which has also benefited from collaborative networks for its Blackberry offerings, is an *infrastructure prospector* because of its huge investment and main strengths in infrastructure installation and operation. This is possible since Maxis is a part of a resource-rich international conglomerate. Meanwhile, DiGi is a *mixed prospector* in that it is the top Malaysian service provider of prepaid service and the inventor of many segmented service packages. In strategizing its growth, DiGi has gained advantage in having Telenor as its parent company and also sister companies which had already implemented 3G and other relevant technologies in other countries. Many of DiGi's top management team members, who

have previously been trained at its parent company, also lend their experiences in developing some of the strategies executed by DiGi in its operations.

In summary, the mobile phone companies are able to utilize prospecting strategies mainly because they have the resources and capabilities, including the access to the resources and capabilities of their parent companies. Specifically, these parent companies' huge financial resources and capabilities, which are earned in large part through internationalization, serve as an important foundation in lending appropriate resources to their subsidiaries. These resources include the availability of technology and capabilities to forecast technological development and change, and to create and sustain collaborative networks which are important elements for new technological service introduction and firm growth.

Defender: In this study, we define defending strategy as acts of protecting the current market share and operating in a market niche. Up to 2008, the industry players were generally prospectors and analyzers rather than defenders. This is mainly because the three main players were targeting broad market rather than niche market. Also, until 2007, the need to protect their market share was not a major issue as the market was large enough for all three players. While DiGi was building its market share from 2003 to 2008, there were still many Malaysians without mobile phones. The penetration rates of mobile phones usage were 43.91% in 2003, 56.68% in 2004, 74.63% in 2005, 73.2% in 2006, 85.1% in 2007, and 98.9% in 2008. This changed in

2008 when the market reached subscription saturation, and the three companies were threatened by the entry of a new company, U Mobile, and the imminent introduction of the Mobile Number Portability. By the first quarter of 2009, the subscription rate had surpassed the 100% mark, which was at 100.1%, and this figure increased to 106.2% by the fourth quarter of 2009. Therefore, starting 2008, the mobile phone companies have begun to divert their attention towards pinching each other's customers rather than focusing on new market penetration.

In 2009, the mobile virtual network operators (MVNOs), which include XOX and TuneTalk, and which utilized Celcom's mobile infrastructure in offering their services, began to enter the market. Another MVNO is Happy Prepaid, which is DiGi's internal project that was launched at the end of 2007. While Happy Prepaid was initially targeting at new Malaysian mobile phone users, it changed its focus to serving predominantly Malay communities in Kelantan and Terengganu in the mid if 2009, areas where the company had low number of subscribers

Analyzer: Analyzing strategy is a combination of defending and prospecting strategy. More specifically, in this study, it is defined as the act of protecting the current market share and/or quickly imitating *prospector's* strategy. In this regard, Maxis, Celcom and DiGi are all aggressive in using the analyzing strategy. There are many instances of the analyzing strategies utilized by the industry players. Both Celcom and Maxis launched their prepaid service plans following DiGi's success in 1998,

and both also introduced their respective 3G service at about the same time in the second quarter of 2005. Maxis offered its 3G broadband service in September 2006, just after Celcom launched its service in mid 2006. DiGi, which did not have a 3G license, had applied for it at the end of 2005, and a WiMAX license in 2006, but both the applications were initially rejected. After receiving the license in 2007, DiGi introduced its 3G services in February 2008 and 3G broadband service in 2009. Once again, just like the launching of their 3G services, Maxis and Celcom introduced their BlackBerry services at about the same time at the beginning of 2006. This move was later followed by DiGi. Moreover, DiGi's market segmentation strategy was also quickly emulated by Maxis and Celcom.

From 2004 to 2007, the strategy of protecting the market share among the players was not apparent, and this was mainly because the market was large enough for everyone. It was not until 2007 and 2008 that the industry players started to show some defensive acts by pinching other companies' market share due to several important developments in the industry. These include U-Mobile's entry into the market in March 2008 and Mobile Number Portability's introduction in October 2008, as well as mobile phone subscription saturation which began in late 2008. All these events forced the three big companies to be defensive in protecting their own market shares, while prospecting over their competitors, thus making *analyzing* their important strategy beginning around

2007 and 2008. Moreover, the levelling of the playing field with DiGi obtaining the 3G license in 2008 also allowed for a full-fledged analyzing strategy by all companies. DiGi was previously at a disadvantage because it was unable to offer 3G services for a few years (i.e. from 2006 to 2009), while its competitors had the 'free hand' to capture the market.

Meanwhile, the entry of the MVNOs in mid 2009 was not a big threat to Maxis, which had two MVNOs agreements in hand, and Celcom, which had eight MVNOs agreements, as the MVNOs became another revenue source for them. For DiGi, however, these were threats to be reckoned with, as the MVNOs were targeting mainly the prepaid markets, which had been DiGi's domain for years.

Nevertheless, after 2008, Celcom, Maxis, and DiGi, are generally all true *analyzers*. They have quickly imitated prospecting acts by rivals, while also aggressively protecting their market shares. By then, all the three mobile phone companies have an almost equal composition of Average Revenue per User (ARPU) (combined ARPUs of both prepaid and postpaid services). The difference in the size of their market share is also getting smaller, and their products and services are getting similar in terms of offering and pricing.

Reactor: In this study, a reacting strategy involves responses by a firm to the actions in its environment. Our findings do not explicitly show any of the mobile phone companies utilizing this strategy. However, we have identified two emergent classes of

strategy adopted by the group of late entry players in the Malaysian mobile phone service industry, which are challenging and niche strategies.

Emergent types of strategy: U Mobile is a threat to the big three, particularly with it having a 3G license. The firm, however, is a latecomer, and is not equal in regard to infrastructure/sales structure development to the incumbents. Nevertheless, it could become a bigger threat later, i.e. when its structures are more developed and ready. Since its entry, the firm has advertised the most among the four, and also launched heavy promotions, including giving free subscriptions to induce purchase/switching. Being a part of resource-rich conglomerate, U-Mobile has the resources to act as an industry challenger. Therefore, we define challenger as a firm that has the capability and resources to take on the current dominant market players

Another emergent category of strategy is the *niche market player*. This strategy is apparent among the industry newcomers MVNOs. At the disadvantage of being industry ‘laggards’, not having a full license to operate services on their own, and operating under-developed sales and distribution networks, the MVNOs cannot be expected to act as full-fledged challengers to the current market leaders. Thus, the most suitable option for these firms is to focus their effort on specific segments of the markets (niche) and try to build depth of usage in those markets. An example of this strategy is TuneTalk’s effort in capturing ‘in-flight’ pre-paid market through collaboration with its parent company, AirAsia Berhad. The strategies adopted by the industry players over time are summarized in Table 2.

The above highlights the evolutionary nature of strategizing among the players within the industry—how these players

Table 2
Strategies adopted by the industry players over time

Adopted strategies	Year					
	1984-1992	1993-1996	1997-2000	2001-2004	2005-2008	2009-2012
Prospector	Monopoly	Celcom DiGi	DiGi	All 3 players were engaged in <i>market building</i> strategy	Maxis Celcom DiGi	--
Analyzer		Maxis	Maxis Celcom DiGi		Maxis DiGi	Maxis Celcom DiGi
Defender		--	--		--	Maxis Celcom DiGi
Reactor		--	--	--	--	--
Challenger		--	--	--	--	U-Mobile
Niche Player		--	--	--	--	XOX MVNOs

evolved in regard to the types of strategies they implemented, which enriches Miles and Snow's strategic adaptive conceptualization. The fact that some of the companies' strategic postures are adaptive (e.g. *prospecting*) indicates that some of these strategies are internal *strategic choices*, in which they are selected by the managers without them being heavily influenced by competitive elements (Child, 1972). On the other hand, the empirical data also underline the ecological perspective of strategic posturing (e.g. *analyzing*), in that the strategy implemented may be directly induced by rivals' actions (*environmental determinism*) (Burgelman, 1991; Hrebiniak & Joyce, 1985). The tangibility and visibility nature of their services lend themselves to intense imitation, allowing isomorphism among these service providers in defining and institutionalizing themselves within the industry. These companies' strategic posturing reflects their institutionalization intent and actions (Dacin, Goodstein, & Scott, 2002; Daft, 2010; Meyer & Rowan, 1990). Taken together, the theories of adaptation, in combination with ecological perspective and institutionalization theory, are important theoretical foundations in explaining strategic posturing of Malaysian mobile phone service providers and factors that influence this act.

CONCLUSION

At present, the three major mobile phone companies (namely, Celcom, Maxis, and DiGi) play the role of *analyzer* as the mobile phone service market reached subscription

saturation. However, prior to 2008, when the market had yet to mature, and competition had yet to intensify, with the Mobile Number Portability had yet to be introduced, and U Mobile and the MVNOs had yet to enter the market, these three companies were predominantly adopting *prospecting strategies* by being the first mover of many actions. However, the newcomer in the industry, U-Mobile, which is a part of a resource-rich international conglomerate, adopted a *challenging* strategy, while the new MVNOs utilized a *niche strategy*, with each focusing on a specific segment of the market. This is due to the fact that in a saturating industry, pinching competitor's market share and utilizing the niche strategy are the main strategic options.

In summary, the mobile phone service companies' strategies are shaped by the capabilities and resources that they have in hand, including access to capabilities and resources of their parent and sister companies. Specifically in a highly competitive technological service industry, strategic posturing requires huge financial resources, availability of infrastructure, technology, and sales structure, as well as the capabilities to forecast technological development and change, develop new products and services, and manoeuvre around government's policies. Internationalization and collaborative networks are important in instituting these resources and capabilities. Moreover, this study, which expands the application of Miles and Snow strategic typology within technological service context, identifies two

other aspects of strategic posturing; namely, the ‘challenging strategy’ and the ‘niche strategy’, in explaining the strategic actions taken by the players. These empirical data, which refined Miles and Snow’s strategic adaptive conceptualization, also highlight the importance of organizational ecological perspective and institutionalization theory in explaining the act of strategic posturing.

Understanding the factors influencing the companies’ growth and development allows policy makers to design and implement necessary policy instruments and to further promote the growth of the industry. However, while this study elaborates the mobile phone service providers’ strategies vis-à-vis their competitors’, and against some important policy interventions (for example, DiGi’s application for a 3G spectrum), a full analysis of their responses towards government policies and related institutional arrangements and interventions are required in the future. Already the country’s government-backed monopolized backbone telecommunications infrastructure has been the subject of controversy in several industry segments, with it being alleged to lead to expensive and slow Internet connection, and sluggish development of mobile digital content. Empirical data and analysis of this matter are crucial in view that the industry is designated as a strategic vehicle in achieving the developed country status, and thus, the development of information-economy, in which telecommunications serve as important infrastructural technologies, is critical.

In this study, the corporate and 3G broadband businesses of these companies are not the main focus. Due to their importance, future studies that include a full analysis of the mobile phone service providers’ businesses to fully capture their competitive situation and corresponding actions are needed. In particular, responding and joining in to the recent debates which centred on technologies and markets of broadband that are major elements of telecommunications infrastructure of today and in future, is crucial (e.g., Badasyan, Shideler, & Silva, 2011; Gomez-Torres & Beltran, 2011; Madjdi & Husig, 2011; Thompson & Garbacz, 2011).

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REFERENCES

- Ahsanul Haque., Ali Khatibi., Abdur Raquib., & Shameem Al Mahmud. (2007). Consumer perception and its choice mobile telecom service provider in Malaysia. *Journal of International Business and Economics*. Retrieved from <http://www.freepatentsonline.com/article/Journal-International-Business-Economics/178945898.html>.
- Alphonse, J. (2004). *Re-creating the Norwegian model for selling mobile content in Malaysia*. Retrieved from http://www.pfi.uio.no/konferanse/prof_learning/docs/pdf/Paper/gruppe%203/Alphonse%20-%20paper.pdf.

- AmAssurance, DiGi bantu ejen insurans (2008, February 20). *Berita Harian*, p. 27. [In Malay].
- Axiata Group Berhad (2010). *Annual Report 2010*. Retrieved from <http://axiata.listedcompany.com/misc/ar2010.pdf>.
- Badasyan, N., Shideler, D., & Silva, S. (2011). Broadband achievement index: Moving beyond availability. *Telecommunications Policy*, 35(11), 933–950.
- Beekun, R. I., & Ginn, G. O. (1993). Business strategy and international linkages within the acute care hospital industry: An expansion of the Miles and Snow typology. *Human Relations*, 46(11), 1291-1318.
- Broadband Competition Intensifying (2010, February 22). *The Edge*. Retrieved from <http://www.theedgemaalaysia.com/in-the-financial-daily/160057-broadband-competition-intensifying-.html>.
- Burgelman, R. (1991). Intraorganizational ecology of strategy making and organizational adaptation. *Organizational Science*, 2(3), 239-262.
- Business Monitor (2009a). *Malaysia Telecommunications Report Q3 2009*. London: Business Monitor International Ltd.
- Business Monitor (2009b). *Malaysia Telecommunications Report Q4 2009*. London: Business Monitor International Ltd.
- Business Times (2011, July 15). *DiGi set to seal two MVNO deals*. Retrieved from <http://www.prepaidmvno.com/2011/07/15/digi-set-to-seal-two-mvno-deals-business-times/>.
- Carlsson, S (2008, September 9). *DiGi today and tomorrow*. Retrieved from http://www.telenor.com/en/resources/images/digi_tcm28-35251.pdf.
- Celcom (2010). In *Wikipedia, the free encyclopaedia*. Retrieved from <http://en.wikipedia.org/wiki/Celcom>.
- Celcom targets 120% growth in mobile broadband subscribers (2009, March 19). *The Edge*. Retrieved from <http://www.theedgemaalaysia.com/business-news/2292-celcom-targets-120-growth-in-mobile-broadband-subscribers.html>.
- Celcom to distribute Blackberry Pearl (2007, June 21). Retrieved from <http://www.mobile88.com/news/read.asp?file=/2007/6/21/20070620220312>.
- Chaffee, E. E. (1985). Three models of strategy. *Academy of Management Review*, 10(1), 89-98.
- Child, J. (1972). Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6(1), 1-22.
- Cover Story: A ‘new Maxis’ in a much tougher environment (2009, September 28). *The Edge*. Retrieved from <http://www.theedgemaalaysia.com/features/151937-cover-story-a-new-maxis-in-a-much-tougher-environment.html>.
- Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10(1), 75-87.
- Dacin, M. T., Goodstein, J., & Scott, W. R. (2002). Institutional theory and institutional change: introduction to the special research forum. *Academy of Management Journal*, 45(1), 45-47.
- Daft, R. L. (2010). *Understanding the Theory and Design of Organizations*. (10th Ed.) Canada: South Western Cengage Learning.
- DiGi.Com Berhad (2003). *Annual Report 2003*. Kuala Lumpur: DiGi.Com Berhad. Retrieved from http://www.digi.com.my/aboutdigi/media/mr_annual_2003.do.
- DiGi.Com Berhad (2004). *Annual Report 2004*. Kuala Lumpur: DiGi.Com Berhad. Retrieved from http://www.digi.com.my/aboutdigi/media/mr_annual_2004.do.
- DiGi.Com Berhad (2005). *Annual Report 2005*. Kuala Lumpur: DiGi.Com Berhad. Retrieved

- from http://www.digi.com.my/aboutdigi/media/mr_annual_2005.do.
- DiGi.Com Berhad (2007). *Annual Report 2007*. Kuala Lumpur: DiGi.Com Berhad. Retrieved from http://www.digi.com.my/aboutdigi/media/mr_annual_2007.do.
- DiGi.Com Berhad (2008). *Annual Report 2008*. Kuala Lumpur: DiGi.Com Berhad. Retrieved from <http://www.digi.com.my/ar2008/>.
- DiGi.Com Berhad (2009a). *Annual Report 2009*. Kuala Lumpur: DiGi.Com Berhad. Retrieved from <http://www.boardroomlimited.com/irdigi/irdigi/DiGiAnnualReport09.pdf>.
- DiGi.Com Berhad (2009b). *Corporate Milestones*. Kuala Lumpur: DiGi.Com Berhad. Retrieved from http://www.digi.com.my/aboutdigi/corporate/easyabt_coview_milestones.do.
- DiGi.Com Berhad (2009c, July 28). *DiGi is Malaysia's most innovative company*. Retrieved from http://www.digi.com.my/aboutdigi/media/mr_press_det.do?id=4800&pgPoint=3&year=2009.
- DiGi.Com Berhad (2010). *Annual Report 2010*. Kuala Lumpur: DiGi.Com Berhad. Retrieved from <http://www.digi.com.my/aboutdigi/cr/pdf/ar2010.pdf>.
- DiGi.Com Berhad (2011, January 28). *DiGi Result Briefing Q4, 2010*. Kuala Lumpur: DiGi.Com Berhad. Retrieved from <http://www.boardroomlimited.com/irdigi/irdigi/Analyst280111.pdf>.
- DiGi CEO Johan Dannelind answers your 10 questions (2009, April 18). *The Star*. Retrieved from <http://biz.thestar.com.my/news/story.asp?file=/2009/4/18/business/3712143&sec=business>.
- DiGi first-half net profit up 19pc on higher usage (2008, July 23). *New Straits Times*. (p. 39, Biz News Section).
- DiGi launches first retail concept store (2008, November 22). *New Straits Times*. (p. 39, Biz News Section).
- DiGi: Mobile communication will still thrive (2008, December 19). *The Star*. (p. B3, Starbiz).
- DiGi: Plan for 3G roll-out remains on track (2008, September 1). *New Straits Times*. (p. 38, Biz News Section).
- DiGi, Time trading suspended (2008, January 25). *New Straits Times* (p. 35, Biz News Section).
- DiGi's 'Happy' to defend market share (2007, December 8). *New Straits Times* (p. 38).
- DiGi wants customers to get Happy (2007, December 7). *New Straits Times* (p. 44).
- Duriau, V. J., Reger, R. K., & Pfarrer, M. D. (2007). A content analysis of the content analysis literature in organizational studies: Research themes, data sources, and methodological Refinements. *Organizational Research Methods*, 10(1), 5-34.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532-550.
- Eisenhardt, K. M. & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25-32.
- Fauziah Muhtar. (2006, February 6). *TM Berhad signs pact with Vodafone*. Retrieved from http://findarticles.com/p/news-articles/new-straits-times/mi_8016/is_20060206/tm-berhad-signs-pact-vodafone/ai_n44317762/.
- Goh, T. E. (2007a, August 3). DiGi wants to be No. 1 in SME segment. *New Straits Times*. (p. 44).
- Goh, T. E. (2007b, February 10). Insight into DiGi's WiMAX plans. Biz News Section, *New Straits Times*. (p. 39).

- Goh, T. E. (2008a, December 22). DiGi: 30pc of capital spending will go to 3G and Investment in quality paying off. *New Straits Times*. (p. 38, Biz News Section).
- Goh, T. E. (2008b, February 6). DiGi Q4 profit rises 22pc, lifted by bigger user base. *New Straits Times*. (p. 40, Biz News Section).
- Goh, T. E. (2008c, January 26). DiGi hopeful of getting 3G spectrum by June. *New Straits Times*. (p. 34, Biz News Section).
- Goh, T. E. (2008d, July 11). DiGi launches new plans to boost postpaid market share. *New Straits Times*. (p. 40, Biz News Section).
- Goh, T. E. (2008e, May 9). DiGi expects 3G returns after three years. *New Straits Times*. (p. 35, 39, Biz News Section).
- Goh, T. E. (2008f, October 17). No major changes in market share with MNP. *New Straits Times*. (p. 38, Biz News Section).
- Goh, T. E. (2008g, October 25). DiGi posts marginally lower Q3 net profit. *New Straits Times*. (p. 34, Biz News Section).
- Gomez-Torres, L. M., & Beltran, F. B. (2011). Analysis of an integrated plan for expanding broadband access in Colombia. *Telecommunications Policy*, 35, 871–882.
- Griffin, R. W. (2011). *Management Principles and Practices*. 10th Eds. China: International Edition, South-Western Cengage Learning, pp. 236-238.
- Griffin, A., & Page, A. L. (1996). Success measurement project: Recommended measures for product development success and failure. *Journal of Product Innovation Management*, 13, 478–496.
- Hrebiniak, L. G., & Joyce, W. F. (1985). Organizational adaptation: Strategic choice and environmental determinism. *Administrative Science Quarterly*, 30(3), 336-349.
- Khairul Akmaliah, A., Mohd Fuaad, S., Shamshubaridah, R., & Hänninen, S. (2008). e-Pay Malaysia: Asian expansion and challenges. *Asian Journal of Case Research*, 1(2), 101-129.
- Khairul Akmaliah, A., & Mohd Fuaad, S. (2011). DiGi.com: Strategies for capturing market share. *Asian Journal of Case Research*, 4(1), 19-56.
- Koh, M. (2010, January 20). Maxis, Limkokwing University sign MoU. *The Edge*. Retrieved from <http://www.theedgemaalaysia.com/business-news/158043-maxis-limkokwing-university-sign-mou.html>.
- Kong, L. (2009, November 26). Connecting with the 21st century. *The Star*. Retrieved from <http://thestar.com.my/news/story.asp?file=/2009/11/26/nation/5166985&sec=nation>.
- Krippendorff, K. (2004). *Content Analysis: An Introduction to its Methodology*. (2nd Ed.) Thousand Oaks, CA: Sage Publications.
- Leong, H. Y. (2008, July 28). Competition heats up in local telecoms sector. *The Star*. Retrieved from <http://biz.thestar.com.my/news/story.asp?file=/2008/7/28/business/21927763&sec=business>.
- Leong, H. Y. (2009, November 13). DiGi unveils Turbo 3G for mobile phone users. *The Star*. Retrieved from <http://biz.thestar.com.my/news/story.asp?file=/2009/11/13/business/5101076&sec=business>.
- Loke, E. (2010, January 27). Maxis targets 30,000 customers for Unity Solutions this year. *The Edge*. Retrieved from <http://www.theedgemaalaysia.com/component/content/article/158571.html>.
- Madjdi, F., & Husig, S. (2011). The response strategies of incumbent mobile network operators on the disruptive potential of public W-LAN in Germany. *Telecommunications Policy*, 35, 555–567.

- Malaysia Broadband Overview (2010, November 22). *Point Topic*. Retrieved from <http://point-topic.com/content/operatorSource/profiles2/malaysia-broadband-overview.htm>.
- Malaysia Norway Business Council (2006). *Morten Lundal, CEO DiGi Telecommunications Sdn. Bhd. selected most successful Businessman*. Retrieved from <http://www.mnbc.com.my/www/lang/en/show.do?page=17&articleid=347>.
- Maxis Berhad (2009). *Maxis Annual Report, 2009*. Retrieved from http://www.maxis.com.my/personal/about_us/investor/annual_report_2009/MAXIS_ENG_1.pdf.
- Maxis Berhad (2010). *Maxis Annual Report, 2010*. Retrieved from http://www.maxis.com.my/personal/about_us/investor/pdf/MAXIS-Annual_Report_2010.pdf.
- Maxis Berhad (2011). *Binariang Satellite Systems Sdn Bhd*. Retrieved from http://www.maxis.com.my/personal/about_us/profile/ibinariang.asp.
- Maxis Communications (2009). In *Wikipedia, the free encyclopaedia*. Retrieved from http://en.wikipedia.org/wiki/Maxis_Communications.
- Maxis Communications 3G Pilot Network (2011). *Mobilecomms-technology.com*. Retrieved from http://www.mobilecomms-technology.com/projects/gprs_mal/.
- McDaniel, S. W., & Kolari, J. W. (1987). Marketing strategy implications of the Miles and Snow strategic typology. *Journal of Marketing*, 51(4), 19-30.
- MCMC (2004). *Industry Performance Report*. Retrieved from http://www.skmm.gov.my/link_file/what_we_do/Research/ipr/IPR%202004.pdf.
- MCMC (2005). *Industry Performance Report*. Retrieved from http://www.skmm.gov.my/link_file/what_we_do/Research/ipr/IPR%202005.pdf.
- MCMC (2006). *Industry Performance Report*. Retrieved from http://www.skmm.gov.my/link_file/what_we_do/Research/ipr/IPR06.pdf.
- MCMC (2007a). *Hand phone users surveys 2007: Statistical brief number 6*. Cyberjaya, Selangor: MCMC.
- MCMC (2007b). *Industry Performance Report*. Retrieved from http://www.skmm.gov.my/link_file/what_we_do/Research/IPR07.pdf.
- MCMC (2007c). *Selected facts and figures Q1, 2007*. Cyberjaya, Selangor: MCMC.
- MCMC (2007d). *Trends and markets in Malaysian mobile service: Industry Report (vol. 5)*. Cyberjaya, Selangor: MCMC.
- MCMC (2008a). *Communications & multimedia selected facts and figures Q4, 2008*. Cyberjaya, Selangor: MCMC.
- MCMC (2008b). *Industry Performance Report*. Retrieved from http://www.skmm.gov.my/link_file/what_we_do/Research/pdf/IPR08.pdf.
- MCMC (2009a). *Annual Reports*. Retrieved from http://www.skmm.gov.my/link_file/about_us/pdf/Web%20Update%20Annual%20Report/SKMM_Annual_Report_2009.pdf.
- MCMC (2009b). *Industry Performance Report*. Retrieved from http://www.skmm.gov.my/link_file/what_we_do/Research/pdf/IPR09.pdf.
- MCMC (2010). *Communications and Multimedia, Selected Facts and Figures, Q4 2010*. p. 27. Retrieved from http://www.skmm.gov.my/link_file/facts_figures/stats/pdf/Q4%202010%20Text.pdf.
- Meshner, G. M., & Zajac, E. E. (1997). The political economy of telecommunications in Malaysia and Singapore: A structure-conduct-performance comparative analysis. *Information Economics and Policy*, 9(3), 183-202.
- Meyer, J., & Rowan, B. (1990). Institutionalized organization: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.

- Miles, R. E., & Snow, C. C. (1978). *Organizational Strategy, Structure, and Process*. New York: McGraw-Hill.
- Miles, R. E., Snow, C. C., Meyer, A. D., & Coleman, H. J. (1978). Organizational strategy, structure and process. *Academy of Management Review*, 3(3), 546-562.
- Mohd Fuaad, S., & Khairul Akmaliah, A. (2009). Malaysian mobile telecommunications services industry and future prospects. In Aliah Hanim, M. S., Ahmad Azmi, M. A., Poon, J. M. L., & Aini, A. (Ed.), *Services Management and Marketing: Studies in Malaysia* (pp. 293-324). Bangi: UKM-Graduate School of Business.
- Mohd Fuaad, S., & Khairul Akmaliah, A. (2010). Online mobile content innovations and industry structure: Implications for firms' strategies. *International Journal of Economics and Management*, 4(1), 101-119
- New mobile operator confident of one million subscribers (2009, November 24). *The Star*. Retrieved from <http://biz.thestar.com.my/news/story.asp?file=/2009/11/24/business/20091124143936&sec=business>.
- Ninth Malaysia Plan, 2006-2010 (2006). Retrieved from http://www.parlimen.gov.my/news/eng-ucapan_rmk9.pdf.
- Parnell, J. A., & Wright, P. (1993). Generic strategy and performance: An empirical test of the Miles and Snow typology. *British Journal of Management*, 4(1), 29-36.
- Raj, S. (2007, December 13). Celcom turns to live radio to promote brand. *The Star*. Retrieved from <http://biz.thestar.com.my/news/story.asp?file=/2007/12/13/business/19736428&sec=business>.
- RIM Press Release (2006, 28 March). Maxis and RIM Launch the BlackBerry 8700g in Malaysia. Retrieved from <http://www.thefreelibrary.com/+and+RIM+Launch+the+BlackBerry+8700g+in+Malaysia.-a0143744665>.
- Sidhu, B. K. (2007, November 14). DiGi offers RM700mil for TDC's 3G spectrum. *The Star*. Retrieved from <http://biz.thestar.com.my/news/story.asp?sec=business&file=/2007/11/14/business/19464037>.
- Sidhu, B. K. (2009, August 14). A new mobile phone service to be launched. *The Star*. Retrieved from <http://biz.thestar.com.my/news/story.asp?file=/2009/8/14/business/4515776&sec=business>.
- Siti Sakinah, A. L. (2009, November 13). DiGi sees Internet as revenue growth driver. *The Edge*. Retrieved from <http://www.theedgemaalaysia.com/business-news/153593-digi-sees-internet-as-revenue-growth-driver.html>.
- Sivalingam, G. (2009). Network governance in Malaysia's telecommunications industry. Retrieved from www.hks.harvard.edu/netgov/files/NIPS/Paper_G_Sivalingam.pdf.
- Song, M. (2009a, December 28). Telco sector expected to remain resilient into 2010. *The Edge*. Retrieved from <http://www.theedgemaalaysia.com/in-the-financial-daily/156360-telco-sector-expected-to-remain-resilient-into-2010.html>.
- Song, M. (2009b, October 22). Maxis aims to double broadband subscriber base by year-end. *The Edge*. Retrieved from <http://www.theedgemaalaysia.com/business-news/151914-maxis-aims-to-double-broadband-subscriber-base-by-year-end.html>.
- Stemler, S. (2001). An overview of content analysis. *Practical Assessment, Research & Evaluation*, 7(17). Retrieved from <http://PAREonline.net/getvn.asp?v=7&n=17>.
- Tan, K. (2009, November 23). MMVB 2009: Consumer centricity at the core. *The Edge*.

- Retrieved from <http://www.theedgemaalaysia.com/management/155705--mmvb-2009-consumer-centricity-at-the-core.html>.
- TeleGeography (2007, November 13). *DiGi and TIME dotCom end two-year flirtation and announce engagement*. Retrieved from http://www.telegeography.com/cu/article.php?article_id=20500.
- The National Telecommunication Policy of Malaysia, 1994–2020 (2008, November 14). Retrieved from <http://pmr.penerangan.gov.my/index.php/maklumat-kenegaraan/262-the-national-telecommunication-policy--1994-2020-.html>.
- Thompson, H. G., & Garbacz, C. G. (2011). Economic impacts of mobile versus fixed broadband. *Telecommunications Policy*, 35, 999–1009.
- Tune Talk eyeing 400,000 subscribers (2009, November 25). *The Star Online*. Retrieved from <http://biz.thestar.com.my/news/story.asp?file=/2009/11/25/business/5176711&sec=business>.
- U Mobile launches its postpaid service (2008, April 15). Retrieved from http://corporate.u.com.my/sec_press/pdf/150407-PressRelease-U38_Plan_FINAL.pdf.
- U Mobile (2009, 1 May). *U mobile introduces its first supplementary plan and a new value added service for its postpaid subscribers!* Retrieved from <http://www.u.com.my/all-about-u/media-room/u-mobile-introduces-its-first-supplementary-plan-and-new-vas-postpaid>.
- U Mobile (2010a). In *Wikipedia, the free encyclopaedia*. Retrieved from http://en.wikipedia.org/wiki/U_Mobile.
- U Mobile (2010b, August 16). *U Mobile IDD bonanza is back with lower call rates and exciting rewards*. Retrieved from <http://www.u.com.my/media-room/press-releases/u-mobile-idd-bonanza-is-back>.
- U Mobile (2010c). *Corporate Profile*. Retrieved from <http://www.u.com.my/all-about-u/corporate-profile>.
- U Mobile (2010d). U Mobile deploy HSPA plus technology to support 42 mbps. Retrieved from <http://www.u.com.my/media-room/press-releases/umobile-deploy-hspa-plus-tech-to-support-42mbps>.
- U Mobile (2010e). *42Mbps Mobile Broadband Service*. Retrieved from <http://u.com.my/faqs/42mbps-mobile-broadband-service>.
- U Mobile's new prepaid rates calls at RM0.18/min & sms as low as RM0.03 (2010). Retrieved from <http://blog.rodger.my/2010/09/23/u-mobiles-new-prepaid-rates-calls-at-rm0-18min-sms-as-low-as-rm0-03/>.
- Williams, C. (2005). *Management*. International Student Edition (3rd Ed.) Mason, Ohio: Thomson South-Western.
- Yeap, C. (2009a, March 16). Busy week ahead for telcos. *The Edge*. Retrieved from <http://www.theedgemaalaysia.com/first/3685-busy-week-ahead-for-telcos.pdf>.
- Yeap, C. (2009b, November 5). Telenor: Big Three to be dominant. *The Edge*. Retrieved from <http://www.theedgemaalaysia.com/business-news/153017-telenor-big-3to-be-dominant.html>.
- Yin, R. K. (2009). *Case Study Research: Design and Methods*. (4th Ed.). Thousand Oaks, CA: Sage.
- Zam, K. (2009, May 12). XOX targets Chinese youth. *The Star*. Retrieved from <http://star-techcentral.com/tech/story.asp?file=/2009/5/12/prodit/3865191&sec=prodit>.
- Zita, K. (2004). *Malaysia Telecom Brief*. Retrieved from http://www.ndaventures.com/Malaysia_Telecom_Brief.pdf.
- Zita, K. (2009). *Malaysian Telekom Brief*. Retrieved from www.ndaventures.com/Malaysia_Telecom_Brief.pdf.

APPENDIX A

CASE OF MALAYSIAN MOBILE PHONE SERVICE INDUSTRY DEVELOPMENT

The development of the industry can be divided into several important phases, which are as follow:

The Early Years—Monopoly by State-owned Telekom Malaysia

Telecommunications services in the form of telephone lines and telegraphs were first introduced into the country in 1920s. Improvements in the telecommunications infrastructure led to its diffused usage within the industrial sectors and the general public throughout 1950s and 1960s. Since 1957, the phone service was operated by the Telecommunications Department. In 1987, however, this government-owned fixed line operator was turned into a public-listed company under the name of Syarikat Telekom Malaysia Berhad (STMB). One year later, it formed a mobile phone subsidiary called STM Cellular Communications, which provided a global system of mobile communication (GSM) services to Malaysians. In 1990, Syarikat Telekom Malaysia Berhad (STMB) changed its name to Telekom Malaysia Berhad (TM) (MCMC, 2004; Mesher & Zajac, 1997; Sivalingam, 2009; The National Telecommunication Policy of Malaysia, 1994-2020, 2008).

From 1957 to mid-1980s, only fixed telephone line service was available to Malaysians. This situation changed in 1984 when the first mobile phone service was offered in the country with the launching of Telekom Malaysia's ATUR mobile

telecommunications services. In 1992, TM sold some of its shares in STM Cellular Communications to Fleet Group, which later sold them to TRI Group. This new owner changed the company's name to Celcom (Mesher & Zajac, 1997; Sivalingam, 2009).

The Implementation of Malaysian Telecommunications Policy—the Emphasis on Industry Growth

Beginning in early 1990s and through its National Telecommunications Policy (1994-2020) implementation, the Malaysian government started to emphasize the need for high growth within the telecommunications sector. Its aim was to transform the sector into one of the major vehicles to achieve Malaysia's developed country status by 2020. As a part of this policy intervention, licenses were given to companies involved in various segments of the sector, including mobile phones, pagers, and related services (Ninth Malaysia Plan, 2006-2010; The National Telecommunication Policy of Malaysia, 1994-2020, 2008; Zita, 2004).

By 1995, six more new mobile telecommunications service providers (telcos) entered the market, making the total number of players to seven. These service providers included Telekom Malaysia, Celcom, Maxis, Mobikom, Mutiara Swisscom (later renamed DiGi), Sapura

Digital and Time Wireless (Zita, 2009). Of these seven, two faced bankruptcies during the financial crisis of 1997 and 1998, and with the Malaysian government insistence, they had merged with other telcos with stronger financial standing. This reduced the number of telcos to five, i.e. Celcom, DiGi, Maxis, TMTouch and TIME. In 2003, TIME sold its mobile business to Maxis, whereas ongoing internal problems resulted in Celcom being acquired by Telekom Malaysia (Alphonse, 2004; Mesher & Zajac, 1997). Celcom was a public listed company on the Bursa Malaysia, and after the acquisition, Celcom became a private operator under Telekom Malaysia (Celcom, 2010).

The Rapid Industry Growth and its Oligopolistic Formation

By 2004, the industry had consolidated further into three players comprising Celcom, Maxis and DiGi. This was the result of two events: the first event was Celcom's new parent company, Telekom Malaysia, merging Celcom with its mobile service subsidiary, TMTouch; and, the second event was DiGi's acquisition of TIME (Alphonse, 2004; MCMC, 2005; Mesher & Zajac, 1997). This period marked the beginning of an intense competition within the industry. On the whole, as a result of the combined operations of Celcom and TMTouch under Telekom Malaysia, there were a total of four telecommunication providers in 2004: Telekom Malaysia (which included Celcom), DiGi, Maxis and TIME. Telekom Malaysia directed its effort

on the fixed line business, while allowing its subsidiary, Celcom, to concentrate on the mobile business. Similarly, DiGi and Maxis were also focusing on the mobile business, while TIME served mainly wholesale and corporate mobile customers (MCMC, 2004; 2005).

In regard to fixed telephone line services, several new players joined the industry in late 1990s. By 2004, however, only TM, Maxis, TIME and DiGi were still running fixed line operations. This number was further reduced to three in 2006 when DiGi exited the fixed line market. In regard to the control of the fixed line market, by 2003, TM held a major revenue share, which was at 86% in 2004; 88% in 2005; 90% in 2007 and 2008; and 91% in 2009; with the remaining percentage was shared between TIME and Maxis (MCMC, 2004; 2005; 2006; 2007b; 2008b; 2009b). Since 1988, the number of mobile phone users was rising at an exponential rate, leading to it surpassing the number of fixed-line phone users by the year 2000 (MCMC, 2007d). From 2000 to 2008, the number of mobile phone users increased at an average rate of 8.6% per year. By the first quarter of 2009, the percentage of Malaysian mobile phone subscriptions over the total population exceeded the 100% mark, which was at 100.1% and by the end of 2009, the number increased further to 106.2% (MCMC, 2009b).

The second mobile phone service provider, Maxis, was a subsidiary of Usaha Tegas. It was established in 1993 and began to offer its mobile phone service in 1995.

The company was then listed on Bursa Malaysia in 2002 (Maxis Communications, 2009). DiGi, the third mobile phone service provider, began its operation in 1995 as Mutiara Swisscom, and was the first telco in Malaysia to offer a fully digitalized network service. In December 1997, the company was listed on Bursa Malaysia and had its name changed to Mutiara Swisscom Bhd., and later to DiGi Swisscom Bhd. In January 1998, DiGi became the first telco to offer the prepaid service to its mobile phone service customers. Maxis and Celcom, its two main industry rivals, followed suit later in the same year. In October 1999, DiGi entered into an agreement with e-Pay Malaysia to utilize the latter's network of terminals to boost its visibility and expand its prepaid customer base. Within six months, in April 2000, this move was imitated by Maxis and Celcom (Carlsson, 2008; Khairul Akmaliah, Mohd Fuaad, Shamshubaridah, & Hänninen, 2008).

In September 2001, DiGi was transformed into a Malaysian-based foreign-owned mobile telco when Telenor ASA took over the control of its management with the purchase of 61% of its shares (Carlsson, 2008). In June 2002, DiGi began offering its Automatic International Roaming and General Packet Radio Services (GPRS), and started collaborating with Citibank and MOL AccessPortal Bhd to offer an electronic alternative for its prepaid subscribers to buy their reload credits. In August 2003, DiGi's mobile service subscribers increased to two millions, and as a part of its efforts to retain this growing customer base, it began

offering a new postpaid package that can self-adjust the service rates.

The Introduction of 3G Services

In 2003, Maxis and Celcom were granted licenses by the Malaysian government to operate 3G services ("Maxis Communications 3G Pilot Network", 2011). Later, in the middle of the same year, DiGi introduced user-downloadable online statements, as well as the Enhanced Data Rates for Global Evolution (EDGE) technology to its customers, which were parts of an improvement on its GSM solution (DiGi.Com Berhad, 2009b). In 2004, Celcom intensified its marketing efforts, lowered its SMS rates, introduced cheaper starter packs, which contain the SIM card that was needed by subscribers to initiate and use its prepaid service, and offered upgraded versions of prepaid services to capture new customers. By the end of 2004, the *subscriber* market shares for the three players were as follows: Maxis 41.7%, Celcom 36.1%, and DiGi 22.2% (MCMC, 2009b). During 2004, Maxis via its sister company, Binariang Satellite Systems, began to utilize the third MEASAT satellite to create data networks that enable it to serve Malaysian customers in diverse geographical areas. Its sister company had previously launched MEASATs 1 and 2 in 1996) (Maxis Berhad, 2011).

In the second quarter of 2005, both Celcom and Maxis became the first telcos to introduce 3G mobile phone service in Malaysia (Celcom, 2010; Maxis Communications, 2009), and, later, in

mid-2006, Celcom became the first mobile telco to offer 3G HSDPA broadband service (Malaysia Broadband Overview, 2010). In September of the same year, Maxis imitated Celcom's action by offering its 3.5G (HSDPA) broadband service. TIMEdotcom was also granted a 3G license in the same year, thus increasing the number of license holder for this technology to three. Maxis and Celcom's 3G broadband services, which targeted home and consumer users, utilized a 3G packet-based mobile telephony protocol and a High Speed Downlink Packet Access (HSDPA) technology (Malaysia Broadband Overview, 2010; Maxis Communications, 2009). By the end of 2006, Maxis and Celcom 3G services came in two packages: a) *Integrated 3G services*, which enable customers who owned devices with 3G capabilities to have more efficient voice and video communications as well as Internet access; and b) *Modem-based 3G broadband services*, which allow customers who used dongles attached to their notebooks, to access Internet.

In November 2005, DiGi, which had yet to own a 3G license, submitted an application for the licence to the Malaysian Communication and Multimedia Commission (MCMC). In the same month, DiGi began to reduce the price of its prepaid starter packs, from RM9.90 to RM8.50.

The availability of 3G services in Malaysia resulted in an increase in postpaid service subscription. Within the mobile phone services, the number of prepaid service subscriptions continued to rise since its introduction in 1998. By the year

2000, the number of postpaid and prepaid subscriptions was almost equal. Since 2001, the continued growth in the number of the prepaid subscribers resulted in it to exceed that of the postpaid customers. By the end of 2008, the prepaid service had 80.14% (22.169 million) of total subscription, while postpaid service had 19.9% (5.544 million). However, the growth of the prepaid market began to decline in 2004, while that of the postpaid market accelerated, and by the end of 2009, the postpaid market had taken over 1% of the prepaid market share. The increase in size of the postpaid market could be attributed to the increase in the use of Internet amongst mobile phone users, which led to, among others, prepaid customers switching to postpaid service. Unlike prepaid customers, whose usage of the services were constrained by the amount of credit available in their account, postpaid customers paid their bills after utilizing the service, thus their service usage, including accessing the internet, was generally not as restricted (Business Monitor, 2009b; Goh, 2008g). The increase in postpaid service subscription was also due to the decrease in price of advanced mobile devices that support internet connectivity, as well as the high availability of 3G Internet connections.

Since 2006, the three mobile phone service companies competed fiercely in terms of market share, product offering, and pricing (MCMC, 2007d). Generally, a telco's market share is measured in two ways; a) its *revenue* market share, which is the amount of revenues earned by each

company, divided by the total amount of revenues accumulated by all companies, and b) its *subscriber* market share, which is the number of subscribers of each company, divided by the total number of subscribers for all companies.

The overall Average Revenues per User (ARPU), or amount of revenues generated by a telco over the number of its subscribers, for all three mobile phone service companies had continued to drop since 2003, from 241 in 2003, to 222 in 2004, to 173 in 2005, and to 171 in 2006 (Khairul Akmaliah & Mohd Fuaad, 2011).

The Growth of 3G and Smartphone Services

In February 2006, Celcom's parent company, TM Berhad, sealed a partnership deal with Vodafone, which enabled Celcom and its sister companies to access international voice and data roaming technologies, including Blackberry (Fauziah Muhtar, 2006). In the following month (March 2006), Maxis, in collaboration with Research in Motion (RIM), launched Blackberry solutions for its corporate and retail customers (RIM Press Release, 2006). In the same month (March 2006), DiGi's 3G license application was turned down, which was probably due to it being a foreign-controlled telco, with Telenor-- a Norwegian-based telecommunications conglomerate, owning the majority of its shares (Sidhu, 2007). In April 2006, DiGi made a second bid for the 3G license, which was again rejected, even though two other applicants, TimedotCom and MiTV (which later changed its name to U Mobile) were granted licenses. In July

2006, DiGi requested for a license to offer Internet services using WiMAX technology (Goh, 2007b), however, this application, together with those from Celcom and Maxis, was also turned down. On the other hand, in September 2006, Celcom's strategic alliance with Vodafone resulted in it launching a BlackBerry Enterprise Server, which targeted enterprise (SMEs) and corporate markets (Celcom to distribute Blackberry Pearl, 2007). In October 2006, DiGi introduced a new postpaid family plan, and a month after this launching, the company started its Yellow Fellow Coverage campaign (Carlsson, 2008).

Even though not offering 3G and WiMAX services, DiGi had expanded its *subscriber* market share from 19.8% in 2003 to 27.2% at the end of 2006, with Maxis and Celcom's market share at the time were at 42% and 31%, respectively (MCMC, 2009b). By the end of 2006, DiGi group revenue was RM3.652 billion (increased from RM2.884 billion in the previous year), and turned its operating losses (from 2003 through 2005) into profits of RM1.09 billion (Goh, 2008b; Malaysia Norway Business Council, 2006). During the same period, Celcom's revenue was RM4.4 billion, while Maxis' was RM7.71 billion (MCMC, 2007b).

Corporate Restructuring of TM (Celcom) and Maxis, and the Awarding of 3G License to DiGi

By mid 2007, Celcom had sealed deals with three mobile virtual network operators (MVNOs), Merchantrade Asia, REDtone International, and TuneTalk. In these

partnerships, Celcom opened its network infrastructure to the MVNOs to enable them to offer their respective mobile services. These arrangements not only brought in side revenues to Celcom, they also provided Celcom with the opportunity to gain more brand visibility, and helped the company maximise the usage of its network capacity (Raj, 2007). In June 2007, the company launched its Blackberry Internet Service smartphones to individual users, which was the first such service in the country ("Celcom to distribute Blackberry Pearl", 2007).

At the 2007 Frost & Sullivan Malaysia Telecoms Awards, TM and Maxis were jointly presented the Service Provider of the Year Award. In April 2007, Binariang GSM Sdn Bhd (the parent company of Maxis) offered to buy back the entire remaining shares of Maxis for RM17.46 million, reportedly, in its efforts to support its operations in India and Indonesia. Consequently, Maxis was delisted from Bursa Malaysia in July 2007.

In November 2007, DiGi was given the approval by the Malaysian government to obtain a 3G license, transferable from TimedotCom. In return for its 3G license, the latter was to receive a 10% stake in DiGi, or 27.5 million shares valued at RM649 million. Meanwhile Telenor's control of DiGi was to be reduced to 49%. This arrangement, which transformed DiGi into a Malaysian-owned business entity, satisfied the regulatory requirement for its 3G license operations (TeleGeography, 2007). With the 3G technology upgrade,

DiGi could improve its existing mobile phone services by offering video calls, and providing a more efficient Internet access, as well as introducing new Internet broadband services. The process of transferring the 3G license from TimedotCom to DiGi was completed in January 2008, and by mid 2008, the share swap from DiGi to TimedotCom was concluded ("DiGi, Time trading suspended", 2008; Goh, 2008c).

While DiGi's early strategy was to focus on prepaid customers, beginning in mid 2000, it began to make a vigorous push into the postpaid market. This organized move began in 2007 with the introduction of DiGi 1Plan (DiGi.Com Berhad, 2009b). In December 2007, DiGi launched its *Happy* Prepaid service as an experimental MVNO project by offering comparatively lower standard call rates, and targeting mainly those who have yet to use mobile phone service. Analysts viewed the launching of *Happy* as DiGi's response to impending competitions resulted from the entry of new MVNOs, such as TuneTalk, which would move into DiGi's prepaid market domain ("DiGi's 'Happy' to defend", 2007; "DiGi wants customers", 2007).

By the end of 2007, DiGi's revenues continued to rise to RM4.36 billion, from RM3.652 in the previous year (Goh, 2008b; Malaysia Norway Business Council, 2006), while Celcom's revenue grew from RM4.4 billion (2006) to RM5 billion, while Maxis' revenue was RM9.06 billion (MCMC, 2007b).

Between September 2007 and March 2008, Telekom Malaysia Bhd (TM)

underwent a corporate restructuring effort, which resulted in TM grouping its businesses into two entities, TM and TM International. Since then, TM International was comprised of Celcom and TM other regional mobile business units. In April 2008, TM International was listed on Bursa Malaysia, and changed its name to Axiata Berhad. Celcom, being a subsidiary of Axiata Berhad, was renamed as Celcom Axiata Berhad (Axiata Group Berhad, 2010). In the third quarter of 2008, Celcom introduced BlackBerry Bold Smartphones and its Celcom Power Tools Mobile Email Plans; Celcom then had a total of 8.254 million subscribers (Celcom, 2010). Since 2005, Celcom's 3G coverage had been expanding rapidly, and by 2010, it reported a 95% 3G mobile service coverage in most areas in Klang Valley, Johor Bahru, Melaka, Kulim and Penang (Celcom, 2010).

By the end of 2007, the control for *subscriber* market share began to slowly reach parity for the three mobile phone companies, with Maxis at 42%, Celcom 31%, and DiGi 27% (MCMC, 2007b). At the end of 2007, Maxis's subscriber number increased to 9.7 million or 41.6% market share from 8.1 million subscribers (or 41.5% subscriber market share). Its numbers were 4.5 million (or 40.5% market share) in 2003, 6 million (41.7%) in 2004, and 7.9 million (40.3%) in 2005. DiGi's number of subscribers at the end of 2007 was 7.1 million (27.5%), which increased from 2.2 million (19.8%) in 2003 to 3.2 million (22.2%) in 2004, to 4.8 million (24.5%) in 2005, and to 5.31 million (27.2%) in 2006.

Celcom's subscription was registered at 7.2 million (31%) in 2007, which increased from 6.1 million (31.3%) in 2006, and 6.9 million (35.2%) in 2005, 5.2 million (36.1%) in 2004, and 4.4 million (39.6%) in 2003 (MCMC, 2007b).

Industry-wise, in 2007, the combined (group) revenue of Celcom, Maxis and DiGi was RM18.42 billion, which had increased from RM9.991 billion in 2003. This points to an average increase of market growth revenue of RM1.686 billion per year (or 16.87%) from 2003 to 2007. DiGi recorded losses from 2003 to 2005, while Celcom too was in the red in 2005, but all three telco made profits in 2006, 2007, and 2008 (Mohd Fuaad & Khairul Akmaliah, 2009). As of 2007, Malaysians mostly utilized mobile phone for voice calls, SMSs and MMSs, while other data services usage, including Internet access via mobile phones, was quite low, which was at 14% (MCMC, 2007a; 2007c). This low utilization rate could be due to the use of low-end mobile devices among the majority of subscribers at that time, and for the prepaid customers, their mobile Internet usage was further constrained by the amount of prepaid credit they had.

Entry of U Mobile and Implementation of Mobile Number Portability

In March 2008, an industry newcomer, U Mobile launched its 3G broadband service, *Surf with U*, and this was followed by the introduction of its postpaid mobile phone service in April 2008. Shortly thereafter, in July 2008, it began offering its prepaid

service (U Mobile, 2010a). This increased the number of mobile phone service companies in Malaysia to four, and further intensified their rivalry in the mobile phone and broadband services markets. With its entry, U Mobile implemented a number of substantial promotions, such as charging the lowest fee for postpaid service and offering a two-month free subscription for its 3G broadband service to capture some market shares from the three incumbents (“U Mobile launches”, 2008). In July 2008, which was in its fourth month of operation, U Mobile accumulated 100,000 combined subscribers for its postpaid and prepaid services (U Mobile, 2010a). By the end of July 2008, U Mobile introduced two additional postpaid services to attract more customers.

By March 2008, DiGi’s postpaid customers had increased by nearly half, which was about twice the postpaid market growth rate of 21% of that time. In June 2008, DiGi’s net profit increased by about 19% from the preceding year to RM589 million. According to the company, this growth was attributed to a greater amount of mobile airtime used by its subscribers, which was resulted from its innovative offerings (“DiGi first-half”, 2008). To maintain the growth of its postpaid market, in July 2008, the company introduced its expanded postpaid package, which serviced both the infrequent and the regular subscribers. This latest offering reflected its careful market segmentation, and was different from the earlier DiGi’s Postpaid 1Plan package. The latter, which was offered to the market a year earlier, was designed

to cater to all customers, regardless their demographic differences (Goh, 2008d). These efforts were believed to be a part of DiGi’s strategy in handling the threat of Mobile Number Portability introduction at the end of 2008 (Goh, 2008f). In September 2008, as a part of its customer retention strategy, DiGi provided its complimentary RM10,000 personal accident insurance package to those who had been subscribing to it services for at least three months (“DiGi: Plan for 3G”, 2008). By the third quarter of 2008, DiGi’s percentage for the postpaid market share began to rise from 7% in 2005 to 16% (Business Monitor, 2009a).

With the impending introduction of Mobile Number Portability at the end of the 2008, by middle of that year, all mobile phone companies braced themselves for an even greater competition. As the industry was expecting more customer migrations from the prepaid service to the postpaid service, all mobile phone service companies began to aggressively offer new services and implement heavy promotions in their respective postpaid segment. Maxis started to repackage its postpaid plans and introduce a new prepaid service, called *Hotlink365*, which specifically catered the low usage segment. Maxis’ *Hotlink365* was soon imitated by DiGi through the introduction of its new extended prepaid plan. There was an industry rumour circulating about Maxis’ plan to bring iPhone into the country. The newest mobile telco, U Mobile, which by then had attracted 100,000 subscribers, also started to offer three new postpaid services (Leong, 2008).

By then, DiGi had launched four new postpaid plans, with one offering subscribers, to any network at anytime, text messaging and free local voice calls (Leong, 2008). DiGi had also established porting centers and waived the porting fees to enable competitors' subscribers to easily switch to its services. It also opened up its 1Low Flat Rate to all other lines used by its subscribers. By October 2008, the company announced a 44% increase in the number of its postpaid subscribers (850,000) from mid 2007 to mid 2008 (DiGi.Com Berhad, 2008; 2009b; Goh, 2008f). A month later, with the introduction of the Mobile Number Portability, DiGi assigned 1,000 staff members to market its services (DiGi.Com Berhad, 2009b). In the same month, it also began opening retail concept stores. All these were in addition to its heavy investments to upgrade its network infrastructure to increase service quality throughout 2008 ("DiGi launches", 2008; Goh, 2008a).

The competition was further intensified when the Mobile Number Portability was introduced to Malaysian subscribers on October 15 2008. Mobile Number Portability, which allows subscribers to replacing service operators without changing their phone numbers, was expected to intensify customer-pinching and price-cutting war within the industry (Song, 2009a).

In 2008, DiGi's MVNO Happy Prepaid appeared to be changing its strategy from offering low costs prepaid to all, to providing services in areas where it lacked visibility. By 2009, Happy was re-launched in the East

Coast states of Kelantan and Terengganu with the aim of doubling Happy's market share by mid 2012 (Business Times, 2011). By December 2008, DiGi.Com Berhad, with its shares traded on Bursa Malaysia, was an investment holding firm with two subsidiaries: a) DiGi Telecommunications Sdn. Bhd. (DTSB), which was responsible for establishing, maintaining and providing telecommunications and related services; and b) Pay By Mobile, which handled the remittance of fund, and provided services and products that use online payment as their main method of transaction. DTSB, in turn, operated a subsidiary, DiGi Services, which was responsible for property management and renting, and other related activities. The other subsidiary, Djuiice.Com, was at that time an inactive business. From 2006 to 2008, DiGi was voted the Most Innovative Company in Malaysia by the Wall Street Journal Asia (DiGi.Com Berhad, 2008; 2009c).

By the end of 2008, the *subscriber* market share, with a total of 27.8 million subscriptions, showed a slight change in ownership compared to the previous year, with Maxis at 40% (11.1 million), Celcom at 31.7% (8.8 million) and DiGi at 25.5% (7.1 million), while U Mobile had a 2.9% market share (0.8 million). The ARPU for the three major mobile phone service companies figure increased to 188 in 2007, but decreased to 172 in 2008. From 2005 to 2008, they also had an almost similar number of combined ARPU for both prepaid and postpaid services (Khairul Akmaliah & Mohd Fuaad, 2011).

Entry of MVNOs and Subscription Maturation

In the first quarter of 2009, Maxis partnered with Malaysia Airlines and AeroMobile to enable its postpaid customers to use their mobile phones on certain flights. At that time, the company also became the first telco to offer iPhone 3G 8GB and 16GB services to the Malaysian market, and this was followed by its introduction of iPhone 3GS in the third quarter of the same year (Maxis Berhad, 2009). By late March 2009, Celcom's and Maxis' market shares of mobile phone services were fairly stable at 32.5% and 42.1%, respectively, while DiGi recorded a small decline to 25.4%, compared to its percentage of the market share at the end of 2008 (Business Monitor, 2009b, p. 24). As of the same period, the three major mobile telcos offered similar pricing and number of prepaid and postpaid service packages.

In March 2009, U Mobile launched its first International Direct Dialing (IDD) service for its prepaid subscribers, which offered low call rates to fixed and mobile line users in selected foreign countries (U Mobile, 2010a; 2010b). Later in May 2009, U Mobile introduced two postpaid services, one of which offered up to four supplementary lines, while the other allowed free calls within its network, at a low fee (U Mobile, 2009) and by October 2009, it launched its new 3G broadband service (U Mobile, 2010a).

In March 2009, DiGi launched its 7.2Mbps 3G broadband service, which, at that time, was the highest access speed

for a 3G mobile broadband available to subscribers in Malaysia. DiGi also offered a 10GB monthly bandwidth to its customers at a lower service fee compared to other mobile service operators (Yeap, 2009a). In July 2009, DiGi started offering its Blackberry packages to corporate and retail customers (DiGi.Com Berhad, 2009a). Over the years, DiGi continuously upgraded its prepaid and postpaid services, and progressively developed its data services, including its mobile-TV, -podcasts, -remittance, -chatting, -online music tools, and -music exchange amongst its customers (DiGi.Com Berhad, 2009b).

In April 2009, Maxis launched its Hotlink Youth Club plan, which targeted prepaid service users among college students. During the second quarter of 2009, through partnerships with Nokia, Visa, Maybank and Touch 'n Go, Maxis introduced its integrated mobile payment services, which enabled customers to purchase and make transactions using mobile phone devices. In the same quarter, Maxis offered BlackBerry Storm smartphone to its customers, which enabled them to efficiently navigate and conveniently access Internet social networking sites (Maxis Berhad, 2009).

In May 2009, DiGi.com launched its 3G service in Sabah and Penang as a part of its substantial expansion plan to enable its broadband service to reach a greater number of Malaysian customers ("Broadband competition intensifying", 2010). By the end of June 2009, Celcom had 420,000 3G broadband users; Maxis 171,200, and DiGi

11,000 (“Cover Story..”, 2009). By the end of 2009, Maxis intended to double the number of its broadband subscribers, while Celcom planned to have a 120% broadband market growth in the same year (“Celcom targets 120% growth”, 2009; Song, 2009b). As Maxis and Celcom had launched their 3G broadband services in 2006, they were able to build a substantial size of customer base before DiGi and U Mobile were able to do so. Moreover, there were also wireless Wi-Fi and WiMAX service providers, and wired operators in the broadband market, which also competed against the three mobile telcos.

Moreover, at that time, many existing broadband customers were hand-cuffed by a 12-month contract when subscribing to a particular service. This made the potential subscriber switching costs steep, thus making it difficult for new broadband providers to penetrate the market. In the case of DiGi, however, with Telenor as its parent company, it could take advantage on the latter’s know-how in running 3G networks in other countries (“DiGi CEO Johan Dannelind”, 2009; “DiGi: Mobile communication”, 2008). U Mobile, the other 3G latecomer, also had a strong backer, as it was a part of a resource-rich conglomerate. The two WiMAX broadband players, P1 and REDtone, were also belonged to resource-rich holding companies, respectively.

In October 2009, Maxis launched its ‘mobile money transfer service’, which was jointly operated with Western Union, to allow its 11 million subscribers to send money directly to accounts in foreign

countries using their mobile phone. In November 2009, DiGi introduced Turbo 3G services, which improved the quality of voice and SMS transmissions and Internet access for its subscribers. By then, its 3G Internet PC broadband service had attracted nearly 30,000 customers, but it was still hampered by transmission coverage problems. The company’s coverage was limited to about 59% of the Klang valley area, and less than 50% of the country geographical area (Leong, 2009; Siti Sakinah, 2009).

In mid 2009, several new Mobile Virtual Network Operators (MVNOs) began offering their mobile phone services. These services were provided via telecommunications networks supported by the established telcos, and each of these MVNOs aimed to be a niche player within its own market segment. For examples, XOX Com, which began operation in May 2009, planned to turn one million Malaysian ethnic Chinese youth into its customers, while TuneTalk, another MVNO had a goal of attracting 400,000 users, specifically migrant workers and International Direct Dialing customers (“New mobile operator”, 2009; Sidhu, 2009; 2010; “Tune Talk eyeing”, 2009; Zam, 2009). The other two MVNOs were REDtone and Merchantrade, with the former offering its postpaid plan to enterprise (SMEs) and corporate customers, while the latter providing prepaid international direct dialling (IDD) call services. These four MVNOs were dependent on Celcom to provide them with network infrastructure. In this regard, being the service wholesaler, Celcom received a certain percentage of fees

from the MVNOs' businesses. At this point of time, Maxis' MVNOs had yet to launch their services. Therefore, unlike Celcom and Maxis, DiGi did not gain any advantage from the entry of MVNOs. Instead, these new players posed a certain level of threat to its business, especially in the prepaid market (Axiata Group Berhad, 2010).

All mobile phone companies, however, faced increasing infrastructure and operations costs, which involve maintaining and upgrading telecommunications infrastructure, such as telecommunications towers, switching units and other required hardware and software. These costs require mobile phone companies to have a solid financial standing to support their future growth. Moreover, the increasing convergence of mobile and Internet technologies and fierce competition with competing broadband technologies might also pose operational difficulties to these companies in the future. On the other hand, this technology convergent may also open new opportunities for them to expand their operations.

An important instance is the *integrated 3G service* market, which has a high growth potential mainly due to the reduced price of 3G-enabled mobile phone devices and smartphones. This in turn allows more mobile phone subscribers to purchase them and utilize the 3G and other advanced services provided by mobile phone companies. This, combined with the industry players' continuous upgrading of their 3G infrastructures, enables a faster and more reliable mobile transmission

and higher value-added services, to their customers. The reduction of phone price and the upgrading of 3G services significantly improve customers' service experiences and emotional attachments.

This is already evident in the increase in the number of 3G subscriptions in the past several years. While only 1.56 million (6.7%) users of the total 23.3 million mobile phone users subscribed to the 3G services by the end of 2007, this number had increased to 4.4 million users (15.9%) of the overall 27.713 million users by the end of 2008 (Goh, 2008e; MCMC, 2008a). Of these 4.4 million 3G users, 46% (2 million) were postpaid users, while the remaining 54% or 2.4 million users were prepaid subscribers (MCMC, 2008a). As the number of customers who were able to access more advanced services increased, the overall data services usage also grew, which could translate into the increase in the mobile phone companies' revenues.

In November 2009, Maxis offered its shares again on Bursa Malaysia (after its withdrawal in July 2007), and listed itself as Maxis Bhd. In March 2010, TM launched its UniFi High Speed Broadband Service; therefore, by March 2010, within the consumer/retail market, there were many broadband service providers, which comprised both the wired and wireless providers. Their broadband services however, were very closed substitutes. Besides, there were broadband players which focused exclusively on corporate customers. By the end of 2008, the demand for fixed (wired) broadband was the highest

among broadband service subscribers, with about 76% (1.3016 million users) of them (1.7181 million users) using it, while the rest, or about 24% (0.4165 million), favoured the wireless service. By the end of 2009, however, wired broadband users had decreased to 59%, while wireless broadband subscribers jumped to 41% from a total of 2.6203 million users (MCMC, 2009a). As mobile phone companies only had licenses to run 3G broadband services and not other types of broadband technologies, they as a group do not have the upper hand in controlling the broadband service industry.

By the end of 2009, the total number of mobile phone subscribers reached 30.4 million. At that time, Maxis' subscription was 12 million customers at 39.6% market share, which increased from 11.1 million (40%) in 2008. In the same period, U Mobile's recorded 300,000 customers or 1% market share, in comparison to 800,000 (2.9%) in 2008 (MCMC, 2009b). DiGi subscribers were 7.7 million or 25.4%, in comparison to 7.1 million (25.5%) in 2008, while Celcom's number was at 10.4 million (34.2%), which increased from 8.8 million (31.7%) in 2008 (MCMC, 2009a; 2009b). By the end of 2009, mobile phone subscriptions surpassed the 100% mark, at 106% (MCMC, 2010).

Late 2010 and Beyond

At the end of 2010, Celcom, with about 120,000 subscribers, was the leader in the BlackBerry smartphone market in Malaysia. In that same year, Celcom had already launched three (out of four) new

BlackBerry devices and introduced its new prepaid plan, Xpax BlackBerry Messenger. It also became the first to introduce other smartphone packages, including Nokia C3, LG Optimus 7, and the latest Windows Phone 7. Moreover, the company had also offered a new incentive scheme that focused on building depth of customer usage and increasing the duration of their subscription, aimed at increasing subscriptions of its postpaid and prepaid customers. By the end of 2010, Celcom had achieved a 40% increment in its gross prepaid subscription, mainly through the increase in its foreign workers segment. By then, Celcom's four MVNOs business revenue contribution had almost double their contribution in the previous year, along with the number of their subscriptions, ending the year with about 600,000 customers (Axiata Group Berhad, 2010).

Celcom's revenue increased from RM6.3 billion in 2009 to RM6.9 billion by the end of 2010, which it associated to its mobile broadband business. By then, its mobile phone subscription increased by 10% to 11.2 million subscribers, which the company attributed to its focus on continuous improvements of its networks infrastructure, execution of the segmented marketing strategy (including youth and foreign workers), as well as improvements in its sales and distribution channel and its customer service quality. At the end of 2010, Celcom announced its transformation plan that aimed toward supporting its goal to become the number one provider of mobile voice and broadband services in

Malaysia. This plan was expected to involve strengthening its networks collaborations, extending its intelligence and branch networks with the target of improving customer experience, as well as expanding its enterprise (SMEs) and corporate businesses (Axiata Group Berhad, 2010).

Meanwhile, by the end of 2010, Maxis reported that its strategic plan for 2011 was a three-pronged approach, which involved (a) maximizing its voice business; (b) securing data access leadership and penetration; and (c) delivering products and services beyond telecommunications. In view of the stagnating voice revenues and the high-growth of Internet content and services, starting in 2009, Maxis planned to transform itself from a “mobile service company” into an “integrated communications service provider”. In executing this plan, among others, Maxis pledged to improve its performance, make investments to sustain its revenue streams, including investing in areas of networks and operations; form and strengthen collaborations with key entities within the ‘integrated communications ecosystems’; and implement prudent financial management (Maxis Berhad, 2010).

In December 2010, Maxis entered into a collaborative deal with TM to provide High Speed Broadband Service. At that time, Maxis recorded a mobile phone subscriptions of 14 million, reported to be the largest subscription base in the industry; of this number, 40.1% subscriptions were prepaid, while 47.5% were postpaid (Maxis Berhad, 2010). Maxis’ mobile phone

services achieved a 42% *revenue* market share (in comparison to 42% in 2009, and 43% in 2008). Utilizing its 3G/HSPA network services, which had covered 76% of Malaysia, and its 2G networks, accessible by 95% of the population, it had able to gather 600,000 broadband subscriptions (Maxis Berhad, 2010).

Meanwhile in 2010, DiGi was voted by Asian Sustainability Rating as the best company in Malaysia, the number one telco in Asia, and the 11th best company in Asia. DiGi was also ranked among the top ten companies of the year by a Malaysian business magazine. By the end of 2010, DiGi captured a market share of 25.6% in the mobile phone market. In its Annual Report 2010, DiGi described its growth was driven mostly by the increase in its, a) customer acquisition; b) data (Internet and broadband services) and smartphone offerings; and c) prudent cost saving measures. Through its continuous investment, DiGi achieved a 50% mobile Internet and broadband network coverage of populated areas by the end of that year. It aimed to increase its coverage to 60% by the end of 2011.

By the end of 2010, DiGi had 211,000 broadband subscribers and 8.8 million mobile phone customers, with 4.2 million of them were 3G mobile Internet users. By then DiGi’s ARPU for postpaid was RM83, prepaid was RM46, and their combined figure was RM52. It had also achieved 50% population coverage for its 3G/HSPA and had begun collaboration with Celcom to increase and upgrade its transmission networks. DiGi’s Group revenue for 2010

was RM5.4 billion, an increase of 10.1% compared to the previous year (DiGi.Com Berhad, 2010; 2011).

In 2010, DiGi also conducted a number of innovative marketing campaigns in its prepaid and postpaid mobile phone services, which enabled it to boost its customer base. DiGi had also entered into several collaborative partnerships to boost its growth, and, according to the company, this could lead to the overall growth of Internet and broadband industry in the country. In going forward, DiGi considered mobile Internet as the driving factor of its growth, and to exploit this opportunity, it planned to focus on improving the quality of its mobile Internet and broadband services, strengthening its sales and distribution channels, introducing new products and services, and implementing a differentiation strategy to enable provision of good experience to its customers (DiGi.Com Berhad, 2010).

Meanwhile, by the end of 2010, U-Mobile, which remained a private operation, had revamped its prepaid service packages, charging a flat rate for all domestic calls, and lowering its SMS rates (U Mobile, 2010a; “U Mobile’s new prepaid rates”, 2010). By then, the company had also upgraded its broadband offering to Dual-Carrier High-Speed Packet Access (HSPA) (U Mobile, 2010a; 2010c; 2010d; 2010e). These actions indicated the company’s stronger move into the industry.

By the end of 2010, the competition in the Malaysian telecommunications market was getting ever more intense, with the

mobile phone service providers offering similar products and comparable pricing. The market was getting crowded with the entry of U Mobile and the MVNOs, as well as other new broadband players. Moreover, mobile phone subscriptions had increased further to 117% compared to late 2009, which was at 106%, while the number of broadband subscription was at 55.6%, which was also an increase from 38% at the end of second quarter 2010 (MCMC, 2010).

As consumer subscription reached maturation, it can be expected that the enterprise (SMEs) and corporate market in both mobile voice and Internet services will play a greater role in contributing toward the companies and industry growth (“Cover Story..”, 2009). Over the years, all three mobile phone companies had employed various strategies and had heavily marketed their mobile solutions, including their smartphone offerings, to enterprise (SMEs) and corporate customers, with each expecting high growth sales in this market segment (“*AmAssurance, DiGi bantu ejen insurans*”, 2008; “Cover Story..”, 2009; DiGi.Com Berhad, 2009b; Goh, 2007a; Koh, 2010; Loke, 2010; Tan, 2009).

While the broadband service market was a challenging one for mobile phone companies due to the large number of competitors, including Wi-Fi, WiMAX, or fixed providers like TM, as a group, these mobile phone companies still had the upper hand against other groups of broadband service provider. Most importantly, their monopoly on the mobile service through which they offered their smartphones

packages (which had Internet services embedded into the customers' mobile phone services), enabled them to conquer the Internet market as well. These were more ubiquitous technologies compared to the cumbersome PC-based Internet access technologies, which were the most common media utilized by Malaysian customers to access Internet broadband services (Yeap, 2009b). In any case, all broadband service providers were under pressure to improve their services, as the government was planning to have a 100% broadband coverage for the entire country by the year 2015. Among others, the Malaysian government had offered many inducements and tax-relief plans to both broadband service operators and their customers (Kong, 2009). These actions were expected to rapidly increase broadband service usage in the near future, but the main question remains if mobile phone providers would emerge as the big winner.

By the end of 2010, the telecommunications war appeared to have moved into customers' home (after years of intense rivalry in mobile services) with the availability of the High Speed Fixed Line Broadband technologies. This started with UniFi, which was offered by the incumbent Telekom Malaysia Berhad in March 2010, and was quickly followed by Maxis at the end of 2010. On the whole, the mobile phone companies' growth during 2010 was mainly centered on data and Internet services, with their voice businesses maturing. Thus, the industry's future growth is likely to be largely driven by customers' increasing demand for Internet and broadband services and for ubiquitous Internet access. The industry's hyper competition however, has resulted in operators beginning to seek collaborative partnerships with each other in order to reduce costs, particularly in relation to their technology infrastructures.



Critical Practice Lens for Economic and Government Transformation Programmes

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ABSTRACT

“TRANSFORMATION” has been a recurring pervasive principle and nametag among all the Malaysian public sector initiatives — beginning with the Multimedia Super Corridor in the mid-1990s, then the knowledge-based and innovation economies, and subsequently the regional development corridors in the 2000s. In the last two years, however, the Government has been taking a radically new approach to national transformation. The Government Transformation Programme was initiated in 2009, followed by the New Economic Model and Economic Transformation Programme in 2010. More recently, new programmes were started in the areas of political and rural transformation. Presently, transformation can be perceived as the inception stage, as the various programmes will be undergoing a long continuous implementation journey into 2020. In order to make a real significant change to the condition of the Rakyat, the transformation needs to be driven from a synthesis of economic, managerial, organizational, social and technological dimensions at the multiple levels of the individual, organization, industry, government, society and nation. We offer another way of seeing and doing transformation using an enhanced critical theory and critical practice. We define critical practice as an iterative reflexive process, firstly by developing knowledge-for-understanding from a sophisticated model of reality. Secondly, we provide a critique of underpinning assumptions and presumptions whereby the constraining conditions of the status quo and emancipation become knowable and explicit, that is, knowledge-for-evaluation. Finally, we re-create, re-define, re-design, re-imagine, re-invent and re-vision the pragmatic, doable and implementable programmes from knowledge-for-action. We re-define the concept of “Doing and Being” whereby Yin meets Yang in critical practice

of the economic, government, political and social transformation initiatives to transform Malaysia into a high-income developed country by 2020.

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INTRODUCTION

Ever since the beginning of the 1990s, Malaysia has been adopting the concept of a "Quantum Leap" in all its government projects. In the mid-1990s, an Information Communications Technology (ICT) mega-project known as Multimedia Super Corridor (MSC) was created by the Government to convert and transform the whole country into its own version of California's Silicon Valley. The rationale at the time was that Malaysia would have to make a transition from an industrial economy model to a post-industry model by drawing on multimedia technologies and the ICT industry. Without this transition, Malaysia would not be able to become a developed country by 2020, a target set in Vision 2020. The MSC was marketed as Malaysia's "Gift to the World", and from its beginning to now, the MSC has been developing the ICT industry to compete with those in developed and developing countries in both the East and West (MDC 1997, 1998).

A focus on the knowledge-based economy (k-economy) and the innovation economy were heavily underscored in Malaysia's development plan of 2006-2010. The strategic intent was to capture and highlight the crucial aspects of knowledge, creativity, and innovation, in order to create new value in generating and sustaining economic growth. In 2009, however, the

Government Transformation Programme (GTP) was initiated to make the government machinery a more effective, advanced, safe and accountable entity. National key results areas include reducing crime, fighting corruption, improving student outcomes, raising living standards of low-income households, improving rural basic infrastructure and improving urban public transport. The GTP built on the MSC's Electronic Government Flagship, whereby ICT had been the enabler of process redesigns in the government ministries and agencies in the previous decade.

By 2010, and with 10 years remaining to achieve the target of becoming a developed country as per the national Vision 2020, the Government designed a new quantum leap mega-project called "Transforming Malaysia". The new national vision is "1Malaysia" and the concept is for the government to focus on the needs of the citizens and to act now rather than merely talk. More importantly, forming a united, multi-racial society is foremost on the minds of the policy makers.

In this paper, the Malaysian Government's National Transformation Policy and Programmes, and the concepts underlying the initiative are described. Next, I evaluate the theoretical basis of the national transformation initiative from an interpretive methodology based on my subjective interpretation of events, actions, and processes. Then, a review of the literature on various theories will attempt to provide a different way of assessing implementation success. From the analysis,

a new theoretical framework that could form the basis of an alternative practical methodology for transformation will be formulated.

THE CASE: TRANSFORMATION OF MALAYSIA

Fig.1 captures the key components of the Government's national transformation initiative, i.e., the programmes, concepts, current national development plan, the Government and citizens. By 2011, Malaysia had reformulated an entirely new model for economic, government, political, rural and social transformation.

The New Economic Model (NEM) aims to transform the economy into one with high income and quality growth over the

remaining years to 2020. The NEM has three guiding principles and objectives on per capita income, economic sustainability, and the inclusiveness of all citizens regardless of their race, as depicted in Fig.2.

The final part of the document was launched and described as a "Quantum Leap for Malaysia" on 3rd December 2010. A series of justifications and principles of the new national programme were illustrated and put on the Internet. The National Economic Council analyzed the comparative GNI per capita with the neighbouring countries, identified diverged growth trajectory and GDP growth since the post-Asian crisis, measured quality of human capital, research and development capabilities as compared to the rest of the world, income distribution

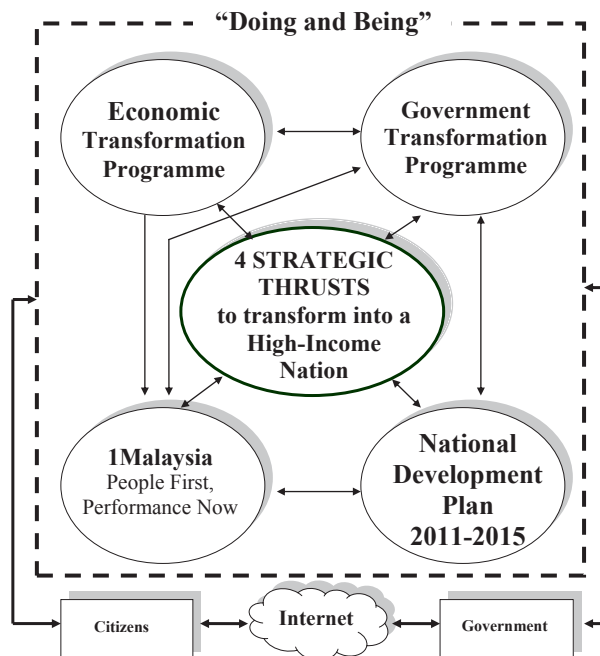


Fig.1: National Transformation Model

disparity, state participation in the economy, and the conventional approaches to strategic planning and policy formulation and implementation. The report described various strategic reform initiatives, and identified national key economic areas to focus on. The new emphasis was on private sector-led growth, technologically-capable industries, cluster and corridor-based economic activities, and localized autonomy in decision making.

The ETP and GTP, together with the incumbent 5-year national development plan on macroeconomic growth targets and expenditure allocation, were integrated into Malaysia's national transformation initiative. They are readily available and downloadable from the Performance Management and Delivery Unit (Pemandu)'s website. Moreover,

there is regular news on the impressive progress in the media. Indeed, a Google search on "national transformation", "state transformation", "economic transformation" and "government transformation" finds that Malaysia is the country that gets the most related hits.

Transformation has been widely perceived by the Government and Barisan Nasional (BN, the National Front being the ruling political coalition) as the prerequisite to becoming a developed country by 2020. The imagination of being the first country to undertake a national-level transformation was best captured in the Fig.3, taken from the government transformation website.

The Pemandu's website, www.pemandu.gov.my, says that the transformation initiative is an "entirely new, new way" of doing things in Malaysia. Conceptually,

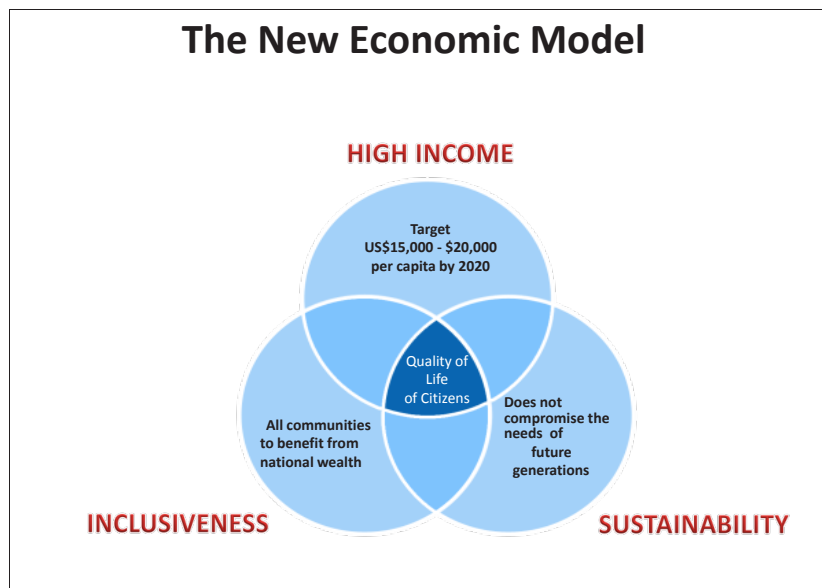


Fig.2: New Economic Model

“doing” (or action) refers to innovative ways of prioritizing projects, solving problems, instituting discipline and delivering results, while “being” (or character) refers to an innovative mindset, innovative culture, and innovative capabilities. This new model deletes the traditional methods used in the private and public sector management tools and methodologies such as incremental changes, six sigma, kaizen, ICT system implementation, training and development, mindset change, process improvement, policy change, just-in-time, capability building, research and development, corporate planning and strategy. In other words, conventional techniques and tools, largely from Western management literature and practices, are now no longer relevant to bring about transformation to Malaysia. Their relevance is even being questioned in the West; Wright, Paroutis and Blettner

(2012) titled their new research paper: “How Useful are the Strategic Tools We Teach in Business Schools?”

Dato’ Sri Idris Jala, Minister without Portfolio in the Prime Minister’s Department and Chief Executive Officer of Pemandu, said:

When you don’t have that measure of true north, you cannot prioritize because everybody uses the word ‘strategic’. That’s the worst word you can ever use

His philosophy has been

by heading towards true north.... a compass to measure where true north is, and very simply. Three measures: GNI, investments and jobs

We cannot continue at the current pace unless we transform...

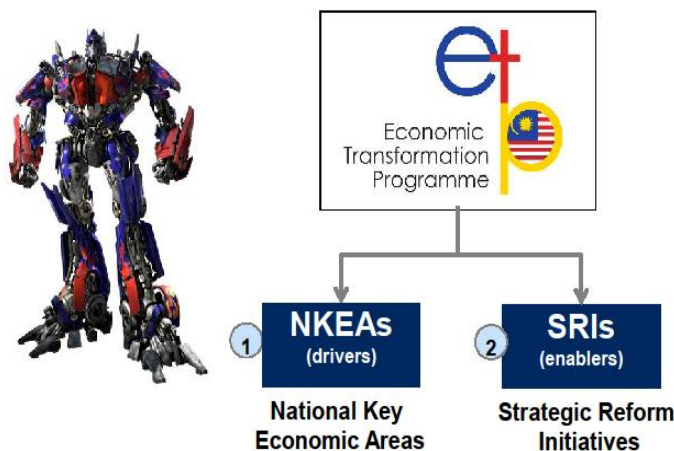


Fig.3: National-level transformation, taken from the government transformation website (www.pemandu.gov.my)

According to him

We need the yin and yang.... focus and competitiveness.... doing and being.... projects and Strategic Reform Initiatives

(The Edge, 8 April 2012, pp. S6-7).

In an October 2011 McKinsey Quarterly article (Daly & Singham 2011), Dato' Sri Idris Jala explained the approach to implementing the ETP and GTP in the quotation from pages 4-5 below:

There is a need to jump start the national transformation effort by "running really fast, with 9 years ahead to achieve Vision 2020", "a lot of things have to be done fundamentally differently to get to the way we want to be", and "driving transformation through Pemandu". Pemandu, in Bahasa Malaysia, means "driver" and acts as the catalyst and architect of the transformation programmes. It has a team of 127 people who are seemed to be really motivated to make a difference to society. Half of them are from the private sector, and the other half are from the civil service.

There are six very specific techniques in the Pemandu methodology, a "Big Results Fast" methodology.

In the words of Idris Jala, these tools are:

1. *Be clear about what constitutes success. Pemandu has a technique where we use public opinion to determine our areas of focus.*
2. *Run labs, which is a new, intensive problem-solving approach. For example, on the GTP, it had 260 of the best civil servants working across six labs on each of the National Key Result Areas. They are from all parts of the civil service: police, teachers, transport people, and everybody. The labs, which usually last six to eight weeks, involve people doing analysis on a full-time basis, handling problem solving, and then finally creating a detailed program of action.*
3. *"Open days," or town hall sessions. The entire Malaysian public is invited to come and engage with us and see what we have produced in the labs. All the programs are open to the public for detailed scrutiny.*
4. *Published our detailed promises in a 264-page book called the Government Transformation Programme Roadmap. We have*

no choice now but to deliver because the whole world knows, in detail, our promises.

5. *Leadership intervention through steering committee, weekly reports, and daily interventions. The term we also use is “discipline of action.” Where every week, I have problem-solving meetings with my team and the respective delivery-management teams from the civil service. We look at only problems.*
6. *The sixth technique is to agree that we publish, annually, a report to the public about our results. This 250-page report discloses the facts on what we have and have not achieved in 12 months.*

The Economic Transformation Programme (ETP), a road map to lead Malaysia to high-income status by 2020, followed in October 2010. The program targets annual growth of 6 percent and a doubling of gross national income (GNI) per capita, to \$15,000, thus meeting the World Bank standard for a high-income country.

This economic programme was distinctive from what other countries do and what Malaysia has done in three ways. Firstly,

the program addresses focus and competitiveness. We are focused on 12 sectors that are going to deliver this growth—for example, palm oil, health care, and tourism. We’re also making deep-rooted reforms to improve our competitiveness in such things as international standards, in liberalization, human-capital development, public-service transformation, and delivery systems.

Secondly, this is a concrete programme. This is not a high-level plan about strategy and intent. We’ve identified 133 concrete entry point projects, which, at the start of the journey, are going to contribute a great deal for our economy. The programme also has targets, milestones, and accountability. This program is detailed in a 605-page book called The Economic Transformation Roadmap. We use this almost like a prospectus to all the companies in Malaysia and even foreign companies that want to invest in the country. If you want to work and grow in the chosen sectors, we’ll encourage you to look at these opportunities and translate them into projects. Over the next ten years, we’d like this to mushroom into thousands of projects that the private sector will take and move forward.

Thirdly, the programme was co-created by the private sector. We had 350 people from the private sector working with 150 people from the public sector for eight weeks in intense labs. Essentially, the private sector is now telling the government this is what we ought to do. Ninety-two percent of the \$444 billion in the projected investment over the next decade will come from the private sector. Only 8 percent of the investment will be from the government."

When asked by Daly and Singham (pp. 7)

You were in the private sector for many years. To what extent do private-sector tools work in the public sector?

Idris Jala's response was:

One of the reasons I took this job was to see whether the techniques and tools that were used in transforming a company can be used in a country. I think all of it works. I'm absolutely sure now. The methodologies are the same. It's just a different slant for how you tackle it—the public versus customers. You've got to deal with customers in a corporation. Here you deal with the general public, but you treat them as customers. Because this program is about fundamentally changing the way we do things, so that there's a full, whole system

change in the economy and also the government".

The Malaysian Budget 2012, which is also known as the "Transformation Budget", emphasized efforts to transform the nation into a developed and high-income economy with inclusive and sustainable development, spearheaded by the private sector. The Budget 2012's theme has been "Transformation towards a Developed and High-Income Nation" with a focus on the following four key strategies: reinvigorating private investment; intensifying human capital development; enhancing quality of life of Malaysians; and strengthening public service delivery. A new policy was embedded in the theme: "*National Transformation Policy: Welfare For The People, Well Being For The Nation*".

LITERATURE REVIEW: COMPONENTS FOR AN ENHANCED CRITICAL MODEL

In the past half decade, an increasing number of researchers have used critical theory in the fields of private and public management studies. Critical Theory is a broad approach to challenging and destabilizing established knowledge. In a more focused sense, Critical Theory comes out of the German "Frankfurt School" (where it was called Critical Theory of Society or Critical Social Theory), which emphasizes that all knowledge is historical and biased, and that "objective" knowledge is illusory. According to Horkheimer (1937), per Fuchs' (2008) book titled *Internet and Society: Social Theory in the Information Age*, critical theory would

constitute a whole that is not orientated on the preservation of contemporary society but in its transformation into the right kind of society. Its goal is the transformation of society into a “society without injustice” that is shaped by “reasonableness, and striving for peace, freedom, and happiness”; man’s actions no longer flow from a mechanism but from his own decision, and that is “a state of affairs in which there will be no exploitation or oppression”. Horkheimer argued that critical theory wants to enhance the realization of all human potentialities. Its goal is “man’s emancipation from slavery” and “the happiness of all individuals”. In the area of information systems (IS) and management research (McGrath, 2005) and public service (Wallace *et al.*, 2007), being critical is to develop in-depth knowledge-for-understanding at the local levels through interpretive, contextualist, hermeneutic and ethnographic approaches. It involves a critique of taken-for granted assumptions underpinning organizational, managerial and technological practices. Finally, it defines transformation by developing knowledge-for-action and practical understanding that enable technology-related organizational change, diversity, and re-constructing new ways of working and living.

The business and public administration schools in the USA and UK have just started to apply the theory to their management research. Books and articles on the application of critical theory are recent, for example, Fuchs’ (2008) *Internet and Society: Social Theory in the Information Age*; Kelemen and Rumens’ (2008) *An Introduction to Critical*

Management Research; Stahl’s (2008) *Information Systems Critical Perspectives*; Antonacopoulou, E. P. (2010); Arthur, W. B. (2011); Corradi, G, Gherardi, S., and Verzelloni, L., (2010); Ferlie, E., McGivern, G., and Moraes, A. D., (2010); Ford, J., Harding, N., and Learmonth, M. (2010) Gherardi, S., (2009); Miller and Dunn (2006); Miller and Tsang (2010), Mitev, N. N. (2006); Parker, M., and Thomas, R. (2011); Richardson, H., and Robinson, B. (2007); and Tatli, A. (2011). The general idea was that with the rapid development of technologies and the evolution to the knowledge and innovation economies, major changes have been occurring at the level of the individual, organization and society. In order to accommodate these changes in a positive way, in-depth insights into the existing situations and a critical outlook on the underlying assumptions could enable us to define the desired transformation. Being critical is a pre-requisite for the transformation of a developing country into a developed country with high-income capital. Indeed, in both the developed and developing countries, critical practice would provide the relevant policies and implementation methodologies to ensure transformation and “revolution” in the real sense, and not just a political tag.

Structuration theory is a general theory that aims to grasp the importance of the concept of action in the social sciences, without failing to highlight the structural components of social institutions. The approach was primarily developed by the sociologist, Anthony Giddens (1984), and

has become highly influential throughout the social sciences since the early 1990s. It seeks to reinstate the importance of the concepts of time and space in social and political analysis. Central to structuration is the notion of the duality of structure. All social action consists of practices, located in time-space, which are the skilful, knowledgeable accomplishments of human agents. However, this 'knowledgeability' is always 'bounded' by unacknowledged conditions and unintended consequences of action. The duality of structure therefore attempts to convey the idea that structure is both the medium and outcome of the practices that constitute social systems.

Structuration theory is the latest in a long line of attempts to grapple with one of the central problems in social analysis, the agency-structure dilemma. Phipps (2001) reviewed and classified fifty-three empirical applications of structuration theory in the social sciences and geography between 1982 and 2000. But the five dimensions he used, namely representable type of social behaviour, methodological bracketing, data, roles of time-space, and interpretation of duality of structure, captured only seven applications in the area of business and organizational studies. Its recent application to strategy was collected in Golsorkhi, Rouleau, Seidl and Vaara (2010).

Structuration theory, in its original formulation, paid little attention to technology (Orlikowski, 2000; Jones *et al.*, 2004). However, given the pervasiveness of technology in organizations' everyday operations, and especially the role of

information technology in the process of enactment and reality construction in contemporary organizations, various attempts have been made to extend Giddens' ideas by including an explicit ICT dimension in social analysis. Based on use of structuration theory as the primary or secondary theoretical foundation, Pozzebon (2004) and Pozzebon and Pinsonneault (2005) assessed the increasing application of structuration theory on management research, and noted that structuration theory has often been appropriated as a broad framework or to complement and augment other approaches. In the recent years, only several studies (for e.g., Brocklehurst, 2001; Nicholson & Sahay, 2001; Orlikowski, 2000; Stillman, 2006; Walsham, 2002; Young & Leonardi, 2012) used the structuration theory as the sole theoretical foundation in empirical inquiries. Stones (2005) further strengthened the conceptual orientations into a "strong" structuration theory. Jayatilaka, Klein and Lee (2007) attempted to categorize the IS research literature using the framework of Giddens' structuration theory; they saw its potential for bridging the philosophical divide between positivist and interpretive research approaches, and also saw that structural concepts can be linked to key concerns of critical social theories — such as Habermas' theory of communicative action, Boudieu's theory of social and cultural capital, and Foucault's insights on archaeology and genealogy of knowledge.

Actor Network Theory (ANT) originates from the sociology of science

and technology, and has been a popular theoretical framework in the 1990s. According to the latest study by Latour (2005), ANT does not distinguish between the macro and micro levels or multiple levels of analysis. It promotes a flat ontology where the macro-level is nothing more than a network expanded in time and space — that is, an ever-expanding chain of local actors (or actants), both human and non-human. The division between the social and the material is just a discursive construction. The social and the material are inseparable, and they mutually define one another. Humans form alliances with the material objects they have created (i.e., they become hybrids), so that they have the possibility of forming networks that transcend time and space. Actants are a product of network relations; one cannot think of an actant's power to act separately from the networks of which it is a part. The actants are constituted by the networks as much as they constitute it. The key concept of translation is described as a displacement or mediation of the interests of heterogeneous actors to create a network of allies and keep their various interests aligned. The network is not conceived as fixed, like a structure, but as a form of organizing. The project sustains the network through the enrolment of actors who, in aligning their interests, in turn solidify the network by enlarging it and inscribing it in material forms. This conception of the dynamics of change and innovation portrays organizations as actor-networks or action nets that are translated (continuously

redefined) through ongoing processes. Finally, the translation model conceives of organizations as self-organizing, and has parallels to complexity theory. The majority of studies using the ANT framework have focused on innovation processes, according to references in Demers (2007).

ANT offers promise because it explicitly theorizes about actors and the ways in which they are connected with and through their technologies. ANT theorists have given networks and technologies a central focus in their theorizing about social systems, while carefully pointing out the differences in stability. The networks that researchers observed were richly nuanced, multivalent, dynamic, indeterminate and contingent. Affiliations among networked individuals, groups and organizations entail the use of technology to varying degrees. However, ANT is not a cohesive framework; it is more an assemblage of concepts and models that are always under debate and revision, even from within. Actually studies that drew on ANT tended to borrow different concepts selectively and use them in different ways (Demers, 2007). Recent attempts to pinpoint the limitations of ANT included that of Klecun (2004), who stated that ANT focused on actors and their actions as they are performed and did not appear to be concerned to what extent they might be historically conditioned. Brooks, Atkinson and Wainwright (2008) noted that ANT cannot account for how these “humachine” networks persist over time and space other than at the behest of some “focal actor” who has to constantly driving them and in

translating more actions into the network until it becomes increasingly consolidated and undifferentiated.

As early as 2006, Atkinson and Brooks combined ANT and structuration theory into a hybrid model known as structurANTion, in which structured networks come into being and persist through time and space without the necessity of some focal actor doing them; the network constitutes itself autopoietically (self-organizing). Shah and Kesan (2007) also combined ANT and structuration theory into their model ITSI (IT and Societal Interactions).

The use of ANT and structuration theory by themselves has been categorized as a form of critical practice studies (per Brigham & Corbett 1997; Fox, 2000, as cited in Demers, 2007). Each is subjected to the usual limitations of employing, and thereby emotionally fixating, on a particular way of thinking and a particular way of seeing and perceiving the world; we generally tend to see what we want to see, and the empirical material largely confirms the theory. In 2007, we first analyzed a case study of government decision making on an international Internet portal in terms of ANT. Next, we elucidated the same case in terms of structuration theory. Subsequently, we re-elucidated the case in terms of a combination of ANT and structuration theory — similar to the StructurANTion model of Brooks, Atkinson and Wainwright (2008). By using the combination of ANT and structuration theory to critique the case (Kwong 2010), we were able to define the knowledge-for-action to bring about transformation.

Western scholars have increasingly utilized Complexity Theory (Jacucci, Hanseth, & Lyytinen, 2006; Wallace, Fertig, & Schneller, 2007). Meanwhile, various research centres have been set up in the USA and Western Europe to apply and further develop the theory, i.e., Santa Fe Institute, New England Complex Systems Institute, Northwestern Institute on Complex Systems, Complexity Complex at the University of Warwick, and Centre for the Study of Complex Systems at the University of Michigan. Complexity theory is an approach to understanding and modelling the realm of systems that have many interacting parts, i.e., systems too complex for deterministic mathematical solutions and too simple for averaging by statistics. Complexity examines systems holistically, and focuses on interdependence rather than independent behaviour of parts. The term ‘complexity’, as used in our critical practice model, refers mainly to the theories of complexity as applied to the Complex Adaptive Systems (CAS). These are dynamic systems — able to adapt and change within, or as part of, a changing environment, that is, open evolutionary systems in which the components are strongly interrelated, self-organizing and dynamic. CAS is characterized by a large number of elements that interact, and this interaction is dynamic so that the system changes with time. These interactions are rich, in that any element in the system influences and is influenced by several others. They are non-linear — small causes can have large impacts and vice versa; short range — information is received primarily

from immediate neighbours; and have loops in interaction – the effect of any activity can feedback onto itself, either directly or after a number of intervening stages.

Systems are usually open and they interact with their environment. In fact, it is difficult to define the borders of a complex system. Additionally, a CAS operates under conditions far from equilibrium. There has to be a constant flow of energy to maintain the organization of the system and to ensure its survival. Systems have a history as they evolve over time, but their past is co-responsible. CAS applies local knowledge only as each element in the system is ignorant of the behaviour of the system as a whole and as the focus shifts from the individual elements to the complex whole. We look at the complexity inherent in a socio-technical organization in terms of connectivity, edge of chaos, distance from equilibrium, dissipative structures, emergence and co-evolving landscapes. However, there are various descriptions of complexity theory, and there is no agreement about its terms and terminology. In the realm of the natural sciences, however, complexity theory has been hailed by leading scientists such as physics Nobel Prize winner Emeritus Professor Stephen Hawking of Cambridge University, who in January 2000 said, “I think the next century will be the century of complexity” (Sanders, 2003).

Applying complexity-based thinking to the national transformation process can help policy makers and decision makers to understand, assess and develop a more balanced and comprehensive approach for

the implementation of the transformation initiatives and to tackle the complexity of radical socio-economic-political transformation in the Malaysian real-world setting. To the best of our knowledge, we are not aware of any application of complexity theory in Malaysia. As long ago as 2005, we started using complexity theory and we are now incorporating it in our critical practice model (IFORS National Contribution Malaysia, 2005; APORS National Contribution Malaysia, 2006; Wahab & Kwong, 2009).

FINDINGS AND THEORETICAL SYNTHESIS

From the interpretation of the case in *The Case: Transformation of Malaysia* section and the review of theories in *Literature Review: Components for an Enhanced Critical Model* section, we found that the theoretical underpinnings of the transformation model are simple and hinge mainly on the concept of “Doing and Being”. We synthesize the various theories that have been used in earlier Malaysian case studies and develop an enhanced model of critical practice.

Transformation Model is largely A-Theoretical

The transformation programmes had rapidly kicked off in the last 2 years. “Transforming Malaysia” aims to build a new different world. But how different or familiar are the consequences to the extant situations and constitution of the Malaysian society? Perhaps, it is too early

to predict “transformation success”. Softly speaking, at this point in time, we are at the stage of “INCEPTION”, characterized by acts of birth, evolution, inspiration and illumination. A variety of viewpoints had been formed, reflecting the diversity of opinions of the different stakeholders in the country. The general perception, as reflected in the media, is that there are two principal groups with diverging views, namely the ruling political coalition versus the opposition coalition. To the ruling coalition, the transformation initiative is an awesome vision for bringing about a huge significant change to the country. To the opposition coalition, the transformation initiative is difficult to achieve, entails political posturing and presents a mirage of great change (Shazwan, 2012).

Conceptually, the national transformation programmes were designed by McKinsey, drawing from Dato’ Sri Idris Jala’s managerial and organizational transformation experiences at Shell Malaysia. Organizational transformation models were developed in the early 1990s, beginning with Michael Hammer’s business process re-engineering. A range of theoretical frameworks on organizational transformation abound in the literature (see Bock *et al.*, 2012; Burford *et al.*, 2011; Demers, 2007; Dixon *et al.*, 2010; Edwards, 2010; Hutton & Liefoghe, 2011; Jepperson & Meyer, 2011; Keen & Qureshi, 2006; Meaney & Pung, 2008; Pettigrew, 2012; Sugarman, 2007; Thompson & Rainey, 2007; Wooldridge, 2011), over the last two decades. The only core theoretical

basis has been the “Doing and Being” model; the transformation model has been depicted as a double-fish symbol or “Yin and Yang” approach to implementation success. The “Yin” or “Doing” refers to Entry Point Projects and the “Yang” or “Being” refers to the Strategic Reform Initiatives (Pemandu’s definition). Theoretically, both are essentially the duality of actions and institutions.

Malaysia surely could and would be the first country to develop a national transformation success model, as we have monitored, measured and reviewed the implementation of our National Transformation Policy over the next several years. One way to seeing the success of the transformation programmes is from the perspective of critical practice. Critical practice, aka critical *praxis*, refers to a methodology for understanding, evaluating and improving a programme beyond the usual concerns into its unintended side effects, causes and consequences. Critical Practice has been grounded in the concepts of critical theory vis-à-vis the conventional critical thinking approaches (Muniz, 2010; Parker & Thomas, 2011; Pavlidis, 2010).

Yin meets Yang in Critical Practice

The evolution and development of the various theories described in *Literature Review: Components for an Enhanced Critical Model* section above enable us to design and formulate critical practice as consisting of 3 stages/steps/action steps/acts. This is depicted in Fig.4. Our model of Critical Practice is enhanced and enriched

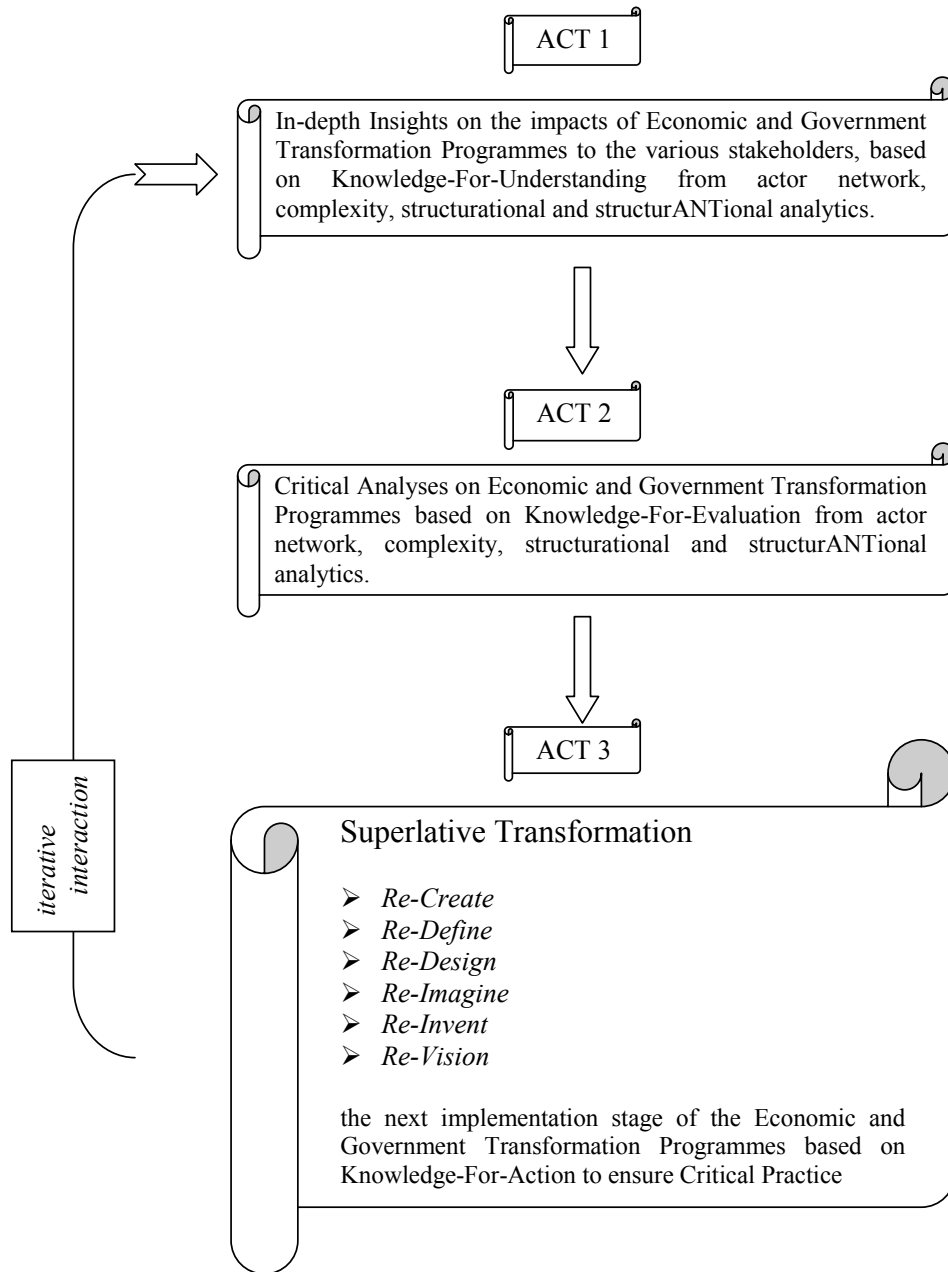


Fig.4: Critical Practice Model

by drawing on the increasingly influential stream of work in the areas of actor network theory, structuration theory and complexity theory as the underlying theoretical basis for management practice in economic development compared to the conventional models. Our previous use of these in research and consulting within the local context of government policies and projects enabled us to develop a more sophisticated way of seeing and doing. Stage 1 and Stage 2 (subsequently, the stages and actions to be labelled as “acts”) of critical practice would employ a combination of actor network, complexity and structuration theories. The Critical Practice Model is an iterative process, whereby Act 1, Act 2 and Act 3 interplay and interact among one another, or, as in the terminology of Pemandu, the “Doing and Being” or “Yin and Yang” are continuously interacting in order to produce and reproduce the impacts of the transformation programmes onto the various stakeholders.

CONCLUSIONS AND IMPLICATIONS: MAKING A WORLD OF DIFFERENCE WITH CRITICAL PRACTICE

When Barack Obama successfully campaigned for the presidency of America in 2008, his slogan was simple, “Change we can believe in”. Nevertheless, “Transforming Malaysia” is more complex; it is a pre-requisite to achieve the higher aim of being a developed country with high-income status. Hence, under the leadership of the Prime Minister Dato’ Sri Mohd Najib Tun Abdul

Razak, the country has embarked on a new approach consisting of the NEM with 8 strategic reform initiatives and the GTP, the ETP and the PTP, to realize Vision 2020 by its target date. “Transforming Malaysia” aims to create a new world via an “altered state” of the whole society from the levels of the individual, citizenry, organization, industry, government and nation. However, the national transformation initiative designed by McKinsey drew largely from the area of organizational transformation, and the core theoretical basis is the Doing and Being (Yin and Yang) model. Conventional management and strategic tools being taught in business schools were perceived by Pemandu as irrelevant to the country. The National Transformation Policy emerged from a patching and repackaging of the GTP from 2009, to ETP and the NEM in 2010, to the Transformation Budget in 2012 — all with the theme “*National Transformation Policy: Welfare For The People, Well Being For The Nation*”. Consequently, the extant transformation model is largely a-theoretical.

Hence, we have formulated a theoretical framework for critical practice to ensure that the transformation programmes will deliver the desired expected benefits and outcomes to the country. Action Step 1 or Act 1 ensures that in everyday practice, the “theories in use” are made explicit through a sophisticated model generated from a combination of theories on the human condition. Act 1 generates the knowledge-for-understanding. Action Step 2 or Act 2 permits us to review the progress, the

underlying assumptions and presumptions that are underpinning the transformation programmes at the project level. Act 2 generates the knowledge-for-evaluation. Both Acts provide a greater measure of reflexivity in decision-making by the various stakeholders. From this vantage point, we next generate the knowledge-for-action to re-create, re-define, re-design re-imagine, re-invent, re-think, and re-vision pragmatic, doable and implementable plans and actions.

In everyday practice, a range of implicit and explicit theories influence our thinking on particular topics and impact our decisions. Since more than 70 years ago, Chester Barnard's (1938) *The Functions of the Executive* and other prescriptive, conceptual, theoretical developments have had a direct and significant impact on practice because managers and practitioners subscribing to one of these theoretical positions organized resources to achieve corporate objectives according to the theories they espoused and used. However, as Ghoshal (Birkinshaw & Piramal, 2005) stated, "bad theories" are destroying good practices. In order to develop "good theories", that is, explicit theories or deep insights that can capture the complexity of real-world decisions, we must design a sophisticated model for critical practice. The enhanced critical practice model has been developed through a combination of actor network, complexity and structuration theories that capture the complex reality of the real world, and can be depicted as a sophisticated 'theory of everything'. Yin and Yang, nevertheless, is

also a 'theory of everything' as it has been used in all disciplines and fields in both the East and the West. Yin and Yang is a simple description of reality — from the perspective of simplicity.

Pemandu's transformation concepts of "Doing and Being" can now be expanded. Doing can now be redefined as an innovative way of project prioritization, problem-solving and delivering outcomes through the enactment of critical praxis. "Being" can be redefined as an innovative mindset and competences derived from learning about being critical (from the perspective of critical theory vis-à-vis conventional critical thinking and problem solving). At this stage, the enhanced critical practice model is a theoretical model using the jargon of the social sciences. In order to be a pragmatic methodology, Pemandu must use the terminology of everyday working language that can be readily understood by all stakeholders. In a world of complexity, highly effective decision makers, skilful strategists and creative innovators are those who develop a sophisticated knowledgeability of problem situations. This new breed of people and knowledge workers are not those with simplistic worldviews; they possess wisdom re-defined as knowledgeability of simplicity and sophistication {a.k.a "Advanced Simplicity and Sophistication" or the pseudonym "ASS", and hence Wisdom = ASS or "Wisdom@ASS" per APORS National Contribution Malaysia 2006, Han (2010), Kwong and Han (2011), Han (2012)}. The embodiment and use of ASS, that is, the

enhanced critical practice plus the “Doing and Being,” can enable us to inherit new worlds of knowledge, innovation and dream economies. Thus, we could and surely would bring about real superlative transformation to Malaysia.

REFERENCES

- Al-Amoudi, I., & Willmott, H. (2011). Where Constructionism and Critical Realism Converge: Interrogating the Domain of Epistemological Relativism, *Organization Studies*, 32(1), 27-46.
- Alvesson, M., Hardy, C., & Harley, B. (2008). Reflecting on Reflexivity: Reflective Textual Practices in Organization and Management Theory, *Journal of Management Studies*, 45(3), 480-501.
- Antonacopoulou, E. P. (2010). Making the Business School More ‘Critical’: Reflexive Critique Based on Phronesis as a Foundation for Impact, *British Journal of Management*, 21, S6-S25.
- APORS National Contribution Malaysia (2006). Han, C. K., Han, Z. K. L., and Wahab, A. A. Outsourcing Malaysia: Icon Driver of the Storm? A Complexity-Structurational Perspective, 7th Conference of Association of Asian Pacific Operations Research Societies, APORS 2006, Manila, Philippines, 16-18 January.
- Arthur, W. B. (2011). The Second Economy, *McKinsey Quarterly*, Online Journal of McKinsey & Company. October, pp.1-7.
- Atkinson, C. & Brooks, L. (2006). Modalities of humachine actor networks: mechanisms of hybridity and emancipation in structuration theory, *Journal of Intelligent Systems*, 15(1-4), 55- 79.
- Barnard, C. (1938). *The Functions of the Executive*. Cambridge, MA: Harvard University Press.
- Bradley, S. W., McMullen, J. S., Artz, K., & Simiyu, E. M. (2012). Capital is Not Enough: Innovation in Developing Countries, *Journal of Management Studies*, Doi: 10.1111/j.1467-6486.2012.01043.x
- Birkinshaw, J., & Piramal, G. (Eds). (2005). *Sumantra Ghoshal on Management: A Force for Good*. Harlow, UK: FT Prentice Hall.
- Bock, A. J., Opsahl, T., George, G., & Gann, D. M. (2012). The Effects of Culture and Structure on Strategic Flexibility during Business Model Innovation. *Journal of Management Studies*, 49, 279–305. Doi: 10.1111/j.1467-6486.2011.01030.x
- Brooks, L., Atkinson, C., & Wainwright, D. (2008). Adapting Structuration Theory to Understand the Role of Reflexivity: Problematization, Clinical Audit and Information Systems, *International Journal of Information Management*, 28(6), 453-460.
- Canary, H. E. (2010). Structurating Activity Theory: An Integrative Approach to Policy Knowledge, *Communication Theory*, 20, 21-49.
- Corradi, G, Gherardi, S., & Verzelloni, L., (2010). Through the practice lens: Where is the bandwagon of practice-based studies heading? *Management Learning*, 41(3), 265-283. doi: 10.1177/1350507609356938
- Daly, E., & Singham, S. (2011), Jump-starting Malaysia’s growth: An interview with Idris Jala, *McKinsey Quarterly*, October.
- Demers, C. (2007). *Organizational Change Theories: A Synthesis*. Thousand Oaks, California: Sage Publications.
- Dixon, S. E. A., Meyer, K. E., & Day, M. (2010), Stages of Organizational Transformation in Transition Economies: A Dynamic Capabilities Approach, *Journal of Management Studies*, 47(3), 416-436.

- Edwards, M. G. (2010). *Organizational Transformation for Sustainability: An Integral Metatheory*, Routledge, USA.
- Ferlie, E., McGivern, G., & Moraes, A. D. (2010). Developing a Public Interest School of Management, *British Journal of Management*, 21, S60-S70.
- Fuchs, C. (2008). *Internet and Society: Social Theory in the Information Age*. New York: Routledge.
- Ford, J., Harding, N., & Learmonth, M. (2010). Who is it That Would Make Business Schools More Critical? Critical Reflections on Critical Management Studies. *British Journal of Management*, 21, S71-S81.
- Geiger, D. (2009). Revisiting the Concept of Practice: Toward an Argumentative Understanding of Practicing, *Management Learning*, 40(2), 129-144, Doi: 10.1177/ 1350507608101228
- Gherardi, S. (2009). Introduction: The Critical Power of the 'Practice Lens', *Management Learning*, 40(2), 115-128, Doi: 10.1177/ 1350507608101225
- Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structuration*. Cambridge, UK: Polity Press.
- Golsorkhi, D., Rouleau, L., Seidl, D., & Vaara, E. (eds) (2010). *Cambridge Handbook of Strategy as Practice*. Cambridge, U.K., Cambridge University Press.
- Han, C. K. (2010). Knowledge Super Corridors in Developing Countries: A Critical Perspective. In V. Godara (Ed.), *Strategic Pervasive Computing Applications: Emerging Trends* (pp. 150-167). Hershey, New York: IGI Global.
- Han, C. K. (2012). Malaysian e-Government: Privacy Policy from a Practice Lens, first *Global e-Government Forum GeGF2012*, hosted by United Nations (UNDESA, UNPOG), Ministry of Public Administration and Public Security, and Ministry of Knowledge Economy, Republic of Korea and, organized by National Information Society Agency, Seoul, South Korea, Track 2, Session 2-3, Proceedings pp. 411-439, 18-19 October {invited speaker & full financial sponsorship by National Information Society Agency}
- Han, C. K. (2013). National Transformation Success @ A Theory of Everything based on Simplicity and Sophistication, *Social & Management Research Journal* (forthcoming).
- Hutton, C. & Liefoghe, A. (2011). Mind the Gap: Revisioning Organization Development as Pragmatic Reconstruction. *Journal of Applied Behavioral Science*, 47(1), 76-97. Doi: 10.1177/0021886310394775
- IFORS National Contribution Malaysia (2005). Han, C. K., and Wahab, A. A. Making the Knowledge-based Economy: A Complexity-Structurational Perspective of a Developing Country, 17th Triennial Conference of International Federation of Operational Research Societies, IFORS 2005, Hawaii, USA, 11-15 July.
- Institute of Strategic and International Studies. (2011). *Malaysia: Policies and Issues in Economic Development*. Kuala Lumpur: Institute of Strategic and International Studies.
- Jack, L., & Kloeif, A. (2007). Introducing Strong Structuration Theory for case studies in Organization, *Management and Accounting Research (Working Paper WP 07/01)*, School of Accounting, Finance & Management, University of Essex.
- Jacucci, E., Hanseth, O., & Lyytinen, K. (2006). Taking complexity seriously in IS research. *Information Technology & People*, 19(1), 5-11.
- Jepperson, R., & Meyer, J. W. (2011). Multiple Levels of Analysis and the Limitations of Methodological Individualisms. *Sociological Theory*, 39(1), 54-73.

- Jones, M. R., & Karsten, H. (2008). Giddens's Structuration Theory and Information Systems Research, *MIS Quarterly*, 32(1), 127-157.
- Jones, M., Orlikowski, W., & Munir, K. (2004). Structuration Theory and Information Systems: A Critical Reappraisal. In J. Mingers & L. Willcocks (Eds.), *Social Theory and Philosophy for Information Systems* (pp. 297-328). Chichester, UK: John Wiley & Sons.
- Keen, P., & Qureshi, S. (2006). Organizational Transformation through Business Models: A Framework for Business Model Design, *Proceedings of the 39th Hawaii International Conference on System Sciences*, Hawaii, USA.
- Kelemen, M. L., & Rumens, N. (2008). *An Introduction to Critical Management Research*. UK: SAGE Publications Ltd.
- Klecun, E. (2004). Conducting critical research in IS: can actor-network theory help? In Kaplan, Bonnie and Truex III, Duane P and Wastell, David and Wood-Harper, Trevor and DeGross, Janice, (Eds.). *Information systems research*. Kluwer Academic Publishers, Dordrecht, pp. 259-274. ISBN 1402080948.
- Kwong, H. C. (2010). Generating a Critical Perspective from Actor Network and Structuration Analytics: An Interpretive Case Study Re-Elucidated. In Adilah Abd Razak, Dahlia Zawawi and Raja Nerina Raja Yusof (Eds.). *In Search of Good Practices Weaving through Current Perspectives in Business* (pp. 267-293). Serdang: Universiti Putra Malaysia Press.
- Kwong, H. C., & Han, Z. K. L. (2011). *Economic Transformation in an Asian Country: Being Critical for Success*. Korean Association for Public Administration (KAPA)'s International Conference on "The Role of the State in Economic Development and Stability", Proceedings pp. 313-331, Busan, South Korea, 29-30 April {invited speaker & full financial sponsorship by KAPA}
- Latour, B. (2005) *Reassembling the Social: An Introduction to Actor Network Theory*. Oxford: Oxford University Press.
- McGraph, K. (2005). Doing Critical Research in Information Systems: A Case of Theory and Practice not informing each other, *Information Systems Journal*, 15, 85-101.
- MDC (Multimedia Development Corporation). (1997). *Multimedia Super Corridor Annual Report*, Cyberjaya, Malaysia.
- MDC (Multimedia Development Corporation). (1998). *Multimedia Super Corridor Annual Report*, Cyberjaya, Malaysia.
- Meaney, M., & Pung, C. (2008) Creating organizational transformations: McKinsey Global Survey Results, McKinsey Quarterly, August.
- Miller, D. Y., & Dunn, W. N. (2006). *A Critical Theory of New Public Management*, University of Pittsburgh, USA.
- Miller, K. D., & Tsang, E. W. K. (2010). Testing Management Theories: Critical Realist Philosophy and Research Methods, *Strategic Management Journal*, 32, 139-158.
- Mitev, N. N. (2006). Postmodernism and Criticality in Information Systems Research: What Critical Management Studies Can Contribute, *Social Science Computer Review*, 24(3), 310-325.
- Mulnix, J. W. (2010). Thinking Critically about Critical Thinking, *Educational Philosophy and Theory*, Doi: 10.1111/j.1469-5812.2010.00673.x
- Nicholson, B., & Sahay, S. (2001). Some political and cultural issues in the globalization of software development: case experience from Britain and India. *Information and Organization*, 11, 25-43.
- Orlikowski, W. J. (2000). Using Technology and Constituting Structures: a Practice Lens for Studying Technology in Organizations, *Organization Science*, 11(4), 404-428.

- Parker, M., & Thomas, R. (2011). What is a Critical Journal, *Organization*, 18(4), 419-427.
- Pavlidis, P. (2010). Critical Thinking as Dialectics: a Hegelian-Marxist Approach, *Journal for Critical Education Policy Studies*, 8(2).
- Pettigrew, A. M. (2012). Context and Action in the Transformation of the Firm: A Reprise. *Journal of Management Studies*, 49(7), 1304-1328, doi: 10.1111/j.1467-6486.2012.01054.x.
- Phipps, A. G. (2001). Empirical Applications of Structuration Theory. *Geografiska Annaler*, 83 B(4).
- Pozzebon, M. (2004). The Influence of a Structurationist View on Strategic Management Research, *Journal of Management Studies*, 41(2), 247-272.
- Pozzebon, M., & Pinsonneault, A. (2005). Challenges in Conducting Empirical Work Using Structuration Theory: Learning from IT Research. *Organization Studies*, 26(9), 1353-1376.
- Richardson, H., & Robinson, B. (2007). The mysterious case of the missing paradigm: a review of critical information systems research 1991-2001, *Information Systems Journal*, 17(3), 251-270.
- Sanders, T. I. (2003). *What is Complexity?* Washington Center for Complexity & Public Policy, Washington, DC, USA.
- Shah, R. C., & Kesan, J. P. (2007). Analyzing Information Technology & Societal Interactions: A Policy Focused Theoretical Framework. *Illinois Public Law Research Paper No. 07-12* from <http://papers.ssm.com/abstract=1028129>
- Shazwan, M. K. (2012). ETP a reincarnation of 'Mahathirist' policies, says Pakatan, *The Malaysian Insider*, 8 March.
- Sugarman, B. (2007). A Hybrid Theory of Organizational Transformation, *Research in Organizational Change and Development*, 16, 43-80.
- Stahl, B. C. (2008). *Information Systems: Critical Perspectives*. New York: Routledge.
- Stillman, L. J. H. (2006). *Understandings of Technology in Community-Based Organisations: A Structural Analysis*. (Unpublished doctoral dissertation). Faculty of Information Technology, Monash University, Australia.
- Stones, R. (2005). *Structuration Theory*. New York: Palgrave MacMillan.
- The Edge (2012). *A Special Report of the Economic Transformation Programme*, The Edge, Malaysia, 8 April.
- Tatli, A. (2011). On the Power and Poverty of Critical (Self) Reflection in Critical Management Studies: A Comment on Ford, Harding and Learmonth, *British Journal of Management*, 22, 238-253.
- Thompson, J. R., & Rainey, H. G. (2007). Organizational Transformation, Logics of Action and the IRS, 1998-2007, *9th Public Management Research Conference*, University of Arizona, October, USA.
- Wahab, A. A., & Kwong, H. C. (2009). A Complexity Analysis of the Multimedia Super Corridor Phase I. In Ng Siew Imm and Azmawani Abd Rahman (Eds.), *Management Issues and Challenges: Implications to Malaysian Industries* (pp. 103-145). Serdang: Penerbit Universiti Putra Malaysia.
- Wallace, M., Fertig, M., & Schneller, E. (2007). *Managing Change in the Public Services*. Malden, MA: Blackwell Publishing.
- Walsham, G. (2002). Cross-Cultural Software Production and Use: A Structural Analysis, *MIS Quarterly*, 26(4).

- Walsham, G. (2005). Learning about being critical, *Information Systems Journal*, 15, 111-117.
- Wooldridge, A. (2011). *Masters of Management*. New York: HarperCollins Publishers.
- Wright, R. P., Paroutis, S. E., & Blettner, D. P. (2012). How Useful are the Strategic Tools We Teach in Business Schools? *Journal of Management Studies*. Doi: 10.1111/j.1467-6486.2012.01082.x
- Young, L. E., & Leonardi, P. M. (2012). Social Issue Emergence on the Web: A Dual Structural Model. *Journal of Computer-Mediated Communication*, 17, 231-246. Doi: 10.1111/j.1083-6101.2011.01566.x

The Value Perspective to Adopt Mobile Banking

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ABSTRACT

Customer's value perception is a subjective concept in banking services. Value perception varies among bank customers. Despite the availability of technologically advanced mobile devices, mobile banking services, which use these devices, have not been widely accepted by the customers. Thus, the objective of this study is to investigate various factors affecting the value held by bank customers in driving their behavioural intention to use mobile banking services. The findings from this study may enable banks which seek to promote competitive advantage to examine all factors related to perceived value in order to improve customer value of mobile banking service and consequently their intention to adopt.

Keywords: Mobile banking, Mental Accounting theory, perceived value, UTAUT

INTRODUCTION

Mobile phones are more pervasive than personal computers, as there are three times more mobile phone users than online PC users (Riivari, 2005). Moreover, the capacity of the modern-day mobile phone shifts from being a device for transmitting voice to a device that also carries data and money (Puschel *et al.*, 2010). Accordingly, this newly defined commercial portal has opened doors for industrialists and other

providers of goods and services such as financial service providers to redefine their operations. Various financial institutions have been producing fresh and novel products and services that are founded on the platform of mobile application, which is known as Mobile Banking Service (also known as M-banking, SMS banking, m-banking, etc).

M-banking provides customers with the opportunity to carry out banking transactions using their mobile phones. Indeed, the ubiquity of mobile devices, coupled with the swift data transmission technologies, enable users to transform their mobile phones into banking units anywhere at any time (Cruz *et al.*, 2010). The intention to

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use mobile banking among customers can be linked to mobile phone usage behaviour to establish how likely it is for customers to adopt mobile banking. From the literature, many scholars (Ajzen, 1991; Davis, 1989) have proven that individual behaviour can be explained by using behavioural intention.

In spite of the availability and accessibility of technologically advanced mobile devices, mobile banking services which use these devices have not been widely accepted by the customer. Technically, statistics-based analyses point to the chasm that exists between technical advancements in the telecommunications sector and the apparent scepticism among potential customers of mobile financial services (Laukkanen & Kiviniemi, 2010; Cruz *et al.*, 2010). As such, it is imperative to delve into the causes of this slow rate of customer adoption and to understand the adoption behaviour processes of different customers who are perceived as adopters. This has led to calls for more academic research on adoption behaviour in mobile commerce context. Some researchers (Kim *et al.*, 2007; Zhou *et al.*, 2010) have called for further studies on customer value perceptions to examine its importance in driving customer behaviour intention in m-banking. Thus, this paper aims to answer that call by examining customer behaviour in the mobile banking service era, and particularly on the influence of perceived value on the adoption of intention behaviour.

THEORETICAL BACKGROUND

Thaler's (1985) proposed Mental Accounting Theory is based on the prospect theory by Kahneman and Tversky (1979) that explains human decisions from the perspective of value maximization under conditions of uncertainty. Thaler (1999) suggested mental accounting as the set of "cognitive operations used by individuals and households to organize, evaluate and keep track of financial activities." Mental accounting theory is considered as an improvement over prospect theory that incorporates compound outcomes, while the value function under prospect theory is defined based on a single one-dimensional outcome. Value in mental accounting is defined as the net benefit of an overall assessment that is based on the comparison between benefits and sacrifices (Thaler, 1985). Mental Accounting Theory also explains online purchasing decisions and the adoption of other technological applications by examining customer's behaviour towards the value of such technologies (Gupta & Kim, 2010). As customers tend to make decisions based on multiple elements, Mental Accounting Theory is, therefore, more appropriate for the analysis of mobile banking services adoption.

Customers' approval of technology to a significant level is related to decision making where customers are expected to use a particular technology. The adoption is also depending on the value brought by the technology. The Unified Theory of Acceptance and Use of Technology

(UTAUT), proposed by Venkatesh *et al.* (2003), was basically developed as a technology acceptance model with the idea of creating information technology (IT) acceptable to users, thus promoting unity of view. UTAUT identified four determinants in the users' adoption intentions and their behaviour. Users' decisions in usage intentions and usage are the key to what results to expect, the influence of other people, the persisting conditions as well as the effort to be applied in usage. In addition to these determinants, gender, experience, age and the interests of the potential users have strong indirect influence on users' behaviour for use of information systems. Other important factors that benefit the usage of new technology are performance expectancy and effort expectancy (Venkatesh *et al.*, 2003; Zhou *et al.*, 2010).

UTAUT has no construct, which represents an overall estimation of the adoption service such as attitude. Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour. However, attitude is hypothesized not to have a direct effect on behavioural intention on UTAUT. In the final UTAUT, Venkatesh *et al.* (2003) conclude that attitude construct is significant only when specific cognitions (performance expectancy and effort expectancy) are not included in the model. Thus, this study incorporates perceived value from the Mental Accounting Theory into UTAUT model.

DETERMINANTS OF PERCEIVED VALUE

The most widely accepted definition of the perceived value is Zeithaml's (1988, p. 14) definition, that is, "the overall assessment on the product (or service) utility determined by customer's perceptions of what is received and what is given". In services, perceived value involves the comparison of what he has to give up (i.e., sacrifices) and what one is getting (i.e., benefits) to receive the service (Choi *et al.*, 2004). Therefore, perceived value of mobile banking service in this study involves the customers' overall perception of the benefits and sacrifices required to use the particular technology. The benefits include the value desired by the customer from m-banking service. Sacrifices, on the other hand, include monetary and non-monetary considerations (Thaler, 1985). As such, this study will measure performance expectancy and effort expectancy based on UTAUT model as benefit factors while perceived cost and perceived risk as sacrifice factors.

THE PROPOSED MODEL

The proposed model of this study integrates UTAUT with the Mental Accounting Theory in interpreting adoption intention behaviour. The proposed construct of perceived value from Mental Accounting Theory will add to the existing body of knowledge. To illustrate this, many studies on customer behaviour have used the concept of value in a fixed context. These studies did not consider the risk which influences customer behavioural

intention within the scepticism environment such as mobile electronic services (Gupta & Kim, 2010). Therefore, this study aims to present a better understanding of the intention behaviour of mobile banking adoption using benefit factors (performance expectancy and effort expectancy), in agreement with sacrifice factors (cost and risk). In the next section, we describe several propositions as presented in Fig.1.

RESEARCH PROPOSITIONS

A. Perceived Value in Relation to Explain Adoption Intention

Sirdeshmukh *et al.* (2002) observed that customer value is a super ordinate goal which is likely to regulate subordinate goals such as behavioural intentions. Perceived customer value is considered highly imperative as far as the purchase intention is concerned (Dodds & Monroe, 1985). Furthermore, various studies (Dodds *et al.*, 1991; Monroe, 1990; Zeithaml, 1988) have established a positive influence of perceived

value on the willingness or intention to purchase. A study by Pura (2005) indicates that multidimensional perceived value of customers has a significant influence on the behavioural intentions and that shopping behaviour of customers is shaped by the perceived value of the product or service. Customer perceived value is usually an interactive, preferential and relative experience and easing of customer perceived risk may also enhance customer perceived value. The same is applicable in online-based market.

Value maximization is an essential principle of decision-making for mobile value-added service users. A study by Kleijnen *et al.* (2007) indicates that customers' attitude could not be a determining factor of adoption intention of mobile services, whereas perceived value might play a more important role. The research by Dodds and Monroe (1985) initially investigates the relationship between perceived value and purchase intention, in which, price

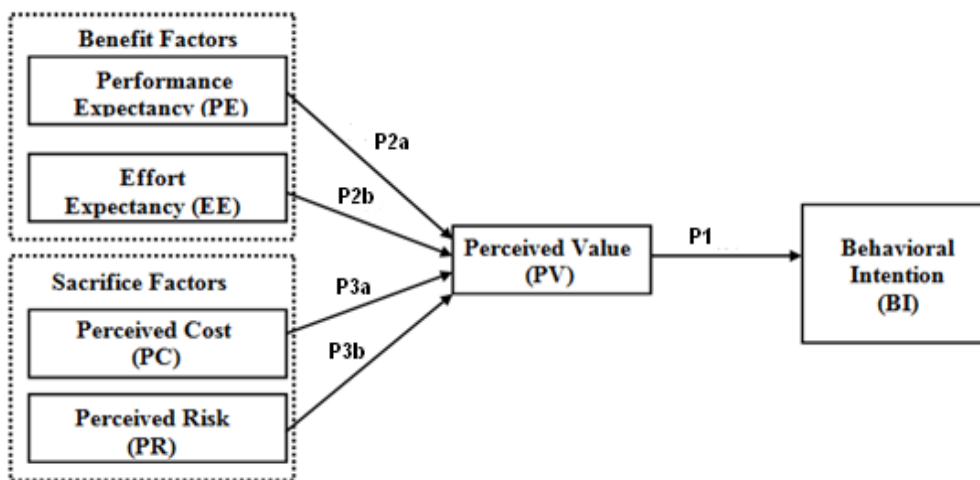


Fig.1: The Suggested Model

and perceived quality were used as two antecedents of perceived value. Later on, Wood and Scheer (1996) study improved the model, which integrates perceived risk as an external variable into the model. In Kleijnen *et al.*'s (2007) research, the value model depended on costs and benefits to explain the acceptance of mobile services, which investigated the positive effects of time convenience, user control on perceived value, and the negative effects of perceived risk and cognitive effort on perceived value. Perceived value has strong effects on intentions to purchase a commodity and the willingness of a customer to adopt the service (e.g., Chen & Dubinsky, 2003; Kim *et al.*, 2007). Therefore, a link between adoption intentions and perceived customer value may be established. Hence, this current study proposes that:

P1: Perceived value has positive effect on behavioural intention to adopt mobile banking services.

B. Benefit Factors, Sacrifice Factors, and Perceived Value

Banking institutions can maximize customer's perceived value by either enhancing the perceived value like quality, and/or by decreasing their sacrifices such as price paid and risk to take. Customer's satisfaction, on the other hand, can be improved by creating customer value through various ways. For instance, customer's value can be enhanced by improving the effectiveness, efficiency, flexibility, convenience and differentiation of services that can be delivered using

mobile technology. These are the benefit factors that are more likely to increase customer's perceived value, hence induce them to adopt mobile banking. There are other important dimensions of customer's perceived value which are the usefulness and ease of use of the service delivery. If the banking institutions are able to improve these elements, it will be highly beneficial for customers.

Performance expectancy and effort expectancy can be defined based on the mobile banking services adoption context. In particular, performance expectancy, according to Knutsen *et al.* (2005), is the degree to which mobile banking could extend benefits to customers in their banking activities. Effort expectancy, on the other hand, is the degree of effort a customer believes he or she needs to spend in using mobile banking services (Yeow *et al.*, 2008). Some previous empirical studies by Kim *et al.* (2007) reported that usefulness and technicality, as determined by users' perceptions regarding the ease of use (particularly performance expectancy and effort expectancy in UTAUT), are important deciding factors in enhancing customer value in mobile internet service settings. In addition, there is a study by Han and Yang (2010) that examined consumer's switching intention from using internet banking to mobile banking services based on the consumer perceived value perspective. Han and Yang (2010) reported that the relative advantage of mobile banking service and the improvement of satisfaction in internet banking positively affect perceived value.

As long as the service provider is able to offer superior benefits to the customers, their perceived value will be enhanced. Therefore, this present study proposes that:

P2: Perceived Value is positively affected by benefit factors.

Specifically:

P2a: Perceived Value of mobile banking services is positively affected by Performance Expectancy.

P2b: Perceived Value of mobile banking services is positively affected by Effort Expectancy.

Service value, on the other hand, has been consistently modelled as the contrasts between service quality attributes and sacrifice (Brady *et al.*, 2005; Sweeney *et al.*, 1999). In this context, sacrifice is construed as a broad composition that comprises monetary and nonmonetary costs. Brady *et al.* (2005), in their research, reported sacrifice to be a strong predictor of value across multinational and multiservice settings. In the study, perceived sacrifice comprises all costs the consumer has to undertake when using a service. There are particularly economic and non-economic costs involved. Economic costs comprise the purchase cost of the device and the payment billed to the mobile service provider. On the other hand, the non-economic costs include the possible risk of using the facility.

The economic costs are considered as an important determinant of adoption for users when evaluating the mobile banking services. Users will perceive lower

values for the service if in their opinion the economic cost is high. This is likely to give a negative influence on the service usage. Han and Yang (2010), in their study, indicated that perceived value is negatively affected by the perceived costs of mobile banking service. Perceived risk, on the other hand, is another form of perceived sacrifice. A study by Gupta and Kim (2010) reported on the effect of perceived value on online purchase decision making like online bookstore. In the study, perceived risk and perceived cost negatively influence perceived value. Therefore, this present study also proposes that:

P3: Perceived Value is negatively affected by sacrifice factors.

Specifically:

P3a: Perceived value of mobile banking services are negatively affected by perceived cost.

P3b: Perceived value of mobile banking services are negatively affected by perceived risk.

CONCLUSION

Perceived customer value is considered as one of the most imperative factors in the study of customer intention to adopt. In this respect, perceived value is a powerful predictor in attracting new customer and retaining new ones and should thus be perceived with great importance by e-marketers. Creating customer value is considered an important consideration for companies which seek to promote competitive advantage. All the factors

related to perceived value, either they are qualitative or quantitative (subjective or objective), should be analyzed in order to effectively evaluate perceived value and consequently the intention to adopt. With this knowledge companies will be able to improve the perceived value of their products and services and consequently are more likely to influence the customer's intention to adopt.

REFERENCES

- Ajzen, I. (1991). The Theory of Planned Behaviour. *Organizational Behaviour and Human Decision Processes*, 50(2), 179-211.
- Brady, M. K., Knight, G. A., Cronin, J. J., Hult, G. T., & Keillor, B. D. (2005). Removing the Contextual Lens: A Multinational, Multi-setting Comparison of Service Evaluation Models. *Journal of Retailing*, 81(3), 215-230.
- Chen, Z., & Dubinsky, A. J. (2003). A Conceptual Model of perceived Customer Value in E-commerce: A Preliminary Investigation. *Psychology & Marketing*, 20(4), 323-347.
- Choi, K.-S., Cho, W.-H., Lee, S., Lee, H., & Kim, C. (2004). The Relationships Among Quality, Value, Satisfaction and Behavioral Intention in Health Care Provider Choice: A South Korean Study. *Journal of Business Research*, 57, 913-921.
- Cruz, P., Neto, L., Muñoz-Gallego, P., & Laukkanen, T. (2010). Mobile Banking Rollout in Emerging Markets: Evidence from Brazil. *The International Journal of Bank Marketing*, 28(5), 342-371.
- Davis, F. (1989). Perceived Usefulness, Perceived Ease of Use, and Use Acceptance of Information Technology. *Management Information Systems Quarterly*, 13(3), 319-340.
- Dodds, W. B., & Monroe, K. B. (1985). The Effect of Brand and Price Information on Subjective Product Evaluations. *Advances in Consumer Research*, 12(1), 85-90.
- Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). The Effects of Price, Brand, and Store Information on Buyers' Product Evaluations. *Journal of Marketing Research*, 28(3), 307-319.
- Gupta, S., & Kim, H.-W. (2010). Value-Driven Internet Shopping: The Mental Accounting Theory Perspective. *Psychology & Marketing*, 27(1), 13-35.
- Han, C., & Yang, S. (2010). *Value-based Adoption of Mobile Banking Service: A Multi-Channel Perspective*. Paper presented at the International Conference on Information Networks and Automation (ICINA).
- Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision Under Risk. *Econometrica*, 47, 263-291.
- Kim, H.-W., Chan, H. C., & Gupta, S. (2007). Value-based Adoption of Mobile Internet : An Empirical Investigation. *Decision Support System*, 43, 111-126.
- Kleijnen, M., Ruyter, K. d., & Wetzels, M. (2007). An Assessment of Value Creation in Mobile Service Delivery and the Moderating Role of Time Consciousness. *Journal of Retailing*, 83(1), 33-46.
- Knutsen, L., Constantiou, I. D., & Damsgaard, J. (2005). *Acceptance and Perceptions of Advanced Mobile Services: Alterations During a Field Study*. Paper presented at the International Conference on Mobile Business.
- Laukkanen, T., & Kiviniemi, V. (2010). The Role of Information in Mobile Banking Resistance. *The International Journal of Bank Marketing*, 28(5), 372-388.

- Pura, M. (2005). Linking Perceived Value and Loyalty in Location Based Mobile Services. *Managing Service Quality*, 15(6), 509-538.
- Puschel, J. I., Mazzon, J. A., & Hernandez, J. M. (2010). Mobile Banking: Proposition of An Integrated Adoption Intention Framework. *The International Journal of Bank Marketing*, 28(5), 389-409.
- Riivari, J. (2005). Mobile Banking: A powerful New Marketing and CRM Tool for Financial Services Companies All Over Europe. *Journal of Financial Services Marketing*, 10(1), 11-20.
- Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer Trust, Value, and Loyalty in Relational Exchanges. *Journal of Marketing*, 66, 15-37.
- Sweeney, J. C., Soutar, G. N., & Johnson, L. W. (1999). The Role of Perceived Risk in the Quality-Value Relationship: A Study in a Retail Environment. *Journal of Retailing*, 75(1), 77-105.
- Thaler, R. H. (1985). Mental Accounting and Consumer Choice. *Marketing Science*, 4, 199-214.
- Thaler, R. H. (1999). Mental Accounting Matters. *Journal of Behavioral Decision Making*, 12, 183-206.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology : Toward a Unified View. *Management Information Systems Quarterly*, 27(3), 425-478.
- Wood, C. M., & Scheer, L. K. (1996). Incorporating Perceived Risk Into Models of Consumer Deal Assessment and Purchase Intent. *Advances in Consumer Research*, 23(1), 309-404.
- Yeow, P., Yuen, Y., & Tong, D. (2008). User Acceptance of Online Banking Service in Australia. *Communications of the IBIMA Journal*, 1, 191-197.
- Zeithaml, V. A. (1988). Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, 52(July), 2-22.
- Zhou, T., Lu, Y., & Wang, B. (2010). Integrating TTF and UTAUT to Explain Mobile Banking User Adoption. *Computers in Human Behaviour*, 26(4), 760-767.



Assessing the Effects of Empowerment and Emotions on Job Satisfaction in Hotel Service Environments

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ABSTRACT

While empowerment has been encouraged in the hotel industry, a basic understanding on the possible relationship between empowerment and positive and negative emotions has yet to emerge. Evidence on the effects of empowerment and positive and negative emotions on job satisfaction is also limited. Therefore, the objectives of the study are threefold: to empirically investigate the relationship of empowerment on both positive and negative emotions and job satisfaction, to test whether the positive and negative emotions impose effect on employee's job satisfaction and to examine the effect of individual empowerment components (task meaningfulness and freedom to perform) on job satisfaction. The approach of the study is based on questionnaires distributed to the frontline hotel employees in Malaysia. It was found that empowerment has a significant positive relationship with positive emotions and a negative relationship with negative emotions. The results also indicate that both empowerment and positive emotions have a significant influence on employee's job satisfaction. Moreover, as hypothesized, the results support the negative relationship between negative emotions and job satisfaction. Another noteworthy finding was that, the effect of task meaningfulness on job satisfaction was significantly higher than freedom to perform. It is significant that managers should consider employing different forms of empowerment in order to maximize employee's potential. The management must play an important role in monitoring employee's emotions at work.

Keywords: Empowerment, positive and negative emotions, job satisfaction, hotel industry, services management

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INTRODUCTION

Employee empowerment has been touted as one of the most popular management strategies in the organization, especially for

the one who serves the customer directly. In the mainstream management literature, empowerment is regarded as an important process of power delegation in decision making process (Conger & Kanungo, 1988), and experience psychological state or set of cognition (Zhang & Bartol, 2010). Customer contact employees, or always known as front line employees, are the key contacts who are constantly required to display sincerity, responsiveness, and appropriate sets of emotion during service delivery.

Employee empowerment is receiving increased attention in services management and services marketing literature. Some previous studies have concentrated on the general concept of empowerment (Brymer, 1991; Klidas *et al.*, 2007), relationship of empowerment with job satisfaction (Snipes *et al.*, 2005; Spreitzer *et al.*, 1997; Gazzoli *et al.*, 2010; Pelit *et al.*, 2011), influence of employee customer orientation and organizational supporting factors on perceived empowerment (Ro & Chen, 2011), and service quality (Snipes *et al.*, 2005; Gazzoli *et al.*, 2010). In addition to empowerment, emotion management is also becoming important in the workplace, particularly in the service industry. A number of studies in recent years had examined the role of emotions in the workplace (Weiss & Cropanzano, 1996; Arvey *et al.*, 1998; Fisher & Ashkanasy, 2000; Brief & Weiss, 2002). In particular, research into emotions has focused on one specific area namely emotional labour, which dubbed by Hochschild (1983) as management of emotions as part of work

role. Following a number of emotional labour studies, a central focus of its research however concentrates on how individuals achieve the desired emotional displays (Diefendorff *et al.*, 2005). Thus, this leaves a gap in terms of research of the actual emotions felt by the service providers. While empowerment has been encouraged in the service industry especially in the hotel industry, and reasonably researched by past researchers (Brymer, 1991; Parsons, 1995; Hales & Klidas, 1998; Gazzoli *et al.*, 2010), a basic understanding on the possible relationship between empowerment and positive and negative emotions has yet to emerge. Evidence on the effect of empowerment and positive and negative emotions on job satisfaction is also limited. In addition, although the relationship between empowerment and its effect on job satisfaction has been established (see Gazzoli *et al.*'s work, 2010), their study did not specifically investigate the effect of individual empowerment dimensions on job satisfaction. This leaves a gap in the empowerment literature as different empowerment component may yield different influence on job satisfaction.

This article builds on the prior conceptualization of Weiss and Cropanzano's (1996) theory on Affective Event Theory (AET). AET proposes that specific features of work (such as autonomy, participation, and employee welfare) have influence on the arousal of emotions and mood at work which eventually leads to job satisfaction of employees. In this study, empowerment construct is treated as one

important features of work, which may have significant influence on job satisfaction and positive and negative emotions as suggested by AET. Against this backdrop, the current study chose AET theory as a guiding background in examining the relationship of empowerment, positive and negative emotions and job satisfaction. Ideally, AET theory presents a suitable background for the current study since the framework looks into the association between emotions, mood and satisfaction. In addition to this, the current study also examined the role of empowerment and its linkages with the construct identified in AET.

Therefore, the objectives of the study are threefold: to empirically investigate the relationship of empowerment on both positive and negative emotions and job satisfaction, to test whether the positive and negative emotions impose effect on employee's job satisfaction and to examine the effects of individual empowerment component; namely, task meaningfulness and freedom to perform on job satisfaction.

BACKGROUND OF THE STUDY AND HYPOTHESES DEVELOPMENT

Empowerment

A dynamic business environment has been forcing service organizations to modify their traditional management techniques (Hancer & George, 2003). Empowerment interventions have become very popular, where 1990s have been hailed as the "empowerment era" (Hardy & Leiba-O'Sullivan, 1998). Employee empowerment has been seen as one of the significant

management techniques in dealing with the modern global business management (Foy, 1994), and often discussed as a new managerial approach among business leaders (Conger & Kanungo, 1998; Kanter, 1983).

The central meaning of empowerment denotes enabling people to do things that they would otherwise, be unable to do. Literally, it is to remove the restrictions-artificial or otherwise that prevent people from doing the things that it is within their ability to achieve (Jenkins, 1996, p. 37). Empowerment is, in essence, the transfer of power within organisations from top management to middle management and so on, all the way to the front-line employees (Clutterbuck, 1994, p. 12). The term 'empowerment' has been used interchangeably with delegation and employee participation (Conger & Kanungo, 1988; Thomas & Velthouse, 1990). Conger and Kanungo's (1988) most cited definition of empowerment defines it as: "a process of enhancing feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information" (p. 471).

Empowerment has been distinguished into two separate concepts, which are relational and motivational. Empowerment as a relational concept is concerned with management style and employee participation; for example, it becomes the process by which a leader or a manager shares his or her

power with the subordinates (Conger & Kanungo, 1998), whereas empowerment as a motivational concept considers power and control as motivational and/or expectancy belief states that are internal to individuals (Conger & Kanungo, 1998). Furthermore, power in this motivational sense refers to an intrinsic need for self-determination (Deci, 1975) or a belief in personal self-efficacy (Bandura, 1986). Thus, motivational construct is more towards individual and personal, and therefore, more concerned about discretion, autonomy, power and control. Spreitzer (1995) came up with a model and defined empowerment as increased intrinsic motivation manifested in four cognitive dimensions: meaning (value of work goal or purpose), competence (self-efficacy), self-determination (autonomy in initiation and continuation of work behaviours) and influence (influence on work outcomes). Thus, the above meaning which is often referred to as 'psychological empowerment' denotes employee's feelings of empowerment as reflected in: competence or confidence in their ability to perform task well; feel impact or influence in their work role; perceived self-determination or freedom to choose how they carry out their tasks; and a sense of meaning or feeling that their work is personally important (e.g., Conger & Kanungo, 1988; Thomas & Velthouse, 1990; Spreitzer, 1995). Spreitzer's conceptualisation is considered as motivational concept

because the perspective is a bottom-up processing which take into consideration the employee's perception (Mishra & Spreitzer, 1998; Quinn & Spreitzer, 1997). From this perspective, empowerment is seen as an experiential construct, and "an enabling, rather than a delegating, process" (Conger & Kanungo, 1988, p. 474). Accordingly, for the purpose of this research, empowerment is viewed as a motivational concept since it involves the performance of service providers at work.

While a large amount of studies have been written on the subject of empowerment, its application in the service area is still considered underdeveloped. Furthermore, empowerment tends to be discussed at the cognitive level than realized in practice (Lin, 2002). As noted earlier, multidimensional measure of psychological empowerment in the workplace has been developed by Spreitzer (1995). In similar vein, Koberg *et al.* (1999) examined the correlates and consequences of psychological empowerment. The study found that empowerment perception increased with organizational rank and with leader approachability, group effectiveness, and worth of group. Fulford and Enz (1995) assessed the effects of perceived empowerment on attitudes of employees in several service-based organizations. The results showed that satisfaction, performance, loyalty, and service delivery were explained by the three

dimensions of empowerment namely meaning, competence and influence. Thus, the findings confirmed that empowerment leads to increased levels of employee and customer's satisfaction and loyalty. Despite the established three dimensions found in previous study (Fulford & Enz, 1995; Spreitzer, 1992), this study conceptualized empowerment into two dimensions; namely, task meaningfulness and freedom to perform. This is in line with the study conducted by Gazolli *et al.* (2010), in which they found that empowerment was measured into two constructs, which were later named as 'task meaningfulness' and 'freedom to perform'.

In general, most of the studies draw the links between empowerment and its outcomes, for example customer satisfaction (Sparrow, 1994; Moore, Hopkins, & Hopkins, 1998; Fulford & Enz, 1995) and job satisfaction (Fulford & Enz, 1995; Lin, 2002; Hocutt & Stone, 1998; Chebat & Kollias, 2000; Koberg *et al.*, 1999; Melhem, 2003; Kirkman & Rosen 1999; Sparrowe, 1994). According to Pelit *et al.* (2011), "empowerment is thought to enhance job satisfaction". Interestingly, many researches on empowerment also concentrate on the effect of empowerment on service quality (Goodale, Koerner & Roney, 1997; Hartline & Ferrell, 1996; Gazzoli *et al.*, 2010).

Emotions

As the concept of employee empowerment grows in practice, many areas for research are opened. Presently, more theories and

research have focused on the role of emotion in organisational life. Emotional labour is one of the emerging research areas in emotions that has received significant attention among researchers. The role of emotion displayed by employees is important for the customers of service organisations who often interact with one or two boundary-spanning employees during a given visit (Bowen & Schneider, 1985). Thus, the role of emotion is crucial for service organisation and is relevant to the empowerment of employee, as Lashley (2001, p. 172) puts it:

One of the rarely expressed, but clearly present aspirations for empowerment is that it will enable organisational members, whether workers or managers, to manage their emotions in a way that ultimately enhances organisational effectiveness

Lashley (2001) further argued that service organisations require employees to engage customers in a way that builds a perception of genuine delight in meeting their service needs. Therefore, it is hoped that empowerment will enable employees to generate feelings of loyalty and a sense of personal worth within the organisation. Accordingly, empowerment becomes an initiative that attempts to create an emotional bond between an individual and an organisation. However, there is a dearth of research which looks at the relationship between the role of employee empowerment and their emotions, in

particular, positive and negative emotions. Individual employees must still display and regulate the right emotions at work although they are empowered at work. Thus, there is a need for a research that examines the relationship between empowerment and employees' positive and negative emotion, especially among the front-line employees. Accordingly, as noted above, the primary focus of this paper is on determining the relationship between empowerment and positive and negative emotions. In addition, this study also seeks to examine the relationship between empowerment and job satisfaction, as well as examining the effect of empowerment dimensions with job satisfaction. The results of this study will not only increase the understanding of the empowerment-employee relationship and empowerment-employee satisfaction relationship; instead they offer organizations an alternative way of responding to and meeting the changing needs and expectations of their customers.

According to Lashley (2001), empowerment has something to offer in developing positive feelings about the organisations. Lashley (2001) posited that several techniques be introduced in an organisation such as flatten structures, involving employees in decision making and thereby, communicating employees' importance to the organisation, improving the flow information. Accordingly, by this reducing fear of the unknown, and meet employees' security needs by providing employees training and long-term employment, many of the negative

and destructive aspects of emotions in organisations can be removed. Thus, when front-line employees have greater freedom in deciding for example when to smile, how to smile, or even if to smile, then eventually, emotional labour will be less harmful consequences for staff. Significantly, Lashley (2001) suggested that empowerment has the potential to create positive emotional responses to working in an organization.

Frontline employees in service industries are frequently dealt with a huge amount of service work that requires them to make decisions immediately and display a set of appropriate emotions when serving the customers. The display of the right emotions (according to organisation's wish) is widely termed as "display rules" (Ekman, 1973) that provide a certain standard in expressing appropriate emotions by giving emphasis on public display rather than the actual feeling of employees (Ashforth & Humphrey, 1993). These 'emotional word demands', as termed by Mann (1990), require front liner to express and suppress certain emotions (Schaubroeck & Jones, 2000; Wharton & Erickson, 1995). The emotional display rules stipulate the required behaviour for effective job performance (Diefendorff & Richard, 2003). Accordingly, to deliver job effectively, some flexibility at work, certain amount of power, and meaningful job would be an important ingredient to help employees deliver suitable emotions during the service transaction. Although there is strong theoretical and empirical support for the requirement of display rules at work, it

might be argued that ‘felt emotions’ have significant effect as compared to displayed rules. For instance, individuals who are high in negative emotions may perceive more demands in displaying positive emotions (Gosserand & Diefendorff, 2005) rather than the one who displays felt emotions. Hence, the current paper argues that empowerment could be an important strategy to help this employee to deliver the service well while managing their emotions at the workplace. Empowerment is, therefore, expected to assist employees in regulating positive emotions and is expected to reduce the negative emotions faced by them. Thus, the following hypothesis is proposed:

Hypothesis 1a: Perceived empowerment is positively related to positive emotions

Hypothesis 1b: Perceived empowerment is negatively related to negative emotions

Empowerment and Job Satisfaction

Job satisfaction or employee satisfaction has been defined as “the pleasurable emotional state resulting from the appraisal of one’s job as achieving or facilitating the achievement of one’s job value” (Locke, 1969, p. 316). According to several authors (Fulford & Enz, 1995; Spreitzer, 1995), perceptions of empowerment can enhance the value of work for individuals, increase job satisfaction and contribute to work productivity and success. Moreover, empowerment of front liners may lead to attitudinal and behavioural change. Rafiq and Ahmed (1998) claimed that an increased in job satisfaction is one

of the results of attitudinal change due to empowerment. Accordingly, it is predicted that job satisfaction and perceived work productivity/effectiveness could be the consequence or outcome of employee empowerment (Koberg *et al.*, 1999). Spreitzer *et al.* (1997) argued the notion of empowerment is derived from the theories of participative management and employee involvement. According to these authors, the basic assumption of participative management is that sharing managers’ decision-making power with employees will enhance performance and work satisfaction. They supported that the main issues of the quality-of-life movement are enhancing employee satisfaction, improving intrinsic motivation and helping employees to feel good about their work and jobs. Therefore, employee satisfaction was one of the earliest anticipated outcomes of empowerment. An increase in job satisfaction may result in greater enthusiasm for the job (Rafiq & Ahmed, 1988). Previous empirical research has suggested a positive relationship between empowerment and job satisfaction (see Fulford & Enz, 1995; Ugboro & Obeng, 2000) and those employees who are empowered reported higher job satisfaction at work (McDonald & Siegall, 1993; Snipes *et al.*, 2005). Aligned with these concepts, this study develops the following hypotheses to be tested:

Hypothesis 2: Perceived empowerment is positively related to employee’s job satisfaction

Emotions and Job Satisfaction

Research on emotions has only begun to examine the role of emotions and its effect in the workplace (Weiss & Cropanzano, 1996; Brief & Weiss, 2002), despite its pervasiveness and inseparability in the human experience and organizational life (Glomb & Tews, 2004). The role of emotion in the workplace, for example, has gained some attention in the last decade (Hochschild, 1983; James, 1989; Rafaeli & Sutton, 1987, 1989, 1991; Van Maanen & Kunda, 1989; Wharton, 1993) and has been studied from various professions, such as flight attendant (Hochschild, 1993), supermarket clerk (Rafaeli & Sutton, 1993), theme park ride operator (Van Maanen & Kunda, 1989), and many others. The outcome from these studies suggests that the way an individual displays feelings has ‘a strong influence on the quality of the service transaction, the attractiveness of the interpersonal climate and the experience of emotion itself’ (Ashforth & Humphrey, 1993, p. 88).

One particular area that has received the most attention in emotions studies is emotional labour, which is regarded by Hochschild (1983) as a study of emotion regulation at the workplace. According to the emotional labour theories (Hochschild, 1983; Ashforth & Humphrey, 1993), there are two main strategies involved during these emotion regulations, which are, surface acting and deep acting. These strategies are normally experienced by the employees in order to follow display rules of the organization. The basic purpose of

display rules is to dictate the emotions that employee express (Diefendorff & Gosserand, 2003). Surface acting refers to regulating expressions, or “faking” the emotion. In other words, the individual simply “puts on a mask” and displays the correct emotion, regardless of what that person may actually be feeling (Grandey, 2000). Deep acting, on the other hand, takes place when the individual consciously tries to modify his or her feelings so that they are consistent with the desired emotional expression (Grandey, 2000). Service employees in particular, are expected to follow display rules by displaying positive emotions and hiding negative emotions (Grandey & Brauburger, 2002; Diefendorff & Richard, 2003).

Although the notion of emotional labour is considered as one of the most important research topics in emotion management studies, and there is reasonable evidence provided by past research on the validity of surface acting and deep acting, it might be argued that these variables are influenced by dispositional affect and that any relationship between them are spurious (Gosserand & Diefendorff, 2005). Hence, the current paper argued that felt emotions or affect-based personality traits (Gosserand & Diefendorff, 2005) such as positive affectivity and negative affectivity are more relevant and genuine in delivering the service at work. Thus, this study is built primarily on the theoretical conceptualization, namely, ‘Affective Event theory’ (AET) as its underpinning theory. The affective events theory was developed

by Weiss and Cropanzano (1996) and has received considerable attention where it explicitly states that characteristics of the job make the occurrence of certain types of work events more likely than others. AET conceptualization claimed that affective reactions may have immediate impact on work actions (affect-driven behaviours) and may influence work attitudes and cognitive-driven behaviours over time. This is in line with motivational theories, where work environment influence the effective and evaluative response of the employee (Hackman & Oldham, 1976).

The theory has identified that emotions and moods may influence job performance and job satisfaction. These affective reactions (i.e. emotions) at work are thought to lead to instant, affect-driven behaviours (for example, smiling, crying, jumping and screaming) and also to contribute to work attitude (such as job satisfaction, frustration and burn-out). Weiss and Cropanzano (1996) conceptualized the construct of effect into two major categories that include mood and emotions. However, the current study is only interested to look at emotions, which are divided into positive emotions and negative emotions.

AET suggest that affective reactions are believed to be the direct antecedents of work attitudes and affect driven behaviours. Previous research (Weiss *et al.*, 1999) found that the average level of pleasant mood at work over 16 days predicted ratings of overall job satisfaction, which suggests that job satisfaction is directly influenced by felt

emotions (state affect) at work.

Individual employees who pose positive emotions are likely to report higher satisfaction. As noted previously, suitable emotional display prescribes employee behaviour where positive emotions could be useful in giving job satisfaction at work. A study conducted by Sharma and Black (2001) on beauty therapist revealed that although they engaged in deep acting; a situation where they have to 'mask' their own feelings, they were reasonably free to perform their work according to their wish. Moreover, Sharma and Black (2001) concurred that emotional work may bring both stress and satisfaction. Hence, this suggest that positive emotions may have potential in contributing to employee's job satisfaction as they are free to perform their work, as part of autonomy given to them. This autonomy is regarded by Wharton (1993) as a situation where emotional aspects of their work as a source of satisfaction rather than exploitation. Nevertheless, to date, not much research has been conducted in relation the role of emotions and its influence on the employee's job satisfaction except for some work done by Wegge *et al.* (2006), where they found positive emotions, negative emotions and general job satisfaction are related but clearly separable constructs. Based on this idea, this paper argues that the display of employees' felt emotion may have some relationship on their satisfaction at work. Accordingly, in the present investigation, positive emotions are expected to have positive relationship with employee's job

satisfaction and negative emotions are on the other side. Thus:

Hypothesis 3a: Positive emotion is positively related to employee's job satisfaction

Hypothesis 3b: Negative emotion is negatively related to employee's job satisfaction

METHODS

Participants and Procedure

Empirical research using survey was carried out to examine the proposed hypotheses. The constructs used were measured using established close-ended questions. Majority of the questions demonstrate sufficient cronbach alpha. The questionnaires were conveniently distributed to three-, four- and five-star hotel employees. A convenience sample of 325 employees was selected from hotels located throughout Peninsular Malaysia. Data were collected via a face-to-face-administered questionnaire. Table I summarizes the demographic profile of respondents. The majority of the respondents were male (51.7%), Malay (75.1%), and between 25 and 34 years old (39.1%). Most respondents worked in a front office department (34.5%) or in the food and beverage department (26.2%). The average tenure of the employee was 0-2 years (53.2%). A majority of the hotels were five-star hotels (48.9%), of Malaysian origin (62.8%), and are centrally located (48.3%) in Peninsular Malaysia, with either one to less than 4 years' tenure (26.4%) or 4 to less than 8 years' tenure (21.8%).

Measures

Empowerment

This scale consists of ten items adapted from Aziz (2007), was initially developed by Fulford and Enz (1995) and Spreitzer's (1992), and employed in this study. The measure includes items such as "My work is important to me" and "I have freedom in determining how to do my job" and have scale anchors ranging from (1) strongly disagree to (5) strongly agree.

TABLE 1
Demographic Profile of the Respondents and hotel characteristics

Demographics	Sample N= 325 Percentage
<i>Gender</i>	
Male	51.7
Female	48.3
<i>Age</i>	
Under 20	6.8
20-24	31.4
25-34	39.1
35-44	18.2
45-64	4.6
<i>Ethnicity</i>	
Malay	75.1
Chinese	10.5
Indian	7.4
Others	7.1
<i>Hotel Star Rating</i>	
3 Stars	14.5
4 Stars	36.6
5 Stars	48.9
<i>Country of Hotel Origin</i>	
Malaysia	62.8
Asian	23.4
International	13.8

TABLE 1 (continue)

<i>Location of Hotel</i>	
<i>(Regional)</i>	48.3
Central	34.8
North	3.4
South	13.5
East Coast	
<i>Department</i>	
Front Office	34.5
Food & Beverages	26.2
Housekeeping	15.4
Spa/Leisure/Gym	1.8
Public Area	2.8
Other Department	19.4
<i>Years of Experience</i>	
0-2 years	53.2
1-5 years	16.0
1-10 years	19.1
> 10 years	11.7

Positive and Negative Affectivity (PANAS)

PANAS was measured with Watson, Clark and Telgen (1988) which consist of 10 positive and 10 negative emotions-relevant words. Respondents were asked to rate their feelings towards the scale ranging from 1=very slightly to 5=extremely.

Job Satisfaction

The job satisfaction scales used in this study were adapted from Aziz (2007), based on the work of by Hackman and Oldham (1975). The original construct derived from the Job Diagnostic Survey (JDS) was measured by a five-item scale; however, the current study used only three-item scale due to the low loading found in Aziz's study on two-items (the low loading items are: "I frequently

think of quitting this job" and "People on this job often think of quitting". A sample of used items was, "I am satisfied with the kind of work I do in this job" and "Most people on this job are very satisfied with their jobs". The respondents were asked to rate the extent to which they agreed with each statement, where 1=strongly disagree to 5=strongly agree.

ANALYSIS AND RESULTS

Descriptive statistics, reliabilities and correlations using SPSS 17 were computed for each construct to obtain the results and to identify the relationships. Meanwhile, a reliability test using SPSS was conducted to examine the internal dependability of the constructs. The Cronbach's alpha of the constructs varies from .673 (job satisfaction) to .836 (positive emotions) which suggests the reliability of the study's constructs (see Table 2).

Table 2 presents cronbach-alpha and inter-constructs correlation. As depicted in Table 2, it was found that all hypotheses are supported as they provide evidence on the influence of empowerment on emotions and job satisfactions. In particular, empowerment was found to be significantly related with both positive emotions (.419) and job satisfaction (.399). On the contrary, empowerment was found to be negatively related to negative emotions although the correlation strength is not strong. As expected, positive emotions are positively related with job satisfaction and negative emotions are negatively related with job satisfaction.

Regression analysis results showed that empowerment dimensions; namely, 'task meaningfulness' were found to have stronger effect on job satisfaction as compared to the dimension of 'freedom to perform'. As shown in Table 3, the T value of task meaningfulness dimension was reasonably higher than freedom to perform dimension.

DISCUSSIONS

The overall purpose of this study was to examine the relationships between empowerment with a set of emotions, i.e. positive and negative emotions, and its influence on job satisfaction. This study primarily built on the conceptual developments of Weiss and Cropanzano (1996) as its theoretical background. The linkages among the tested constructs

provide support to AET conceptualisation. The present study offers new insights into the role of empowerment plays in the relationship between emotions and job satisfactions. Strong empirical support was found in all the hypothesized relationships. Consistent with Lashley's (2001) suggestion, our results indicate that the more committed employee were to empowerment, the stronger the relationships of empowerment with positive emotions. Likewise, the least committed employee was to empowerment, the stronger the negative relationships of empowerment with negative emotions. That is, perceiving high level of empowerment was associated with both felt positive emotions and negative emotions. The results suggest that frontline employees reported their commitment through the empowerment given to them by displaying

TABLE 2
Cronbach Alpha and Correlations among the Constructs

N=325	Cronbach Alpha	Empowerment	Positive Emotions	Negative Emotions	Job Satisfaction
Empowerment	.789	1			
Positive Emotions	.836	.419**	1		
Negative Emotions	.821	-1.04*	-1.66**	1	
Job Satisfaction	.673	.453**	.416**	-.211**	1

** Correlations are significant at 0.01 levels (two tailed)

* Correlations are significant at 0.05 levels (one tailed)

TABLE 3
Regression of Empowerment Component- Task meaningfulness and freedom to perform

Independent Variables	Dependent Variable Job Satisfaction		
	Beta	T	Sig
<i>Empowerment</i>			
Task Meaningfulness	1.105	5.036	.000
Freedom to Perform	.686	4.330	.000

the right felt emotion which brings their own satisfaction at work. Past research has ignored the role of empowerment in emotion management work. The results of the present study suggest that empowerment plays an important role in engaging the felt emotions displayed by the employees. Our results also confirm that apparent existence of display rules will not guarantee in emotion regulation as individuals must be personally committed to the display rules in order for them to affect behaviour (Gosserand & Diefendorff, 2005). However, as this study has proposed, felt emotions that are genuinely displayed by individual's employees empirically validate its linkages with empowerment due to genuine feeling expressed. Thus, the organization does not have to strive to ensure that their employees are committed to display rules (Gosserand & Diefendorff, 2005).

In addition, it was also found that empowerment is positively related to job satisfaction, and this finding is consistent with some previous studies by Fulford and Enz (1995), McDonald and Siegall (1993), Snipes *et al.* (2005), and Gazzolli *et al.* (2010). The results of this study confirm the notion that empowerment is a motivational concept which considers power and control as useful in contributing to the job satisfaction at the workplace. In line with past studies, the results validate the concept of 'psychological empowerment' which suggests that employee's feeling of empowerment is experienced when they are competence in their ability to perform task well and they have a sense of meaning

or feeling that their work is personally important (Thomas & Velthouse, 1990; Spreitzer, 1995).

Another notable finding is that-both positive emotions and negative emotions were significantly related to job satisfaction. This result confirms parts of the AET theory, suggesting that specific emotions or affective reactions have influence in shaping employees' work attitude and behaviour (Weiss & Cropanzano, 1996). The result is also consistent with a study done by Wegge *et al.* (2006). Since employees displayed their felt emotions at work, what they feel is transmitted to their satisfaction at work. Their positive state of emotions helps them to deliver the service well, and with the assistance of empowerment given, the situation has been translated into satisfaction. Thus, it appears that positive emotions, in particular, play an important role on employees' satisfaction at work.

One of the aims of the study was to examine the effect of individual empowerment component, i.e. task meaningfulness and freedom to perform on job satisfaction. The result on the effect of both construct is interesting. It was found that task meaningfulness has higher effect on job satisfaction as compared to the freedom to perform. Both correlations ($p < 0.01$) and regression analysis (significant at $p = 0.00$) indicate that tasks meaningfulness is significantly higher than freedom to perform. Therefore, it can be stated that the effect of task meaningfulness resulted in higher job satisfaction in comparison with freedom to perform. In other words,

employees who have a sense of care about the job and care with what they do at work (Meaningfulness) will likely be more satisfied at work as compared to those who have freedom and have a chance to use personal initiative at work. Hence, task meaningfulness was found to be much a stronger predictor of job satisfaction than freedom to perform. Accordingly, this finding suggests that freedom to perform poses less of an influence on job satisfaction. The result is exciting that meaningfulness emerged to engage employees more in esteeming their enjoyment and happiness at work. This is consistent with Spreitzer's (1995) idea whereby she claims that meaningfulness involves a complement between the needs of one's work role and one's values, beliefs, and behaviours. Thus, meaningful job and task can shape individual affective behaviour towards their work, which is in line with AET conceptualization that underpins the study. Past research has always publicized empowerment as the act of giving people the opportunity to make workplace decisions by expanding their autonomy in decision making (Vogt, 1997). Instead, the empirical findings of the current study have proved that employees who perceive their work as meaningful are more satisfied at work as compared to employee who have some power to make decision as well as having the chance to use their initiatives at work.

Based on the findings, it is concluded that empowerment has an important role in shaping the right emotions of the employees, and it also acts as an important strategy in

contributing to employee's satisfaction at work. Interestingly, the study also found that positive emotions have significant influence on employees' satisfaction at work.

CONTRIBUTIONS AND IMPLICATIONS

Given the importance of empowerment in an organisation for both employees and customers, the specific relationships identified in the current study have provided meaningful implications for service management practice and theory. The study has provided results that can be used by academicians and practitioners, especially hotel managers, as a basis for making decision in managing suitable empowerment in the organization, while nurturing positive emotions in order for job satisfaction to be achieved.

Our research has contributed to research on empowerment and emotions in several ways. First of all, our study has shown that empowerment has influence in managing employees' emotion at work. The amount of empowerment given has provided a landscape for employees to deliver their job well with the right felt emotions. This in the end has been translated to employees' satisfaction at work. Our study has also provided evidence that empowerment is indeed a suitable solution to improve the performance of the employees which is later reported to job satisfaction. This study also contributes to the empowerment theory by providing evidence that task meaningfulness dimension is stronger predictor to job satisfaction relative to

freedom to perform dimension. Thus, it further suggests that management must re-structure the empowerment programme in the organization so that the employee will efficiently perform their task at work with the freedom and power given to them. Hotel management needs to develop suitable empowerment strategy that will lead to higher positive emotions which in turn increase employees' affective commitment (Kazlauskaite *et al.*, 2006) to the organization.

The relations between emotions and job satisfaction provide further evidence where positive emotions are positively related to job satisfaction and negative emotions are negatively related to job satisfactions. The research findings indicate that positive emotions are critical in shaping employee's satisfaction at work. Our findings suggest that expressing felt emotions is essential at work where it leads to employee's satisfaction. Therefore, management must play an important role in managing employees' emotions at work. Several strategies can be implemented to make sure that good working culture and healthy work environment is maintained in ensuring positive emotions among the workers. Among these strategies are ensuring that suitable empowerment programme is operated, employees' benefits and well-being are taken care of at the utmost, suitable training is provided on continual basis, and implementing performance related rewards.

Another practical implication is that hotel managers must be concerned with the initiative of empowerment given to

the employees. As reported in the study, the freedom to perform dimension appear to be less significant in contributing to job satisfaction even though the disparity is marginal. It is significant that managers consider employing different forms of empowerment in order to maximize the potential in employees. Greater suggestion involvement and job involvement could be implemented in the organization (Lashley & McGoldrick, 1994) so that more allowance in task performance can be benefited while improving the 'culture of freedom to perform' by the employees. Besides the programme, managers also could apply empowerment zone (Berry, 1995; Rafiq & Ahmed, 1998) so that suitable empowerment strategy can be tailored to the right group of employees in an organization. For example, since freedom to perform dimension appears to be less important in bringing satisfaction at work, managers may channel the employees to green zone (safe zone) instead of amber (low risk) and red zone (high risk) so that employees are allowed and expected to make decision independently. This will encourage employees to have more freedom at work without worrying about the risks that they have to take. Having this said, hotel managers must consider re-structuring the empowerment strategy holistically and adopting suitable empowerment approach in order to maximize the benefit of empowerment. In general, right decision must be made by encompassing multifaceted and close integration of all aspects in empowerment antecedents such as managing

employee's emotions, suitable training, giving trust, creating suitable and right culture, knowledge distribution and many others. These antecedents should be treated as important ingredients in formulating suitable empowerment programme in the organization.

The findings provide a strong signal to the management of the hotel that the practice of empowerment at work is important in bringing satisfaction to the employees. Similarly, nurturing positive emotions among employees is imperative as it serves as an important strategy in improving employees' satisfaction. This means the management should give more attention in making sure that the empowerment practice takes its place in the organization and creates a suitable and healthy environment to foster positive emotions in order to enhance employee satisfaction as this situation has a very strong likelihood to bring high performance, which potentially contributes to the success of the organization.

LIMITATIONS AND FUTURE RESEARCH

Although this study has provided useful findings on the influence of empowerment, it has several limitations. One of the main limitations is that the current study is unable to provide evidence to suggest whether or not positive emotions mediate the relationship of empowerment with job satisfaction. Another limitation is associated with the generalization of the finding since the data is collected from one specific service industry. Hence, future studies should look into these

limitations by analyzing the data using advance statistical analysis such as structural equation modelling and replicate it in different service settings. A final limitation is based on the constructs used in the study. The current study chose empowerment as an individual construct to be examined. However based on AET conceptualisation, there were several features of work relevant to job satisfaction which may account for the whole relationship. The limitation is clear because other researchers may simply argue that a sound empirical test, which AET as a study background may want to consider other variables proposed. Thus, future research should consider adding other constructs so that the application of the AET theory can be more justified.

REFERENCES

- Arvey, R.D., Renz, G.L., & Watson, T.W. (1998). Emotionality and job performance: Implications for personnel selection *Research in Personnel and Human Resource Management*, 16, 103-147.
- Ashforth, B. E., & Humphrey, R.H. (1993). Emotional labour in service roles: The influence of identity. *Academy of Management Review*, 18, 88-115.
- Aziz, Y.A. (2007). Empowerment and emotional dissonance: Employee-Customer Relationships in the Malaysian Hotel Industry. Unpublished PhD Dissertation, the University of Nottingham.
- Bandura, A. (1986). *Social Foundation of Thought and Action: A Social Cognitive View*, Englewood Cliffs, NJ: Prentice Hall.
- Berry, L.L. (1995). *On Great Service*. The Free Press, New York, NY.
- Bowen, D. E., & Schneider, B. (1985). Boundary Spanning Role Employees and the Service Encounter: Some Guidelines for Management

- and Research. In M. R. S. John, A. Czepiel, and Carol F. S. (Eds.), *Service Encounter: Managing Employee/ Customer Interaction in Service Businesses* (pp. 127-147). Lexington, MA: Heath and Company.
- Brief, A. P., & Weiss, H.M. (2002). Organizational behaviour: Affect in the workplace. *Annual Review of Psychology*, 53, 279-307.
- Brymer, R.A. (1991). Employee empowerment: A guest driven leadership strategy. *The Cornell Hotel and Restaurant Administration Quarterly*, 32, 58-68.
- Chebat, J. C., & Kollias, P. (2000). The influence of empowerment on customer contact employees role in service organization. *Journal of Service Research*, 3(1), 66-81.
- Clutterbuck, D., & Kernaghan, S. (1994). *The power of empowerment: release the hidden talents of your employees*. London: Kogan Page.
- Conger, J. A., & Kanungo, R.N. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review*, 13, 471-482.
- Conger, J. A., & Kanungo, R. N. (1998). *Charismatic leadership in organizations*. Thousand Oaks, CA: Sage.
- Deci, E. L. (1975). *Intrinsic motivation*. New York: Plenum.
- Diefendorff, J. M., & Gosserand, R.H. (2003). Understanding the emotional labour process: A control theory perspectives. *Journal of Organizational Behaviour*, 24, 945-959.
- Diefendorff, J. M., & Richard, E.M. (2003). Antecedents and consequences of emotional display rules perceptions, *Journal of Applied Psychology*, 88(2), 284-294.
- Diefendorff, J.M., Croyle, M.H., & Gosserand, R.H. (2005). The dimensionality and antecedents of emotional labour strategies. *Journal of Vocational Behaviour*, 66, 339-357.
- Ekman, P. (1973). Cross-Culture Studies of Facial Expression. In P. Ekman (Ed.), *Facial Expression: A Century of Research in Review* (pp. 169-222). New York: Academic Press.
- Fisher, C.D., & Ashkanasy, N.M. (2000). The emerging of emotions in work life: An introduction. *Journal of Organisational Behaviour*, 21, 123-129.
- Foy, N. (1994), *Empowering People at Work*. London: Gower Publishing.
- Fulford, M.D., & Enz, C.A. (1995). The influence of empowerment on service employees. *Journal of Managerial Issues*, 7, 161-175.
- Gazzoli, G., Hancer, M., & Park, Y. (2010). The role and effect of job satisfaction and empowerment on customers' perception of service quality: A study in the restaurant industry. *Journal of Hospitality and Tourism Research*, 34, 56-77.
- Glomb, T. M., & Tew, M.J. (2004). Emotional labour: A conceptualization and scale development. *Journal of Vocational Behaviour*, 64, 1-23.
- Goodale, J.C., Koerner, M., & Roney, J. (1997). Analyzing the influence of service provider empowerment on perceptions of service quality inside an organization. *Journal of Quality Management*, 2, 191-215.
- Gosserand, R. H., & Diefendorff, J.M. (2005). Emotional display rules and emotional labour: The moderating role of commitment. *Journal of Applied Psychology*, 9, 1256-1264.
- Grandey, A. A. (2000). Emotion regulation in the workplace: A new way to conceptualize emotional labour. *Journal of Occupational Health Psychology*, 5, 95-100.
- Grandey, A., & Brauburger, A. (2002). The Emotion Regulation behind the Customer Service Smile. In K. a. R. K. R. Lord (Ed.), *Emotion in the Workplace: Understanding the Structure and Role of Emotions in Organisational Behaviour*. San Francisco, CA: Jossey-Bass.

- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60, 159-170.
- Hackman, J.R., & Oldham, G.R. (1976). Motivation through the design of work: Test of a theory. *Organisational Behaviour and Human Performance*, 16, 250-279.
- Hales, C., & Klidas, A. (1998). Empowerment in five-star Hotels: Choices, voice or rhetoric? *International Journal of Contemporary Hospitality Management*, 10, 88-95.
- Hancer, M., & George, R.T. (2003). Psychological empowerment of non-supervisory employees working in full-service restaurants. *International Journal of Hospitality Management*, 22, 3-16.
- Hardy, C., & Leiba-O'Sullivan, S. (1998). The power behind empowerment: Implications for research and practice. *Human Relations*, 51, 451-483.
- Hartline, M. D., & Ferrell, O.C. (1996). The management of customer-contact service employees: An empirical investigation. *Journal of Marketing*, 60, 52-70.
- Hochschild, A. R. (1983). *The Managed Heart: Commercialisation of Human Feeling*. Berkeley: University of California Press.
- Hocutt, M.A., & Stone, T.H. (1998). The influence of employee empowerment on the quality of a service recovery effort. *Journal of Quality Management*, 3, 117-132.
- James, N. (1989). Emotional labour: Skill and work in the social regulation of feelings. *Sociological Review*, 37, 15-42.
- Jenkins, D. (1996). *Managing Empowerment: How to Make Business Re-engineering Work*. London: Century Limited.
- Kanter, R. M. (1983). *The Change Masters*. New York: Simon & Schuster.
- Kazlauskaite, R., Buciniene, I., & Turauskas, L. (2006). Building employee commitment in the hospitality industry. *Baltic Journal of Management*, 1, 300-314.
- Kirkman, B.L., & Rosen, B. (1999). Beyond self management; the antecedents and consequences of team empowerment. *Academy of Management Journal*, 42, 58-74.
- Klidas, A., van den Berg, P.T., & Wilderom, C.P.M. (2001). Managing employee empowerment in luxury hotels in europe. *International Journal of Service Management Industry*, 18, 70-88.
- Koberg, C. S., Boss, R.W., Senjem, C., & Goodman, A. (1999). Antecedents and outcomes of empowerment. *Group and Organization Management*, 24, 71-91.
- Lashley, C., & McGoldrick, J. (1994). The limits of empowerment: A critical assessment of human resource strategy for hospitality operations. *Empowerment in Organizations*, 2, 25-38.
- Lashley, C. (2001). *Empowerment: HR Strategies for Service Excellence*. Butterworth: Heinemann.
- Lin, C.Y. (2002). Empowerment in the service industry: An empirical study in Taiwan. *The Journal of Psychology*, 136, 533-554.
- Locke, E. A. (1969). What is job satisfaction?. *Organisational Behaviour and Human Performance*, 4, 309-336.
- McDonald, T., & Siegall, M. (1993). The effects of technological self-efficacy and job focus on job performance, attitude, and withdraw behaviours. *Journal of Psychology*, 465-475.
- Melhem, Y, (2003). *Employee-Customer-Relationship: An Investigation into the Influence of Customer-Contact Employees' Capabilities on Customer Satisfaction in Jordan Banking Sector*. Unpublished PhD Dissertation, University of Nottingham.
- Mishra, A.K., & Spreitzer, G.M. (1998). Explaining how survivors respond to downsizing: the role of trust, empowerment, justice, and work redesign. *Academy of Management Review*, 23(3), 567-88.

- Moore, L.G., Hopkins, W.E., & Hopkins, S.A. (1998). Quality and empowerment programs: Dual paths to customer satisfaction. *Managing Service Quality*, 8, 133-141.
- Parsons, G. (1995). Empowering employees- Back to the future at Novotel. *Managing Service Quality*, 5, 16-21.
- Pelit, E., Ozturk, Y., & Arslanturk, Y. (2011). The effects of employee empowerment on job satisfaction: A study on hotels in Turkey, *International Journal of Contemporary Hospitality Management*, 23(6), 784-802.
- Quinn, R.E., & Spreitzer, G.M. (1997). The road to empowerment: seven questions every leader should consider, *Organizational Dynamics*, 26(2), 37-49.
- Rafaeli, A., & Sutton, R.I. (1987). Expression of Emotion as part of the Work Role. *Academy of Management Review*, 12, 23-37.
- Rafaeli, A., & Sutton, R.I. (1989). The expression of emotion in organisational life. In L. L. C. a. B. M. S. (Ed.), *Research in Organisational Behaviour* (pp. 1 - 42). Greenwich, CT: JAI Press.
- Rafaeli, A., & Sutton, R.I. (1991). Emotional contrast strategies as means of social influence: Lessons from criminal interrogators and bill collector. *Academy of Management Journal*, 34, 749-775.
- Rafiq, M., & Ahmed, P.K. (1998). A contingency model for empowering customer-contact services employees. *Management Decision*, 36, 686-693.
- Ro, H., & Chen, P.-J. (2011). Empowerment in hospitality organizations: Customer orientation and organizational support. *International Journal of Hospitality Management*, 30, 422-428.
- Schaubroeck, J., & Jones, J.R. (2000). Antecedents of workplace emotional labour: Dimensions and moderators of their effects on physical symptoms. *Journal of Organizational Behaviour*, 21, 163-183.
- Sharma, U., & Black, P. (2001). Look good, feel better: Beauty therapy as emotional labour, *Sociology*, 35, 913-931.
- Snipes, R.L., Oswald, S.L., LaTour, M., & Armenakis, A.A. (2005). The effects of specific job satisfaction facets on customer perceptions of service quality: An Employee-level Analysis. *Journal of Business Research*, 58, 1330-1339.
- Sparrowe, R.T. (1994). Empowerment in the hospitality industry: An exploration of antecedents and outcomes. *Hospitality Research Journal*, 17, 51-73.
- Spreitzer, G.M. (1992). *When organization dare: the dynamic of individual empowerment in the workplace*. Unpublished doctoral dissertation, University of Michigan, Ann Arbor.
- Spreitzer, G.M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38, 1442-1465.
- Spreitzer, G.M., Kizilos, M., & Nason, S. (1997). Dimensional analysis of the relationship between psychological empowerment effectiveness, satisfaction, and strain. *Journal of Management*, 23, 679-704.
- Thomas, K.W., & Velthouse, B.A. (1985). Cognitive elements of empowerment. *Academy of Management*. Los Angeles, CA.
- Ugboro, I. O., & Obeng, K. (2000). Top management leadership, employee empowerment, job satisfaction, and customer satisfaction in TQM organizations: An empirical study. *Journal of Quality Management*, 5, 247-272.
- Van Maanen, J., & Kunda, G. (1989). Real feelings: emotional expression and organisational culture. In L. L. C. a. B. Staw (Ed.), *Research in Organisational Behaviour* (pp. 43-104). Greenwich: CT: JAI.

- Watson, D., Clark, L.A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063-1070.
- Wegge, J., Dick, R.V., Fisher, G.K., West, M.A., & Jeremy F. Dawson, J.F. (2006). A test of basic assumptions of affective events theory (AET) in call centre work. *British Journal of Management*, 17, 237-254.
- Weiss, H.M., & Cropanzano, R. (1996). Affective Events Theory: A Theoretical Discussion of the Causes and Consequences of Affective Experiences at Work. In B.M. Staw and L.L. Cummings (Eds.), *Research in Organisational Behaviour* (pp. 1 -74). Greenwich, CT: Jai Press.
- Weiss, H.M, Nicholas, J.P., & Daus, C.S. (1999). An examination of the joint effects of affective experiences and job beliefs on job satisfaction and variations in affective experiences over time. *Organisational Behaviour Human Decision Process*, 78, 1-24.
- Wharton, A. S. (1993). The affective consequences of service work. *Work and Occupations*, 20, 205-232.
- Wharton, A.S., & Erickson, R.J. (1995). The consequences of caring: Exploring the links between women's job and family emotion work. *The Sociological Quarterly*, 36, 273-296.
- Zhang, X., & Bartol, K.M. (2010). Linking empowering leadership and employee creativity: the influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal*, 53(1), 107-128.



Relationship between Product Factors, Advertising, and Purchase Intention of Halal Cosmetic

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ABSTRACT

More customers are aware of Halal products, especially among Muslim customers living in multi-religious societies such as Malaysia. The trend is customers are also becoming more conscious about the permissibility (Halal) of a wide range of products ranging from food, financial and non-financial products, to tourism and health products. This apparently has prompted marketers operating in food, cosmetics, and pharmaceutical products to revise their strategies. The purpose of this paper is to investigate the relationships between five product factors; namely, brand, price, quality, ingredients and labelling and purchase intention of Halal cosmetic and toiletry products. The study also examined the role of advertising in the relationship between product factors and purchase intention. For this purpose, a structured questionnaire was designed based on items adapted from previous studies. Data were collected from 200 adult Muslim respondents using a convenience sampling method. Pearson Correlation and multiple regression analysis were used to test the proposed model. The results indicated that all product factors are significantly correlated with purchase intention. The results further indicate that advertising is a mediator for price-purchase intention relationship, but not a mediator to other product factors-purchase intention relationships. This study provides insights into how consumers behave in purchasing Halal products, given five product factors of brand, price, quality, ingredients and labelling. It is argued in this research that the presence of advertising may not change the intention to purchase Halal products but price may influence purchase intention.

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INTRODUCTION

The Halal industry has evolved from merely focusing on food to various other industries spanning a wider area of lifestyle, and driving demands in other non-food areas like consumer products such as cosmetics and toiletries, Islamic finances, and tourism (Hansee & Ramezane, 2011). Research by WHF shows that in 2010, the Halal Food Industry stood at USD641 billion and it is now estimated to worth USD661 billion. Overall, the combination of Halal food, pharmaceuticals, cosmetics and travel is estimated to worth over USD2.3 trillion. In addition, the Halal industries are growing at 15-20% annually (KasehDia Sdn. Bhd., 2011). Therefore, the Muslim consumer market is evidently a lucrative market with plenty of opportunities for market growth.

One of the promising areas in the Halal industry is the cosmetic market. It is estimated that the current size of the Halal cosmetic market ranges from US\$5-14 billion, with a growing number of consumers concerned with the Halal issues of the cosmetics they consume (Hunter, 2012; Ireland & Rajabzadeh, 2011). Halal generally refers to things or actions that are permissible under the Shariah (Islamic) law. In the scope of Halal cosmetics, the concept covers all aspects of production, including sourcing of Halal ingredients and usage of permissible substances - all must be manufactured, stored, packaged, and delivered in conformity with the Shariah requirements. Islam requires Muslims to adhere to its specific guidelines and principles for the consumption of goods and

services; thus, Muslim consumers have a high demand for Halal products that comply with the Islamic approach (Al-Khatib *et al.*, 1995; Rice, 1999). Consumable materials range from food, drinks, cosmetics, medicine, detergents, soaps, shampoo, and deodorants to antiperspirants for human beings, and feed for animals. In order for them to be considered religiously lawful and thus certified as Halal, the consumable products must fulfil the following requirements (Halal Industry Development Corporation, 2012): (1) do not contain any parts or products of non-Halal animals (animals which are not allowed to be eaten by Muslims), (2) do not contain any parts or products of Halal animals (such as cattle, goats, sheep, and poultry) that are not slaughtered according to Islamic law (Shariah), (3) do not contain any ingredients that are *Najis* (filthy or unclean) according to the Islamic law, (4) are safe and not harmful (do not contain physical, chemical, or biological/microbial hazards), (5) are not prepared, processed or manufactured using equipment that is contaminated with things that are regarded as *Najis* according to the Shariah, (6) ingredients that do not contain any human parts or their derivatives, (7) during its preparation, processing, packaging, storage or transportation, the products are physically separated from any other product that does not meet the requirements stated above or any other things that have been decreed as *Najis* by the Shariah. Jamal Abdul Nassir and Nur Shahira (2010) stated that Halal covers wide areas of consideration such as purchase intention, source of income (Regenstein,

Chaudry, & Regenstein, 2003), attitude towards advertisement, as well as attitude towards product and purchase intention (Maheswaran & Sternthal, 1990). The realm of Halal may extend to all consumables such as toiletries, pharmaceutical, cosmetics, and services including finance (Lada *et al.*, 2009). The fact of the matter is that Muslim consumers are very similar to any other consumer segments, demanding healthy and quality products, which must also conform to the Shariah requirements (Al-Harran & Low, 2008).

The study on Halal non-food can be categorized under product attributes (e.g., ingredients), and marketing (e.g., logo and labelling) (e.g., Rajagopal *et al.*, 2011; Swidi *et al.*, 2010). Meanwhile, the use of some typical ingredients such as gelatine, alcohol, placenta, lard, and collagen is ubiquitous within the mainstream cosmetics industry mainly due to their wide availability and in some cases, cost effectiveness (Kamaruzzaman, 2009; Murray, 2012). Simon (2007) stated that specific demand for Halal personal care products is being driven by increased consumers' knowledge of the ingredients used in the formulation of such products and the way they are produced. Halal cosmetics may contain animal-derived ingredients, but these have to be prepared according to the Islamic law, specifically in regards to the procedures applied for killing and preparing of the animals.

Other than the issue of ingredients, there is another issue regarding the Halal logo or labelling. Norhayati and Asmat Nizam (2010) stated that proper procedures need to

be taken in order for the goods or services to be awarded the Halal certification. Hence, the Halal logo or label cannot be taken lightly. In other words, the Halal label needs to be certified by a credible authority. In Malaysia, for example, JAKIM has the authority to grant the Halal certification for food and services through its logo or sticker (SIRIM, 2004). According to Al-Harran and Low (2008), the Halal label should not only be descriptive, but also be clear and meaningful to the consumers.

In line with the growing interest in the marketing of Halal products, this study was designed to provide insights into consumers' behaviour regarding Halal products. In more specific, the objectives of this study are:

1. To determine the relationship between product factors (brand, price, quality, ingredients and labelling) and purchase intention.
2. To examine the effects of advertising on the relationship between product factors and purchase intention.

Brand-purchase Intention Relationship

The relationship between brand and purchase intention has been investigated extensively. For example, Rajagopal (2006) acknowledged that brand associations influence the "evaluation of alternatives" stage in basic consumer buying behaviour models. Meanwhile, Woodside and Wilson (1985) found that a relationship exists between the level of brand awareness and the purchase decision, that is, the more easily the consumers recall the brand in an

unaided recall situation, the higher their purchase intention and the more likely the purchase of the brand. In similar vein, Keller (1993) found that consumers purchase only familiar, well-established brands because they do not always spend a great deal of time or cognitive effort in making purchase decisions and often try to minimize decision-making. Some previous research examining attitude showed that a brand significantly impacts intention to buy that particular brand (Brown & Stayman, 1992; Homer, 1990; MacKenzie *et al.*, 1986), and there is a significant positive relationship between brand attitude and intention to buy. Laroche *et al.* (1996) found that brand familiarity positively influenced shoppers' purchase intention while examining traditional retail stores. Akaah and Kargaonkar (1998) found that established manufacturer name greatly enhances the willingness to purchase packages by direct-marketing means. Thus, the following hypothesis is proposed:

H1a: Brand has significant influence on purchase intention of Halal products.

Price-purchase Intention Relationship

Price-purchase intention relationship has been studied over many years. Among other Karlsson *et al.* (2005) found that consumers were willing to make an effort to purchase online in order to obtain price savings. This may be balanced by the fact that the internet reduces search costs (time and effort) before purchase. Ehrenberg *et al.* (1997) noted that consumers have their individual price perceptions and will buy products that are priced within their portfolios of prices that

they are willing to pay for products (cited in Summers *et al.*, 2006). In a study by Helegeson and Beatty (1985), price was found to represent extrinsic cues, and it is also one of the most important kinds of information consumers use when making a purchase decision, and accounting for 40 per cent of their information search. Lichtenstein *et al.* (1993) elucidated that the price cue, however, is likely to be multidimensional, taking on a positive or negative role in consumers' decision making, that is, price itself facilitates or debilitates possibility of purchase. Thus, the following hypothesis is proposed:

H1b: Price has significant influence on purchase intention of Halal product.

Quality-purchase Intention Relationship

Hellier *et al.* (2003) found that customer-purchase intention studies highlighted the role of factors such as service quality, equity and value, customer satisfaction, past loyalty, expected switching cost and brand preference. Huddleston *et al.* (2001), Woodruff *et al.* (1998), and Mussey (1995) stated that consumers are buying products based on the price and quality, and to a lesser degree, on the country of origin. In general, when evaluating certain products, consumers use intrinsic cues such as style or material, as well as extrinsic cues such as price or brand, as indicators of quality. As the concept of Halal is related to the quality of product, the following hypothesis is proposed:

H1c: Quality has significant influence on purchase intention of Halal product.

Ingredients-purchase Intentions Relationship

Not many research studied ingredients-purchase intention relationship. Nevertheless, there are few that have highlighted ingredients and purchase intention in the research. For example, Johri and Sahasakmontri (1998) stated ingredient-purchase intention relationship in the context of skin/hair care product purchases, i.e. consumers with high health consciousness consider whether a product is safe for the skin and body; therefore, they may be more seriously concerned with the ingredients used to make the products than those with low health consciousness (cited in Hee & Jae, 2011). In another study, Todd (2004) states that consumption of personal care products is a purchasing behaviour that satisfies one's needs for beauty and care of one's general appearance. He also found that consumers' values and attitudes, environmental consciousness, and appearance consciousness are important in predicting consumers' attitudes toward organic personal care products. As of date, no known study has investigated the relationship between ingredients and purchase intention. Once again, because the concept of Halal covers every aspect of a product, it is assumed that the ingredients of a product are significantly related to purchase intention of Halal products. Thus, the following hypothesis is proposed:

H1d: Ingredients has significant influence on purchase intention of Halal product.

Labelling (Halal logo)-purchase Intention Relationship

Having a Halal logo or certificate in today's globalized world is a must in order to cater for all Muslim needs (Jamal Abdul Nassir & Nur Shahira, 2010). The Halal certification is the most important indicator of Halal in Malaysia because by having a Halal logo or certification means a product has been certified as *halal* by Malaysian certification bodies of Halal (e.g. JAKIM/JAIN/MAIN). Hence, it is assumed that labelling (Halal logo) is significantly related to the purchase intention of Halal products. Thus, the following hypothesis is proposed:

H1e: Labelling (Halal logo) has significant influence on purchase intention of Halal product.

Mediating the Role of Advertising

Park and Stoel (2005) found that prior exposure to advertising is one of the sources to retrieve knowledge from memory to gather internal information in handling uncertainties about the potential positive or negative consequences as the perceived risk of a purchase decision increases. For example, Brassington and Pettitt (2003), Erdogan and Baker (2000) and Redenbach (2000) concluded that brands are sensitive to the communication and anchors which catalyze consumer behaviour (as cited in Rajagopal, 2006). Furthermore, in terms of quality, Macdonald and Sharp (2003) found that consumers' perception of quality is sometimes based on the belief that "if he/she is familiar with the brand, the organisation must have spent heavily on advertising.

Economic signalling theory suggests that consumers may perceive repetition as a cue to the quality of an unfamiliar brand (Kirmani, 1997).

This study framed advertising as a mediator variable. This is due to the positive/negative role of advertising in affecting consumers purchase intention. Thus, the following hypotheses are proposed:

H2a: Advertising mediates the relationship between brand and purchase intention.

H2b: Advertising mediates the relationship between price and purchase intention.

H2c: Advertising mediates the relationship between quality and purchase intention.

H2d: Advertising mediates the relationship between ingredients and purchase intention.

H2e: Advertising mediates the relationship between labelling and purchase intention.

MATERIALS AND METHOD

This study consists of three variables; independent variables, mediator variable and dependent variable. Independent variables in this study refer to the five product factors; namely, brand, price, quality, ingredients and labelling. Mediator variable refers to advertising, while dependent variable refers to purchase intention of Halal products. A total of 200 respondents participated in this study. All the respondents are Malaysian Muslims who were surveyed via meeting

in person or in group and also via internet like e-mail and social networking. This study uses convenience sampling. The participants were given a questionnaire each to complete. The questionnaire is divided into two sections. Section A contains 32 items that measured Brand, Price, Quality, Ingredients, Labelling, Advertising and Purchase Intention. These items were measured using a Likert scale ranging from 1=strongly disagree, 2=disagree, 3=quite disagree, 4=neutral, 5=quite agree, 6=agree and 7=strongly agree. Section B assessed demographic characteristics of each respondent. It includes questions on the respective respondent's gender, age, status, highest education level, occupation and gross monthly income. The questions were adapted from Petrovici and Marinov (2007), Jamal Abdul Nassir and Nur Shahira (2010), Radder and Wei (2008), Ruparelia *et al.* (2010), and Hanzaee and Aghasibeig (2010).

RESULTS AND DISCUSSIONS

Product Factors-Purchase Intention Relationship

In order to examine the relationships between product factors (brand, price, quality, ingredients, labelling) and purchase intention, data were analyzed using Pearson Correlation Analysis. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. The results are shown in Table 1. As can be seen in Table 1, all the relationships were found to be significant with p-value below 0.01.

TABLE 1
Pearson correlation analysis on product factors-
purchase intention relationship

Product Factors	Purchase Intention
Brand	-.550**
Price	.272**
Quality	.390**
Ingredient	-.556**
Labelling	.479**

** Correlation is significant at 0.01 level

Brand-Purchase Intention Relationship

Based on Table 1, there is a strong but negative correlation between brand and purchase intention ($r = -.550$, $p < 0.01$). This significant relationship ($r = -.550$) shows that respondents were quite firm in prioritizing Halal over brand and not intending to purchase if the product is not Halal even though they have high regards for the brand.

Price-Purchase Intention Relationship

As for the relationship between price and purchase intention, the results showed that there is a small, positive correlation between price and purchase intention ($r = .272$, $p < 0.01$), with higher price associated with higher intent to purchase. This may indicate that consumers do not mind paying more as long as the product is Halal. However, since the correlation is rather small ($r = .272$), it can be concluded that consumers do not mind paying more but the price must be reasonable as well. In other words, if the price is too high, customers will not have the intention to purchase it even if the product is Halal.

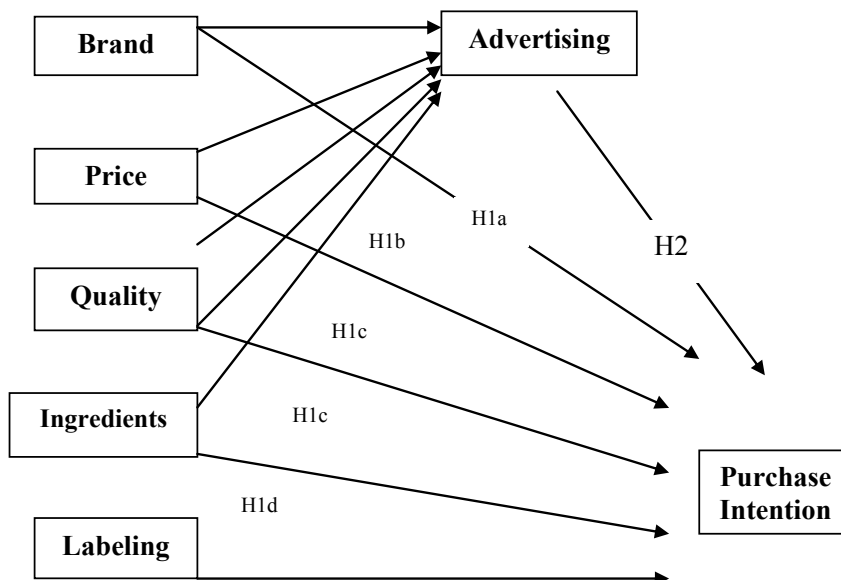


Fig.1. Research Framework

Quality-Purchase Intention Relationship

For the relationship between quality and purchase intention, there is a medium, positive correlation between quality and purchase intention ($r=.390$, $p<0.01$), whereby higher quality is associated with higher intent to purchase. This may indicate that even though price should play a role in purchase decision making, it cannot be denied that quality is always expected from every product bought by consumers. The medium relationship ($r=.390$) indicates that consumers look upon reasonable quality when they intend to buy Halal product.

Ingredients-Purchase Intention Relationship

There is a strong but negative correlation between ingredients and purchase intention ($r=-.556$, $p<0.01$), suggesting that higher concerns over ingredients are related with lower intent to purchase. The pattern of the results implies that consumers who are concerned with a product's ingredients will be less likely to purchase that product if they find the ingredients to be doubtful (which will become more obvious when the consumers are more concerned). This conclusion is strengthened by the fact that the correlation is significant ($r=-.556$).

Labelling (Halal logo)-Purchase Intention Relationship

Finally, there is a medium, positive correlation between labelling and purchase intention ($r=.479$, $p<0.01$), with higher confidence in labelling correlated with higher intent to purchase. The medium

correlation ($r=.479$) indicates that Halal logo or labelling is not mandatory to consumers when they intend to purchase cosmetics or toiletries products. Instead, it is seen as a convincing factor rather than a determinant for purchasing a product. It can be concluded that if consumers are confident that the product is Halal based on the Halal logo and if they feel that the Halal logo is genuine, they will have higher intention to buy it.

Mediating Role of Advertising

In order to determine whether advertising is a mediator or not, the causal approach by Baron and Kenny is used. Significance is determined when null hypothesis, coefficient equal to zero ($\beta=0$), is rejected so coefficient is not equal to zero ($\beta\neq 0$). Non significance is determined when the null hypothesis, coefficient equal to zero ($\beta=0$), failed to reject so the coefficient is equal to zero ($\beta=0$). Since the coefficient is significant at 0.05 level, the null hypothesis will be rejected if $p<0.05$, which means that it is different from zero ($\beta\neq 0$). In brief, if the coefficient for a path is significant, the p-value should be less than 0.05 and path coefficient is therefore different from zero (i.e. not zero). Table 2 summarizes the coefficient and p-value for total effect of the independent variable, X, on the dependent variable, Y (path *c*), the effect of the independent variable, X, on the mediator variable, M (path *a*), the effect of the mediator variable, M, on the dependent variable, Y (path *b*) and the direct effect of the independent variable, X, on the dependent variable, Y,

TABLE 2

Regression evaluating advertising as a possible mediator of the relationship between product factors and purchase intention of Halal cosmetics

Independent Variables	Relationship			
	Independent Variable on Purchase Intention (path c)	Purchase Intention on Advertising (path a)	Advertising on Independent Variable (path b)	Purchase Intention on Independent Variable through Advertising (path c')
	<i>t</i>	<i>t</i>	<i>t</i>	<i>t</i>
Brand	-2.546*	-0.403	0.227*	-2.455
Price	0.351*	0.444*	0.211*	0.257
Quality	0.353*	0.547*	0.121	0.287
Ingredients	-2.151*	0.181	0.281*	-2.201
Labelling	0.172*	0.177*	0.088	0.156

*Coefficient is significant at 0.05 level

through mediator variable, M (path c). In the causal approach by Baron and Kenny, variable M is considered a mediator if (1) X significantly predicts Y (i.e., $c \neq 0$), (2) X significantly predicts M (i.e., $a \neq 0$), and (3) M significantly predicts Y controlling for X (i.e., $b \neq 0$) (Preacher & Hayes, 2004). As shown in Table 2, advertising is **not** a mediator in brand-purchase intention relationship, quality-purchase intention relationship, ingredients-purchase intention relationship and labelling-purchase intention relationship because either path *a* or path *b* is not significant. However, advertising is a mediator only for price-purchase intention relationship because **all** paths are significant. Thus, H2a, H2c, H2d, and H2e are not supported and only H2b is supported.

In bootstrapping method, advertising is considered a mediator if zero is not within the lower and the upper level of confidence interval. As shown in Table 3, advertising is not a mediator in the brand-purchase intention relationship, quality-purchase

intention relationship, ingredients-purchase intention relationship and labelling-purchase intention relationship because the 95% confidence interval (CI) contains zero. It means that zero is within the interval. Thus, the null hypothesis failed to be rejected. Advertising only mediates the relationship between price and purchase intention because its 95% CI does not contain zero. In other words, it is different from zero, so the null hypothesis is rejected.

It can be observed that both the causal method by Baron and Kenny, and the bootstrapping method indicate the same result for the mediating role of advertising. The results of this study show that advertising only mediates the price-purchase intention relationship. This means that advertising influences the relationship between the two variables. Earlier in the findings, price is positively related with purchase intention, which means that the higher the price, the more a consumer has intention to buy the product because

TABLE 3

Bootstrapping method in evaluating advertising as a possible mediator of the relationship between product factors and purchase intention of Halal cosmetics

	95% Confidence Interval	
	Lower	Upper
Advertising on Brand-Purchase Intention	-.3494	.0787
Advertising on Price-Purchase Intention	.0361	.1928
Advertising on Quality-Purchase Intention	-.0099	.1505
Advertising on Ingredient-Purchase Intention	-.1565	.2781
Advertising on Labelling-Purchase Intention	-.0043	.0407

he does not mind paying more as long as it is *halal*. However, assuming that the consumer saw an advertisement about the price of the product, which is more than what he can afford, it is most likely that he will be influenced to change his earlier intention to buy the product after watching the advertisement.

The results indicate that Muslim consumers in Malaysia are still concerned with the Halal status of these products when purchasing them. Regardless of brand names, Muslim consumers will generally purchase products that are certified as *halal*. Hence, it is recommended that producers of cosmetics and personal care products apply for a halal certification for their products if they wish to increase their Muslim consumers' confidence in their products. Producers who have successfully acquired the *Halal* certification should clearly indicate it on their labels. In addition, the ingredients of a particular product should be specifically indicated on the labels for the convenience of consumers, who may not only be scrutinizing for religious purposes, but also for health reasons.

In addition, producers of cosmetics and personal care should also offer their *halal* certified products at competitive price rates. Based on the results of this study, Muslim consumers are still price sensitive even though they realize the importance of seeking *halal* certified products. In the market, there are numerous brands of cosmetics and personal care products which are halal certified. As such, Muslim consumers will still have the choices to switch products when they think it is necessary. Since the study has revealed the significant role of advertisement in the purchase intention of these *halal* products in terms of pricing, it is recommended that producers who put higher prices for their *halal* certified products to also indicate in the advertisement the added values or the advantages of their products, which will further justify the high monetary value that consumers will be exchanging for when purchasing the higher price products.

CONCLUSION

In light of the increased consumer attention and interest on halal products, this study

investigated the relationship between product factors and intention to purchase Halal cosmetic products. Five product factors were examined, namely, brand, price, quality, ingredients and labelling. There are significant and positive correlations between each product factor and intention to purchase Halal products, except for brand. In contrast to some previous studies which found a positive relationship between brand and purchase intention, our study found that brand and purchase intention of *halal* products have a negative relationship. This result indicates that customers who intend to purchase halal cosmetics will prioritize 'halalness' over brand. Hence, price that is correlated positively with the intention to purchase Halal products may indicate that consumers are willing to pay higher price for these Halal products. The positive correlation between quality and intention to purchase Halal products indicates that higher quality is associated with a higher intent to purchase. Consumers always look forward to buy quality Halal products. Thus, better quality will lead to a higher intent to purchase Halal products. On the contrary, the negative correlation between ingredients and purchase intention may indicate that if consumers have doubts about the Halalness of a product's ingredients, they may not purchase that product. The positive correlation between labelling and purchase intention indicates that as customers have higher confident in labelling of the halal products, they will have higher intention to purchase the Halal products. Consumers who can differentiate and are

confident about the genuineness of the Halal logo tend to have higher intent to purchase the products. This study also sheds some light on the role of advertising when consumer intends to buy Halal products after considering the product factors given earlier. It was concluded that advertising did not mediate all the product factors-purchase intention relationships except for the relationship between price and purchase intention.

REFERENCES

- Al-Harran, S., & Low, P. (2008). Marketing of halal products: the way forward. *Halal Journal*.
- Al-Khatib, J. A., Dobie, K., & Vitell, S. J. (1995). Consumer ethics in developing countries: an empirical investigation. *Journal of European Marketing*, 4, 87-109.
- Archibald, R. B., Haulman C. A., & Moody C. E., (1983). Quality, Price, Advertising and Published Quality Ratings. *Journal of Consumer Research*, 9, 347-356.
- Baldinger, A., & Robinson, J. (1996). Brand loyalty: the link between attitude and behaviour. *Journal of Advertising Research*, 36(6), 22-35.
- Baron, R. M., & Kenny, D. A. (1986). The mediator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Biehal, G., Stephens, D., & Curlo, E. (1992). Attitude toward the ad and brand choice. *Journal of Advertising*, 21(3), 19-36.
- Bollen, K. A., & Stine, R. (1990). Direct and indirect effects: Classical and bootstrap estimates of variability. *Sociological Methodology*, 20, 115-140.

- Boronico, J. S. (1999). Reliability-constrained pricing, capacity, and quality: an illustration of economic concepts to postal services. *Production and Operations Management*, 8(1), 92-107.
- Brown, S. P., & Stayman, D. M. (1992). Antecedents and consequences of attitude toward the ad: a meta-analysis. *Journal of Consumer Research*, 19(2), 34-51.
- Dawar, N., & Parker, P. (1994). Marketing universals: consumers' use of brand name, price, physical appearance, and retailer reputation as signals of product quality. *Journal of Marketing*, 58(2), 81-95.
- Feick, L. F., & Price, L. L. (1987). The market maven: a diffuser of marketplace information. *Journal of Marketing*, 51, 83-97.
- Grissom, R. J. (2000). Heterogeneity of variance in clinical data. *Journal of Consulting and Clinical Psychology*, 68, 155-165.
- Hair, J. F., Anderson, R. E., Tatham R. L., & Black, W. C. (1998). *Multivariate data analysis* (5th Ed). New Jersey: Prentice Hall Inc.
- Halal Industry Development. (2012). Retrieved March 24, 2012, from <http://www.hdcglobal.com>
- Hanzaee, K. H., & Aghasibeig, S. (2010). Iranian generation Y female market segmentation. *Journal of Islamic Marketing*, 1(2), 165-176. doi: 10.1108/17590831011055897
- Hanzae, K. H., & Ramezani, M. R. (2011). Intention to Halal Products in The World Markets. *Interdisciplinary Journal of Research in Business*, 1(5), 01-07.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408-420. Retrieved from <http://www.informaworld.com/smpp/content~db=all~content=a917285720~tab=citation>
- Hee, Y. K., & Jae, E. C. (2011). Consumer purchase intention for organic personal care products. *Journal of Consumer Marketing*, 28(1), 40-47. Doi: 10.1108/07363761111101930
- Helegeson, J. G., & Beatty, S. E. (1985). An information processing perspective on the internalization of the price stimuli. *Advances in Consumer Research*, 12, 91-106.
- Hellier, P. K., Geursen, G. M., & Carr, R. A. (2003). Customer repurchase intention: a general structural equation model. *European Journal of Marketing*, 37(1), 762-800.
- Hoaglin, D. C., Mosteller, F., & Tukey, J. W. (1983). *Understanding robust and exploratory data analysis*. New York: Wiley.
- Homer, P. M. (1990). The mediating role of attitude toward the ad: some additional evidence. *Journal of Marketing Research*, 27(2), 78-86.
- Howell, D. C. (2007). *Statistical methods for psychology* (6th ed.). Belmont, CA: Thomson Wadsworth.
- Huddleston, P., Good, L. K., & Stoel, L. (2001). Consumer ethnocentrism, product necessity and Polish consumers perception of quality. *International Journal of Retail & Distribution Management*, 29(5), 236-246.
- Hunter, M. (2012, March). The emerging Halal cosmetic and personal care market. *Personal Care*, p.
- Ireland, J., & Rajabzadeh, S. A. (2011). UAE consumer concerns about halal products. *Journal of Islamic Marketing*, 2(3), 274 – 283.
- Jamal Abdul Nassir Shaari., & Nur Shahira Mohd Arifin. (2010). Dimensions of halal purchase intention: a preliminary study. *International Review of Business Research Paper*, 6(4), 444-456.

- Judd, C. M., & Kenny, D. A. (1981). Process analysis: Estimating mediation in treatment evaluations. *Evaluation Review*, 5, 602-619.
- Karlsson, T., Kuttainen, C., Pitt, L., & Spyropoulou, S. (2005). Price as a variable in online consumer trade-offs. *Marketing Intelligence & Planning*, 23(4), 350-358. Doi: 10.1108/02634500510603456
- KasehDia Consulting. (2011). The 6th World Halal Forum, 4-5 April 2011, Post Event Report.
- Kaufman, J. S., MacLehose R. F., & Kaufman, S. (2004). A further critique of the analytic strategy of adjusting for covariates to identify biologic mediation. *Epidemiology Innovations and Perspectives*, 1(4).
- Keller, K. L. (1993). Conceptualizing, measuring and managing customer-based brand equity. *Journal of Marketing*, 57, 1-22.
- Kenny, D. A. (2009). *Mediation*. Retrieved from <http://www.davidakenny.net/cm/mediate.htm#ST>.
- Kirmani, A. (1997). Advertising repetition as a signal of quality: If it advertised so much, something must be wrong. *Journal of Advertising*, 26(3), 77-86.
- Kotler, P., & Armstrong, G. (2004). *Principles of Marketing*. Upper Saddle River, NJ: Pearson Prentice-Hall.
- Lada, S., Tanakinjal, G. H., & Hanudin Amin (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.
- Lapierre, J., Filiatrault, P. & Chebat, J.-C. (1999). Value strategy rather than quality strategy: a case of business-to-business professional services. *Journal of Business Research*, 45(2), 235-46.
- Laroche, M., & Sadokierski, R. W. (1994). Role of confidence in a multi-brand model of intentions for a high involvement service. *Journal of Business Research*, 29(1), 1-12.
- Laroche, N., Kim, C., & Zhou, L. (1996). Brand familiarity and confidence as determinants of purchase intention: an empirical test in a multiple brand context. *Journal of Business Research*, 37(10), 115-20.
- Lichtenstein, D. R., Ridgway, N. M., & Netemeyer, R. G. (1993). Price perceptions and consumer shopping behavior: a field study. *Journal of Marketing Research*, 30, 243-257.
- Lin, M. Y., & Chang, L. H. (2003). Determinants of habitual behavior for national and leading brands in China. *Journal of Product & Brand Management*, 12, 94-107.
- Macdonald, E., & Sharp, B. (2003, January). Management perceptions of the importance of brand awareness as an indication of advertising effectiveness. *Marketing Bulletin*, pp. 1-11.
- MacKenzie, S. B., Lutz, R. J., & Belch, G. E. (1986). The role of attitude toward the ad as a mediator of advertising effectiveness: a test of competing explanations. *Journal of Marketing Research*, 23(2), 130-43.
- MacKinnon, D. P. (2008). *Introduction to Statistical Mediation Analysis*. New York: Erlbaum.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7, 83-104.
- Marquardt, R. A., & McGann A. F. (1975). Does advertising communicate product quality to consumers? Some evidence from Consumer Reports. *Journal of Advertising*, 4, 27-31.

- Mason, R. S. (2007). Price and product quality assessment. *European Journal of Marketing*, 8(1), 29-41.
- Melati Mohd Ariff. (2010). *Consumers Need More Info on Halal issues*. Retrieved from <http://www.halaljournal.com/article/4254/consumers-need-more-info-on-halal-issues>.
- Nelson, P. (1974). Advertising as information. *Journal of Political Economy*, 82(4), 729-754.
- Norhayati Zakaria., & Asmat Nizam Abdul Talib (2010). Applying Islamic market-oriented cultural model to sensitize strategies towards global customers, competitors, and environment. *Journal of Islamic Marketing* 1(1), 51-62. Doi: 10.1108/175908310110 26222.
- Olson, J. C. (1977). Price as an informational cue: Effects in product evaluation. In A. G. Woodside, J. N., Sheth, & P. D. Bennet (Eds.), *Consumer and industrial buying behavior* (pp. 267-860). New York, NY: North Holland Publishing Company.
- Pallant, J. (2001). *SPSS survival manual*. Australia: Allen & Unwin.
- Park, J., & Stoel, L. (2005). Effect of brand familiarity, experience and information on online apparel purchase. *International Journal of Retail & Distribution Management*, 33(2), 148-160. Doi: 10.1108/09590550510581476.
- Pearl, J. (2000). *Causality: Models, Reasoning and Inference* (2nd ed.). (2009). Cambridge University Press.
- Pearl, J. (2001). Direct and indirect effects. *Proceedings of the Seventeenth Conference on Uncertainty in Artificial Intelligence*, Morgan Kaufmann, 411-420.
- Petrovici, D., & Marinov, M. (2007). Determinants and antecedents of general attitudes towards advertising. *European Journal of Marketing*, 41 (3/4), 307-326. Doi: 10.1108/03090560710728354.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717-731.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891.
- Radder, L., & Wei, H. (2008). High involvement and low involvement products a comparison of brand awareness among students at a South African University. *Journal of fashion Marketing and Management*, 12(2), 232-243. Doi: 10.1108/13612020810874908
- Rajagopal. (2006). Brand excellence: measuring the impact of advertising and brand personality on buying decisions. *Measuring Business Excellence*, 10(3), 56-65. Doi: 10.1108/13683040610685793
- Shambavi Rajagopal, Sitalakshmi Ramanan, Ramanan Visvanathan, & Subhadra Satapathy. (2011). Halal certification: implication for marketers in UAE. *Journal of Islamic Marketing*, 2(2), 138 – 153.
- Rice, G. (1999). The Islamic work ethics. *Journal of Business Ethics*, 18(4), 345-58.
- Robins, J. M., & Greenland, S. (1992). Identifiability and exchangeability for direct and indirect effects. *Epidemiology*, 3(2), 43-55.
- Ruparelia, N., White, L., Hughes, K. (2010). Drivers of brand trust in internet retailing. *Journal of Product & Brand Management* 19(4), 250-260. doi: 10.1108/10610421011059577
- Sebastianelli, R., & Nabil Tamimi (2002). How product quality dimensions relate to defining quality. *International Journal of Quality & Reliability Management*, 19(4), 442-453.
- Shimp, T. A. (2010). *Integrated marketing communication in advertising and promotion*.

- South Carolina: South-Western Cengage Learning.
- Simon, P. (2007). *Halal cosmetics spell big opportunities*. Retrieved from <http://www.cosmeticsdesign.com/Market-Trends/Halal-cosmetics-spell-big-opportunities>.
- Stone, C. A., & Sobel, M. E. (1990). The robustness of total indirect effects in covariance structure models estimated with maximum likelihood. *Psychometrika*, 55, 337-352.
- Summers T. A., Bellaeau, B. D., & Xu, Y. (2006). Predicting purchase intention of a controversial luxury apparel product. *Journal of Fashion Marketing and Management*, 10(4), 405-419. doi: 10.1108/13612020610701947
- Swidi, A, Wie, C. Hassan, M. G., Al Hosam, A., & Kassim, A.W.M. (2010). The mainstream cosmetics industry in Malaysia and the emergence, growth, and prospects of halal cosmetics. In *The Third International Conference on International Studies (ICIS 2010)*, 1-2 December 2010, 1-20. ISBN 9789832078456.
- Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics* (3rd ed.). New York: HarperCollins.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston: Allyn and Bacon.
- Tse, A. C. B. (2001). How much more are consumers willing to pay for a higher level of service? A preliminary survey. *Journal of Services Marketing*, 15(1), 11-17.
- Tukey, J. W. (1977). *Exploratory data analysis*. Reading, MA: Addison-Wesley.
- Weisberg, J., Te'eni, D., & Arman, L. (2011). Past purchase and intention to purchase in e-commerce. *Internet Research*, 21(1), 82-96. doi: 10.1108/10662241111104893.
- Williams, J., & MacKinnon, D. P. (2008). Resampling and distribution of the product methods for testing indirect effects in complex models. *Structural Equation Modeling*, 15, 23-51.
- Woodside, A. G., & Wilson, E. J. (1985). Effects of consumer awareness of brand advertising on preference. *Journal of Advertising Research*. 25, 41-8.
- Yoo, B., Donthu, N., & Lee, S. (2000). An examination of selected marketing mix elements and brand equity. *Journal of the Academy of Marketing Science*, 28, 197-213.

The Relationship between Job Insecurity, Shock, and Turnover Intention, amongst Survivors of Organizational Downsizing

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ABSTRACT

It is often thought that survivors of a downsized organization should be thankful for remaining in their jobs, and that they should respond positively by helping the organization to achieve its goals. However, these individuals often have the intention of leaving the organization. The purpose of this study is to examine the factors that influence the turnover intention of survivors of downsized organizations. We hypothesized that survivors were more likely to think about leaving their organization when they perceived insecurity in their jobs and considered the downsizing decision taken by top management as a “shock.” We tested this hypothesis on 187 surviving employees of downsized organizations in Malaysia. The important findings of this study are that the survivors’ turnover intention is significantly related to shock, job insecurity, and organizational level. Hence, organization leaders need to plan carefully before implementing their organization’s downsizing, as shocks do influence survivors’ turnover intention.

Keywords: Job insecurity, turnover intention, organizational downsizing

INTRODUCTION

Downsizing is a purposeful reduction in the size of an organization’s workforce (Budros, 1999). Over the years, organizational

downsizing has received extensive interest from businesses, scholars, managers, and media. In fact, it has become a widely-used approach by companies attempting to reduce costs (Cascio, 1993) and to increase effectiveness, efficiency, productivity, and competitiveness (Cameron, 1994). However, empirical studies have found that an organization’s performance is likely

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to suffer rather than improve following a downsizing (Datta, Guthries, Basuil, & Pandey, 2010). Various researchers have attributed this to the negative implications of downsizing on the organization's survivors. These survivors experience what is termed as "survivor syndrome," which is the feelings of anger, fear, distrust, and guilt (Devine, Reay, Stainton, & Collins-Nakai, 2003). As a result, survivors experience higher levels of stress, lower levels of job satisfaction, higher absenteeism, greater psychological burnout, and poorer psychological well-being (Burke, 2003; Devine *et al.*, 2003). While there have been many studies on the effects of downsizing on the employees' attitudes or organizational performance, little attention has been paid to the effects of downsizing on survivors' turnover intention (see Spreitzer & Mishra, 2002; Trevor & Nyberg, 2008). The purpose of this study is to add to previous literature by examining the factors influencing the turnover intention of survivors, following an organizational downsizing. For this purpose, we examined two of the variables often associated with downsizing, namely, job insecurity and shock, on employees (or "survivors") from organizations that have engaged in downsizing.

Over the past two decades, a considerable amount of literature has been published on downsizing and several attempts have also been made to present an overview of the consequences of downsizing (Gandolfi, 2008; Ryan & Macky, 1998). A review of empirical literature reveals that the majority of studies have been limited to examining the

direct effects (Datta *et al.*, 2010). However, there has been very little discussion on the effects of downsizing on employees' critical behaviours such as voluntary turnover that probably accompanies these attitudes (Trevor & Nyberg, 2008). Much empirical research conducted on downsizing at an individual level has examined the roles of trust and justice (see Brennan & Skarlicki, 2004; Chang, 2002; Keman & Hanges, 2002; Spreitzer & Mishra, 2002; Wiesenfeld, Brockner, & Thibault, 2000). However, these studies have ignored the role of employees' perception of job insecurity in predicting survivors' turnover intention, as a reaction to downsizing. Hence, there is a need to move beyond studying the direct effects of downsizing and these theories in order to better understand the issue of survivors' reactions to downsizing. Therefore, this study seeks to contribute to existing downsizing research by studying the effects of job insecurity on surviving employees' turnover intention.

This is an important understanding for leaders of a downsized organization because survivors are usually the brightest employees who are retained and relied upon by these leaders to move the organization forward (Levitt *et al.*, 2008). Moreover, high rates of survivor turnover can be costly for organizations that have downsized, and can lead to post-downsizing decreases in the productivity and performance of the organization (Brennan & Skarlicki, 2004). More importantly, prior research has suggested that these high-potential employees have many alternative job

opportunities and may be most tempted to leave for a more stable work environment, following a downsizing (Mishra, Spreitzer, & Mishra, 1998). By understanding the attitudes and viewpoints of these survivors, organizational leaders can develop clear strategies to retain these survivors. Therefore, this study can be helpful to organizational leaders, particularly in implementing a downsizing plan, learning about the possible human resource issues that will probably result from downsizing and appropriately implementing downsizing activities.

RESEARCH HYPOTHESES

Two major theories, the Unfolding Model of Turnover (Lee & Mitchell, 1994) and the theory of job insecurity by Greenhalgh and Rosenblatt (1984), provide the foundation of this study's research framework. The Unfolding Model of Turnover by Lee and Mitchell (1994) is considered to be one of the most promising new theories for understanding and describing how and why people leave organizations (Griffeth *et al.*, 2000). According to this model, people compare shocks and their surrounding circumstances to their own images (that is, their values, goals, and plans for goal attainment), and if the two are incompatible, thoughts of leaving will occur (Lee *et al.*, 1999). A person who has experienced a shock can leave an organization without considering his or her current attachment to the organization (Lee & Mitchell, 1994). Lee *et al.* (1999) define a shock as being a particular jarring event, which initiates the

psychological analyses involved in quitting a job, which can be positive, neutral, or negative; expected or unexpected; and internal or external, to the person who experiences it. Some examples of shock are unsolicited job offers, changes in marital status, transfers, and firm mergers (Lee *et al.*, 1999).

The theory of job insecurity, by Greenhalgh and Rosenblatt (1984) states that when an organization engages in downsizing, employees will find it threatening because some degree of job insecurity has been experienced (Greenhalgh & Rosenblatt, 1984). However, job insecurity only occurs in cases of involuntary loss (Greenhalgh & Rosenblatt, 1984). In cases of voluntary turnover, even whilst an individual gives up valued job features and experiences job loss, this individual will not be powerless to maintain continuity, and therefore, will not experience job insecurity (Greenhalgh & Rosenblatt, 1984). However, when organizations downsize, employees experience job insecurity because the event affects the continuity of the employees' current job and they are powerless to maintain their status in a job (Greenhalgh & Rosenblatt, 1984).

In this study, it is posited that job insecurity and shock experienced by employees following a downsizing influence their turnover intention. The research framework is shown in Fig.1.

Greenhalgh and Rosenblatt (1984) define job insecurity as the "perceived powerlessness to maintain the desired continuity in a threatened job situation"

(p. 438). Research on stress (e.g., Levitt *et al.*, 2008) shows how the psychological anticipation of a stressful situation (in this case, the risk of losing one's job) is a more intense source of anxiety than the event itself (Lazarus & Folkman, 1984). In line with this, job insecurity may have negative consequences for the individual as an actual job loss (Latack & Dozier, 1986). Job insecurity has been defined as a major work-related stressor because a decline in job insecurity represents increased uncertainty regarding the continuation of one's job as it currently exists (Sverke *et al.*, 2002). Hence, when an individual perceives job insecurity, he induces various coping strategies and behavioural withdrawal (Lazarus & Folkman, 1984) such as quitting the job (Latack, 1986). In this case, the individual will avoid the stress caused by job insecurity by leaving the situation. Hence, employees may begin to think about quitting an organization as job insecurity increases during organizational downsizing (Ashford *et al.*, 1989). Thus, the first hypothesis is:

H1: There is a positive relationship between job insecurity experienced by survivors during downsizing and turnover intention.

Shock refers to “an event that jars employees towards deliberate judgments about their jobs” (Lee & Mitchell, 1994, p. 60). In this study, we examined the effects of one specific kind of shock, i.e., organizational downsizing. According to the Unfolding Model of Voluntary Employee Turnover, an employee may think about quitting when he/she faces a shocking event (Lee *et al.*, 1996). The experience that survivors have during organizational downsizing shapes their willingness to remain in the organization (Lee *et al.*, 1996). Based on the Unfolding Model proposed by Lee *et al.* (1996), we posited that the employees would have the intention of leaving the organization if the downsizing was considered by them as a “shock” (i.e., a jarring event) (Holtom *et al.*, 2005). We argue that downsizing can be considered

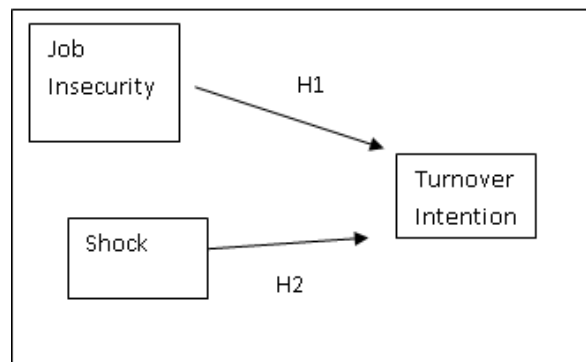


Fig.1: Research framework

as a “shock” because Lee and Mitchell’s (1994) definition of it refers to a “very distinguishable event that jars employees towards deliberate judgments about their jobs; and perhaps, to voluntarily quit their job” (p. 60). A shock will cause the survivors of an organizational downsizing to re-evaluate their current work conditions, consider job alternatives, and then leave the organization, and will usually take another job offer or pursue a likely offer (Trevor & Nyberg, 2008). Hence, we postulated that:

H2: There is a positive relationship between the shock experienced by survivors during downsizing and turnover intention

Hypotheses H1 and H2 constitute the main research questions of this study. However, this study also examined the influence of the survivor’s gender and organizational level on their turnover intention.

METHODOLOGY

Participants and Data Collection

A list of companies that were involved in employee retrenchment from January to May 2009 was obtained from the Retrenchment Management unit of the Ministry of Human Resources, and was utilized to select the study sample. Organizations located in Selangor, Penang, and Johor were chosen for the study because the retrenchment statistics provided by the Ministry of Human Resources showed that these three states had the highest number of retrenchment cases in Malaysia in 2009 (Ministry of Human

Resources Malaysia, 2009). Judgmental sampling was utilized during the first phase of sampling, in which the researcher chose the companies that had retrenched 10 or more local employees from the list obtained, regardless of the size of the downsized organization. A total of 130 companies were chosen using this type of sampling. Five managerial employees and 10 non-managerial employees were targeted from each selected company. As a result, questionnaires were sent to a total of 1,950 surviving employees in the organizations identified. Meanwhile, human resource managers or company executives from the chosen companies were contacted by the first researcher to assist in the distribution of the questionnaires. The managers were requested to distribute the questionnaires to 15 surviving employees in their respective organizations.

A total of 187 useable questionnaires were returned, yielding a response rate of 9.6%. This response rate is, according to McDonald and Kan (1997), within the range of response rates for studies previously conducted in Malaysia, which were between 7.6 and 27.4%. Since the response rate was less than 30%, we checked for non-response bias (Armstrong & Overton, 1977), but found no indication of such bias in this study.

Measures

The questionnaire was in both English and Bahasa Melayu. English was used because it is one of the main languages used in Malaysia, especially in the private sector.

Meanwhile, a Bahasa Melayu version was also deemed to be more appropriate for lower level employees (i.e., non-managerial). The items in the questionnaire were adapted from previous studies.

Job insecurity was measured using four items from Caplan, Cobb, French, Van Harrison, and Pinneau (1975, as cited in Lim, 1996). Responses to these four items were based on a 5-point Likert scale, ranging from 1 (extremely uncertain) to 5 (extremely certain). Examples of the items used to measure job insecurity included, “How certain are you, of the opportunities for promotion and advancement, which will exist in the next few years, with this organization?”, “How certain are you, about what your future career picture looks like, with this organization?”, and “How certain are you, about what your responsibilities will be six months from now?” The reliability of this scale, measured using Cronbach’s alpha, was 0.861.

Three questions that were adapted from Morrell, Loan-Clarke, and Wilkinson (2004) were used to measure shock, whereby the respondents were asked to indicate the extent to which the downsizing event was either expected or a shock to them, using a scale ranging from 1 (strongly agree) to 5 (strongly disagree). For instance, one of the questions from Morrell *et al.* (2004) was “to what extent was the event expected or unexpected?” The Cronbach’s alpha score of reliability for the items used to measure shock was 0.609.

Turnover intention was measured using three items that were adapted from Hom,

Griffeth, and Sellaro (1984). The three items were: 1) “*I intend to leave this organization within the next 12 months*”; 2) “*I feel strongly about leaving this organization within the next 12 months*”, and 3) “*I will leave this organization within the next 12 months.*” The respondents were required to answer the three questions using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The reliability obtained using Cronbach’s alpha was 0.960.

Questions to determine the respondents’ pertinent demographic information (such as age, gender, ethnicity, highest academic qualification, position in the organization, and industry of the organization) were also included in the questionnaire.

RESULTS AND DISCUSSION

Profile of the Respondents

The characteristics of 187 respondents are given in Table 1.

TABLE 1
Profile of the respondents

	<i>N</i>	<i>(%)</i>
<i>Age</i>		
Below 25	27	14
26-35	80	43
36-45	59	32
45 and above	21	11
<i>Gender</i>		
Male	64	34
Female	123	66
<i>Education Level</i>		
Primary School Certificate	1	1
Secondary School Certificate	41	22
Diploma/Technical School Certificate	68	36

TABLE 1 (continue)

Bachelor's Degree	65	35
Master's Degree or higher	12	6
Race		
Malay	77	41
Chinese	91	49
Indian	15	8
Other	4	2
Position in Organization		
Non-manager	57	30
First-line Supervisor	50	27
Middle Management	62	33
Top Management	16	9
Other	1	1

RESULTS AND DISCUSSION

A simple multiple regression analysis was conducted to test the hypotheses. Table 2 shows that the turnover intention model was statistically significant, with $p < 0.01$ and $F = 16.95$. The model revealed an R^2 of 0.16.

TABLE 2
Results of the multiple regression analysis for turnover intention

Independent Variables	Dependent Variable = Turnover Intention
Job Insecurity	0.25*
Shock	0.27*
R^2	0.16
F-Change	16.95*

Note: Standardized regression coefficients are provided

* $p < 0.01$

Job Insecurity and Turnover Intention

Hypothesis 1 proposes that job insecurity positively influences surviving employees' turnover intention. As can be seen in Table 2, job insecurity was found to significantly

influence the turnover intention of surviving employees ($\beta = 0.25$ and $p < 0.01$). The relationship was positive, indicating that the higher the surviving employees' level of job insecurity, the higher their intention would be to leave their current organization following organizational downsizing. Hence, Hypothesis 1 is supported.

Based on the results, the job insecurity experienced by the surviving employees following an organizational downsizing prompts them into thinking about leaving the organization. This finding is consistent with that of Ashford *et al.* (1989) and Leung and Chang (2002). By referring to Lazarus and Folkman's (1984) coping and stress model, job insecurity induces various coping strategies, with behavioural withdrawal being one of them. The perceived powerlessness to maintain a desired continuity experienced by the surviving employees, and their concern over the loss of desirable job featured in a threatened job situation (i.e., the possibility of being retrenched in the future) probably prompts them to have the intention of quitting the organization since job insecurity increases during organizational downsizing (Greenhalgh & Rosenblatt, 1984; Ashford *et al.*, 1989; Leung & Chang, 2002).

Shock and Turnover Intention

Hypothesis 2 proposes that there is a positive relationship between the shock experienced by the surviving employees during downsizing and their turnover intention. The results revealed that shock contributed to 27% ($p < 0.01$) of the variance

(see Table 2). The stronger the shock experienced by these surviving employees during organizational downsizing, the stronger their intention to leave their current organization would be following an organizational downsizing. Therefore, H2 is supported. The finding of a significant positive correlation between the shock experienced by the survivors and their turnover intention indicates that they have a high propensity to leave an organization following the organizational downsizing. These results conform generally to the Unfolding Model of Turnover by Lee and Mitchell (1994), in which shock is a jarring event that prompts employees to think about leaving their jobs (Lee & Mitchell, 1994).

Gender, Organizational Level, and Turnover Intention

In terms of gender influence on turnover intention, an independent sample t-test was conducted to determine the turnover intention scores for both males and females. Nonetheless, there was no significant difference at $p < 0.05$ level in the turnover intention for the males (mean = 2.987, SD = 1.376) and the females (mean = 2.810, SD = 1.186) (refer to Table 3). The findings of the current study are consistent with those of Ryan, Ghazali, and Mohsin (2011), who found no differences between genders in their intentions to quit.

A one-way between group Analysis of Variance (ANOVA) was conducted to explore the impacts of an individual's organizational level on turnover intention. The respondents were divided into five

categories (i.e., non-managers, first-line supervisors, middle management, top management, and others). There were statistically significant differences at $p < 0.05$ level in the turnover intention for the five groups ($F = 4.096$, $p = 0.003$) (refer to Table 4). Non-managers (mean = 3.228, SD = 1.177) had the highest turnover intention of all survivor groups, and this is possibly because they feel the brunt of an organizational downsize, and may perceive themselves as being less qualified than the managerial employees. As such, employees from the non-management level tended to feel a higher threat of job loss and would cope with such job insecurity by looking for more secure employment elsewhere.

IMPLICATIONS

Organizations can utilize the findings of this study to design specific interventions aimed at reducing the voluntary turnover of surviving employees following an organizational downsizing. The results from this study suggest that survivors' turnover intentions are positively related to job insecurity and shock. Downsizing can lead to increased turnover intention amongst survivors since it can be perceived as a shocking event, and one that leads to increased job insecurity. Hence, organizational leaders need to plan carefully before implementing their organization's downsizing. Since shocks do matter in influencing a survivor's turnover intention, organizations could benefit from better preparing their employees for events that are potentially perceived as shocks; in this case, downsizing. In an effort to reduce

the shock resulting from downsizing for the surviving employees, management should use both formal and informal communication channels before, during, and even after the downsizing event has taken place to assure their valued employees of what their places will be within the downsized organization (Mone, 1994). Such communication needs to be clear, honest, and frequent. By keeping their employees well-informed, organizations not only reduce the feelings of shock experienced by the employees, but also lower any uncertainty or associated fear; thus, also decreasing the level of job insecurity, which is another factor shown in this study to result in increased turnover intention. In addition, downsized organizations can also foster job security amongst their survivors by sharing with them the career development plans that the organization has in store.

It is thought that female survivors find downsizing more stressful than their male counterparts (Armstrong-Stassen, 1998) and are more likely to leave an organization following downsizing. However, this study was unable to demonstrate that gender does play an important role in predicting an individual's turnover intention. Overall, the male and female survivors did not differ in terms of their perceived turnover intentions. Hence, the results of this study seem to indicate that an individual's intention to leave an organization is a response to other factors such as procedural injustices or job dissatisfaction, and not on the basis of gender.

In terms of organizational level, the results of this study have shown that non-management employees have a significantly higher turnover intention than management-level employees. These findings have implications for the types of intervention programmes to be designed to assist remaining employees in dealing with organizational downsizing. The needs of various groups of survivors within an organization differ depending on their organizational levels. Hence, when the management of a downsized organization develops strategies to retain surviving employees, such as revisions in employee training and development, compensation, incentive systems, and work place redesign, following organizational downsizing (Mone, 1994), they have to customize these programmes to meet the needs of these specific groups of survivors. Generic intervention programmes targeted at all employees will be less successful in reducing the turnover intention of employees.

LIMITATIONS AND DIRECTION FOR FUTURE RESEARCH

This research has limitations, of which we have identified three. First, data were obtained from a self-administered questionnaire, and as such, raised possible common method variance issues. The respondents might have a tendency to respond in a consistent manner. Therefore, future researchers could use a longitudinal design to examine the impacts of downsizing on turnover intention. Researchers could

TABLE 3
Independent t-Test Results for Gender and Turnover Intention

		Gender	N	Mean	Std. Deviation	Std. Error Mean
Turnover Intention	1 Male		64	2.9870	1.37639	.17205
	2 Female		123	2.8103	1.18589	.10693

Independent Samples t-Test		Levene's Test for Equality of Variances		t-test for Equality of Means			95% Confidence Interval of the Difference			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Turnover Intention	Equal variances assumed	2.120	.147	.914	185	.362	.17668	.19328	-.20463	.55799
	Equal variances not assumed			.872	112.408	.385	.17668	.20257	-.22467	.57803

Table 4
ANOVA Results

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
1	Non-manager	57	3.2281	1.17709	.15591	2.9157	3.5404
2	First-line Supervisor	50	2.9000	1.09057	.15423	2.5901	3.2099
3	Middle Management	62	2.7930	1.32809	.16867	2.4557	3.1303
4	Top Management	17	1.9608	1.24098	.30098	1.3227	2.5988
5	Others	1	1.3333
Total		187	2.8708	1.25346	.09166	2.6899	3.0516

ANOVA					
Organizational Level and Turnover Intention					
		Sum of Squares	df	Mean Square	Sig.
Between Groups		24.135	4	6.034	.003
Within Groups		268.103	182	1.473	
Total		292.238	186		

also use a mixed method approach to provide a deeper understanding of the results obtained.

Second, since we adapted the measures for shock from Morrell *et al.* (2004) and reworded some of their items, it could have somewhat affected their reliability. Although the reliability of shock, using Cronbach's alpha, was 0.60 and considered acceptable (Nunnally, 1978), a higher level of reliability would have been preferred. Therefore, further development and validation of the measures used for shock would be beneficial.

Third, although we strived to include a wide variety of industries as the study's sample, the majority of our respondents were from the manufacturing industry. Therefore, it may not be appropriate to generalize the findings. Hence, future researchers need to include a wider variety of industries so as to provide a more comprehensive view of how job insecurity and shock affect turnover intention.

CONCLUSION

Whilst many organizations use downsizing in the hope of improving their organization's effectiveness, efficiency, and productivity, the opposite may actually happen. Failure to manage survivors following a downsizing exercise has been cited as one of the primary reasons for this. We hope that this study has provided academics and organizational leaders with the knowledge to help them understand the causes of turnover intention amongst survivors of downsized organizations.

REFERENCES

- Armstrong, J. S., & Overton, T. S. (1977). Estimating non response bias in mail surveys. *Journal of Marketing Research*, 14, 396-402.
- Armstrong-Stassen, M. (1998). The effects of gender and organizational level on how survivors appraise and cope with organizational downsizing. *Journal of Applied Behavioural Science*, 34(2), 125-142.
- Ashford, S. J., Lee, C., & Bobko, P. (1989). Content, causes, and consequences of job insecurity: A theory-based measure and substantive test. *Academy of Management Journal*, 32(4), 803-829.
- Brennan, A., & Skarlicki, D. P. (2004). Personality and perceived justice as predictors of survivors' reactions following downsizing. *Journal of Applied Social Psychology*, 34(6), 1306-1326.
- Budros, A. (1999). A conceptual framework for analyzing why organizations downsize. *Organization Science*, 10(1), 69-82.
- Burke, R. J. (2003). Survivors and victims of hospital restructuring and downsizing: Who are real victims? *International Journal of Nursing Studies*, 40(8), 903-909.
- Cameron, K. S. (1994). Strategies for successful organizational downsizing. *Human Resource Management*, 33(2), 189-211.
- Cascio, W. F. (1993). Downsizing: What do we know? What have we learned? *Academy of Management Executive*, 7(1), 95-104.
- Chang, E. (2002). Distributive justice and organizational commitment revisited: Moderation by layoff in the case of Korean employees. *Human Resource Management*, 41(2), 261-270.
- Datta, D. K., Guthrie, J. P., Basuil, D., & Pandey, A. (2010). Causes and effects of employee downsizing: A review and synthesis. *Journal of Management*, 36(1), 281-348.

- Devine, K., Reay, T., Stainton, L., & Collins-Nakai, R. (2003). Downsizing outcomes: Better a victim than a survivor? *Human Resource Management*, 42(2), 109-124.
- Gandolfi, F. (2008). Learning from the past: Downsizing lessons for managers. *Journal of Management Research*, 8(1), 3-17.
- Greenhalgh, L., & Rosenblatt, Z. (1984). Job insecurity: Toward conceptual clarity. *Academy of Management Review*, 9(3), 438-448.
- Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26(3), 463-488.
- Holtom, B. C., & Inderrieden, E. J. (2006). Integrating the unfolding model and job embeddedness model to better understand voluntary turnover. *Journal of Managerial Issues*, 18(4), 435-452.
- Holtom, B. C., & O'Neill, B. S. (2004). Job embeddedness: A theoretical foundation for developing a comprehensive nurse retention plan. *The Journal of Nursing Administration*, 34(5), 216-227.
- Holtom, B. C., Mitchell, T. R., Lee, T. W., & Inderrieden, E. J. (2005). Shocks as causes of turnover: What they are and how organizations can manage them. *Human Resource Management*, 44(3), 337-352.
- Hom, P. W., Griffeth, R. W., & Sellaro, C. L. (1984). The validity of Mobley's 1977 model of employee turnover. *Organizational Behaviour and Human Performance*, 34(2), 141-174.
- Keman, M. C., & Hanges, P. J. (2002). Survivor reactions to reorganization: Antecedents and consequences of procedural justice, interpersonal, and informational justice. *Journal of Applied Psychology*, 87(5), 916-928.
- Latack, J. C. (1986). Coping with job stress: Measures and future directions for scale development. *Journal of Applied Psychology*, 71(3), 377-385.
- Latack, J. C., & Dozier, J. B. (1986). After the axe falls: Job loss as a career transition. *Academy of Management Review*, 11(2), 375-392.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Lee, T. W., Mitchell, T. R., Holtom, B. C., McDaniel, L. S., & Hill, J. W. (1999). The unfolding model of voluntary turnover: A replication and extension. *Academy of Management Journal*, 42(2), 450-462.
- Lee, T. W., & Mitchell, T. R. (1994). An alternative approach: The unfolding model of voluntary employee turnover. *Academy of Management Review*, 19(1), 51-89.
- Lee, T. W., Mitchell, T. R., Wise, L., & Fireman, S. (1996). An unfolding model of voluntary employee turnover. *Academy of Management Journal*, 39(1), 5-36.
- Leung, A. S. M., & Chang, L. M. K. (2002). Organizational downsizing: Psychological impact on surviving managers in Hong Kong. *Asia Pacific Business Review*, 8(3), 76-94.
- Levitt, K., Wilson, T., & Gilligan, E. (2008). Corporate downsizing: An examination of the survivors. *Journal of Global Business Issues*, 2(2), 13-21.
- Lim, V. K. G. (1996). Job insecurity and its outcomes: Moderating effects of work-based and non-work based social support. *Human Relations*, 49(2), 171-194.
- McDonald, G. & Kan, P.C. (1997) Ethical perceptions of expatriate and local Managers in Hong Kong. *Journal of Business Ethics*, 16(15), 1605-1603.
- Ministry of Human Resources Malaysia. (2009). *Retrenchment*. Retrieved 2 February, 2010 from <http://www.mohr.gov.my/>

- Mishra, A. K., Spreitzer, G. M., & Mishra, A. K. (1998). Preserving employee morale during downsizing. *Sloan Management Review*, 39(2), 83-95.
- Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablinski, C. J., & Erez, M. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, 44(6), 1102-1121.
- Mone, M. A. (1994). Relationships between self-concepts, aspirations, emotional responses, and intent to leave a downsizing organization. *Human Resource Management*, 33(2), 281-298.
- Morrell, K., Loan-Clarke, J., & Wilkinson, A. (2004). The role of shock in employee turnover. *British Journal of Management*, 15(4), 335-349.
- Nunnally, J.C. (1978). *Psychometric Theory* (Vol. 2). New York: McGraw-Hill.
- Ryan, C., Ghazali, H., & Mohsin, A. (2011). Determinants of intention to leave a non-managerial job in the fast-food industry of West Malaysia. *International Journal of Contemporary Hospitality Management*, 23(3), 344-360.
- Ryan, L., & Macky, K. A. (1998). Downsizing organizations: Uses, outcomes and strategies. *Asia Pacific Journal of Human Resources*, 36(2), 29-45.
- Steel, R. P., & Griffeth, R. W. (1989). The elusive relationships between perceived employment opportunity and turnover behaviour: A methodological or conceptual artifact? *Journal of Applied Psychology*, 74(6), 846-854.
- Sverke, M., Hellgren, J., & Naswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7(3), 242-264.
- Thomas, R., & Dunkerley, D. (1999). Careerling downwards? Middle managers' experiences in the downsized organization. *British Journal of Management*, 10(2), 157-169.
- Trevor, C. O., & Nyberg, A. J. (2008). Keeping your headcount when all about you are losing theirs: Downsizing, voluntary turnover rates, and the moderating role of HR practices. *Academy of Management Journal*, 51(2), 259-276.
- Wiesenfeld, B. M., Brockner, J., & Thibault, V. (2000). Procedural fairness, managers' self-esteem, and managerial behaviours following a layoff. *Organizational Behaviour and Human Decision Processes*, 83(1), 1-32.

The Moderating Effect of Geographical Scope on the Relationship between Managers' Prior International Knowledge and Working Experience and International Performance in the Malaysian Halal Food Industry

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ABSTRACT

This study investigates the moderating effects of geographical scope level (measured by number of regional bases) on the relationship between managers' prior international knowledge and working experience and international performance among small and medium enterprises in the Malaysian Halal Food Industry. Previous studies have stressed that experiential knowledge is an essential resource for a firm's internationalization process from both the traditional Stage Theory based on incremental and international entrepreneurship on born global rapid internationalization perspectives. Unfortunately, most of the studies did not empirically investigate the influence of scope level as a moderator on the relationship between international performance and managers' prior international knowledge and working experience. The findings of this study reveal that firms that export regionally (lower scope) have lower experiential knowledge and international performance compared to firms that export globally (higher scope). As a result, there are differences in terms of the internal capability among these two types of small and medium enterprises as a source of their competitive advantage in foreign markets.

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INTRODUCTION

The importance of entrepreneurs has been dealt with in many studies, and the findings reveal a positive relationship between entrepreneurs' international attitude, experience and positive international development (Ibeh & Young, 2001; Westhead *et al.*, 2001). Although there are many studies that have identified the impacts of entrepreneurs and management of firms' internationalization, there is still a need for more research to enhance understanding of small and medium internationalization processes regarding this issue. Furthermore, the international performance of these relatively small firms remains paradoxical as it is difficult to explain how firms with limited financial resources and with little managerial experience (Buckley, 1989; Lu & Beamish, 2001) are able to compete globally against larger and more experienced firms.

According to Casillas *et al.* (2009), prior knowledge may come from very diverse sources, which can be classified into three broad categories: (1) individual level knowledge; (2) company level knowledge; and (3) inter-organization level knowledge. Stage Theory on the incremental internationalization process (Johanson & Vahlne, 1977) argues that foreign experiential knowledge is the prime resource at the firm level. Due to the tacit character of foreign market knowledge, the main source is inevitably through a firm's own operations since this knowledge involves a country-specific environment. As a result, the process of internationalization will develop incrementally starting from

the domestic market, then expanding to a foreign country which has a similar cultural environment with the home market and finally to more distant markets. Therefore, experiential knowledge cannot be easily acquired like objective knowledge.

In the 1990s, however, there was an emergence of new types of SMEs termed as born global firms (BGs) as a result of the globalization phenomenon. By the late 1990s, about a quarter of SMEs around the world derived a major portion of their revenues from foreign countries (Oviatt & McDougall, 1994). Researchers argue that BGs' early and rapid internationalization process can give tremendous impacts to their international performance (Rennie, 1993; Knight & Cavusgil, 1996) compared to incremental internationalization, as proposed by the Stage Theory.

The explanations for the rapid internationalization of SMEs are numerous, and these include entrepreneurial vision and capabilities, prior foreign experience of entrepreneurs (Oviatt & McDougall, 1994), emergence of global demands for goods and services that enable small firms to adopt an international perspective regardless of their age or size (Oviatt & McDougall, 1997). Indeed, previous studies have shown that one element influencing the rapid internationalization of BGs is the level of international knowledge acquired by founders and managers, often prior to start-up of the firms (Madsen & Servais, 1997; McDougall *et al.*, 1994; Nordman & Melen, 2007; Zucchella *et al.*, 2007). The manager's knowledge of foreign

markets is of great importance for BGs as these firms are new and therefore lack an organizational history (Nordman & Melen, 2007). For example, Reuber and Fischer (1997) have demonstrated that internationally experienced top managers are able to move their firm's operations towards internationalization more quickly than their counterpart firms without this competitive advantage. For this reason, firm level knowledge cannot supersede individual level knowledge (Autio, 2005). This study contributes to the body of knowledge on how relatively small SMEs create and use their prior international knowledge and working experience capabilities as a source of competitive advantage for their international performance.

THEORETICAL BACKGROUND: A RESOURCE-BASED VIEW AND INTERNATIONAL NEW VENTURE

From a theoretical point of view, it is important to understand that SMEs are not a smaller replica of large firms (Tapia *et al.*, 2008). They differ fundamentally from large firms in many ways, and these differences could drive the international performance of SMEs in many ways (Piercy *et al.*,

1998; Lu & Beamish, 2001). In this study, we integrated arguments from the theories of Resource-based view (Barney, 1991) and International new ventures (Oviatt & McDougall, 1994). We found these two theories view managerial prior international knowledge and working experiences as important for SMEs capabilities and international performance.

Resource Based View

Generally, Resource-Based View (RBV) concerns with the relationship between a firm's resources and its competitive advantages. Competitive advantages from the RBV perspective can be achieved by focusing on exploiting a firm's internal characteristics, specifically on its resource profiles (Hamel & Prahalad, 1994; Rumelt, 1994). These resources include assets, capabilities, processes, attributes, knowledge, and know-how possessed by a firm, and can be used to formulate and implement competitive strategies (Rivard *et al.*, 2006). Nevertheless, one of the principal insights of the RBV is that not all resources are equally important or possess the potential to be the source of competitive advantages. The RBV relies on

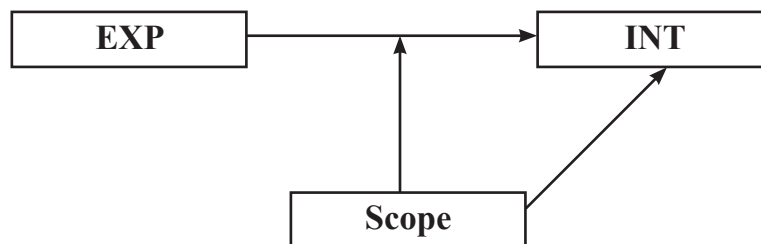


Fig.1. Proposed Theoretical Framework

two fundamental assertions; that of resource heterogeneity (resources and capabilities possessed by firms may differ), and of resource immobility (these differences may be long lasting) (Mata *et al.*, 1995). If a resource possessed by a firm is also possessed by several of its competitors (no heterogeneity), this particular resource will not contribute to its competitive advantage. Heterogeneity is the required condition for obtaining at least temporary competitive advantage. Resource immobility is the required condition for sustained competitive advantage since competitors will face cost disadvantage in obtaining, developing, and using it compared to the firm that has already possessed it. In fact, the RBV literature tends to favour capabilities as the highest order of all firm's resources, and as the most important contributor to the firm's success (Wernerfelt, 1984; Barney, 1986; Amit & Schoemaker, 1993; Peteraf, 1993), since it has the potential to be more significant for profit generators than purchasable resources (Conner, 1991). Capabilities can be defined as an intangible bundle of skills and accumulated knowledge exercised through organizational routines (Teece *et al.*, 1997).

The uniqueness of these capabilities has been conceptualized by RBV theorists (Conner, 1991; Hamel & Prahalad, 1994; Teece *et al.*, 1997) who see learning and knowledge as closely associated with resources and capabilities which can give competitive advantages.

Several scholars (for example, Michalisin *et al.*, 1997; Teece, 2000) also

argue that capabilities such as 'know-how' generate more durable advantages than any other resources of the firm because they are largely complex, specialized and tacit in nature as they are inextricably embedded in a firm's experiences, learning and practices. This knowledge capability is characterized by properties of heterogeneous distribution among firms in the industry and is difficult to duplicate (Barney, 1986; Amit & Schoemaker, 1993; Peteraf, 1993) due to the highest level of causal ambiguity (Galbreath, 2005) and it also provides an advantage in the marketplace (Coates & McDermott, 2002). Similarly, Castanias and Helfat (1991) and Lado *et al.* (1992) suggest that generation of a firm's performance is critically linked (and highly related) to the skill, expertise and know-how of managers. Thus, individual foreign knowledge can help the venture "leapfrog" the incremental processes proposed by Stage Theory.

International New Venture

The phenomenon known as born global by Oviatt and McDougall (1994) has changed the internationalization process whereby firms become international almost immediately after inception. BGs are generally new firms that lack any organizational history. Therefore, they do not possess those deeply-rooted routine, practices and structures that often characterize long-established businesses (Nordman & Melen, 2007). As a result, starting early is an important prerequisite for developing experiential knowledge and contributing to a firm's performance (Zucchella *et al.*, 2007). In

the BG, an analysis on an individual level is important for an understanding of small firms' international behaviour (Andersson & Evangelista, 2006).

Although the size of the firm has now become a secondary issue with much of the research on SMEs, studies by Knight and Cavusgil (1996) and Madsen and Servais (1997) showed that while the term born global might be new, early internationalization is not. Researchers have highlighted that one of the elements influencing the internationalization of BGs is the level of internationalization knowledge acquired by the founders and managers, which is often prior to the start-up of these firms (McDougall *et al.*, 1994; Madsen & Servais, 1997; McDougall *et al.*, 2003). The knowledge found in BGs is thus stored within the individuals starting the firm rather than in the firm's procedures, norms and rules (March, 1991). A few researchers have claimed that a firm's level of knowledge cannot supersede individual knowledge in the BGs (McDougall *et al.*, 1994; Autio, 2005). Hence, prior international knowledge has been cited as a key factor that distinguishes BGs from other exporting firms (Madsen & Servais, 1997; Oviatt & McDougall, 1997; Harveston *et al.*, 2000).

It has also been demonstrated that founders of BGs often have market knowledge built over years from their prior business activities. It is not only the founder but other people in the top management team who can also influence the firm's involvement in foreign markets

(Oviatt & McDougall, 1997). Moreover, the knowledge these managers have about foreign markets, institutions and cultures makes them more aware and also helps them identify and exploit foreign market opportunities. It also gives them confidence, and also reduces their uncertainty about operating in such environments (McDougall *et al.*, 1994; Evangelista, 2005). Hence, it is not surprising that the founders and managers of BGs often have extensive experience in relevant international markets (Rialp *et al.*, 2005). Indeed, other scholars have also supported and further elaborated on these arguments (for example, Knight & Cavusgil, 1996; Crick & Jones, 2000; Andersson & Victor, 2003; Crick & Spence, 2005; Brennan & Garvey, 2008).

Studies have also indicated that it is important for the founder and managers to have experience in the particular industry where their new BGs will be operating (Madsen & Servais, 1997; McDougall *et al.*, 2003). A significant number of BGs have been found to be operating within the high technology industry (Lindqvist, 1991; Harveston *et al.*, 2000; Bell *et al.*, 2001; Bell *et al.*, 2004). However, arguably, BGs may also exist in other industries as well (McDougall *et al.*, 2003), and the founders may have prior experiential knowledge of the international marketplace in their particular industry (Madsen & Servais, 1997; McDougall *et al.*, 2003).

From the above discussion, in the incremental internationalization process based on Stage Theory, the experiential knowledge increases the propensity to

internationalize through the reduction of uncertainty and subsequently raises the perception of opportunity (Johanson & Vahlne, 1977, 1990). However, due to the tacit nature of market knowledge, the main source for acquiring this knowledge is through a firm's own operations in that particular foreign market. In contrast, BGs' views are driven by the premise that early internationalization is to explore an opportunity rather than solving knowledge problems in the foreign marketplace. It can be seen that from the preceding review, experiential knowledge has become a critical concept in both traditional incremental and BG studies (Johanson & Vahlne, 1977, 1990; McDougall *et al.*, 1994; Madsen & Servais, 1997; McDougall *et al.*, 2003; Nordman & Melen, 2007). However, if BGs can generate competitive advantages from their founders' and managers' knowledge, they should be able to internationalize just like a larger firm (Gassmann & Keupp, 2007). As such, BGs do not need to wait such a long time like in the traditional learning process in the Stage Theory to progress gradually before they can enter the foreign market. Meanwhile, Knight and Cavusgil (2005) argue that the earlier the firm internationalizes, the better its ultimate performance.

Hypothesis 1: Scope moderates the relationship between SMEs' experiential knowledge and international performance. The correlation is stronger for high scope than for low scope.

METHODOLOGY

Sample

We selected the halal food industry for our analysis because it is an important contribution to Malaysia's economy as the government plans to make this country global halal hub (IMP3, 2006-2020). We consider a firm to be micro, small and medium-sized when its number of full-time employees is less than five, between five and 50, and between 51 and 150, respectively, for the manufacturing sector (SME, Annual Report, 2007). Our sample thus comprised of producers and at the same time, exporters, drawn from the SME exporters listed with Malaysia Exporters of Halal Products directory (MATRADE) and Halal Development Corporation directory (HDC). The above criteria were intended to ensure that our sample would contain firms that are involved in the halal food industry and are SMEs compared to large MNCs. These databases yielded 400 export firms and all are SMEs. However, only 300 companies were available as the respondents for this study after confirming the current status of their business.

The unit of analysis is the firm, which is represented by either SMEs' founder or manager currently responsible and in-charge of the international/export activities for the firm.

Data Collection Method and Instrument

The data for this study were collected through mail surveys as well as through the Internet using a standardized structured self-

administered questionnaire. Questionnaires are essential to and most directly associated with survey research (Babbie, 2005). The questionnaire consisted of four sections with the following headings: “Firm’s internal capabilities,” followed by “Firm’s external environment”, “Firm’s background”, and “Export performance issues”. From 300 questionnaires sent out, 195 questionnaires were received from the respondents but the usable questionnaires were only 174. Hence, the response rate was 58% (174 firms).

Variable Measurements

Dependent Variable - International Performance

International performance (INT) was measured with a 5-point Likert scale using mean of three items; namely, overseas sales volume, sales growth (turnover), and profitability share based on subjective performance measurements proposed by Crick *et al.* (2006). According to Jantunen *et al.* (2008), subjective performance measurements are important since management evaluation of a firm’s performance seems to be guided more by their subjective perceptions than by objective measurement (Madsen, 1989). Additionally, a single criterion to measure international performance is inappropriate (Crick *et al.*, 2006), and more comprehensive measurements will be needed looking from the country origin perspective (Wheeler *et al.*, 2008). The measurements were adopted based on the study by Crick *et al.* (2006) in the UK using the 5-point Likert scale of 1=very badly to 5=very well.

Independent Variable - Prior International Knowledge and Working Experience

The 11 items in this construct are adopted from the study by Zucchella *et al.* (2007) in Italy on founders’/managers’ international and prior work experiences. Their sample size consisted of SMEs operating in different industries. The scale measurement was modified from ‘yes’ or ‘no’ to the 5-point Likert scale using anchors of 1=strongly disagree, to 5=strongly agree. Wording for ‘entrepreneur’ was changed to ‘founder/manager’ to be consistent with the literature review and other questions in the same questionnaire.

Moderator – Scope Level

There are numerous measurements for scope in the literature review. For example, past studies have measured geographical scope based on the number of countries, cultural cluster, triad market and geographical regions (Noor Azlin, 2011). In this study, the geographical scope measurement was adapted from the studies conducted by Zucchella (2002) and Chetty and Hunt (2003, 2004). They recommended the number of regions as a basis to differentiate between these two types of internationalization processes (incremental versus rapid). Also adopting from Noor Azlin’s study (2011), this paper classified low scope (regional firm) as those that export to between one and three regions (regional firms), and high scope as those that export simultaneously to four regions and above (global firms).

The existence of moderating effect implies that the relationship between two variables (e.g. X and Y) varies as a function of the value of a third variable (e.g. Z) labelled as a moderator (Zedeck, 1971). A moderator explains when or under what conditions X causes Y, or when the relationship is likely to be stronger. For our study, a moderated hierarchical regression analysis (Cohen & Cohen, 1983) was used to introduce the moderating effects in multiplicative ways. Before creating the multiplicative terms, we centred both the independent variables and the moderating ones, thus avoiding the multicollinearity problem (Venkatraman, 1989).

Data Analysis

The analysis of quantitative data was based on a parametric method using the Moderated Multiple Regression (MMR) analysis. MMR is an extension of a multiple regression equation that includes additional predictors carrying information regarding the moderating effect (Aguinis, 2004). Scope is hypothesized by binary grouping of moderator variables in which each moderator has two categories for the product term. The coding scheme used was the dummy coding for each level of speed, scale and scope (0 = low, 1 = high). According to Aguinis (2004), this coding scheme is recommended because of its simplicity and ease of interpretation of the results. The specific test was used to examine whether all the sub-group variances were equal based on Levene's Test of Homogeneity of Variance. Based on the results of Levene's

Test, the observed significant level for the international performance was more than alpha level of 0.05. The result indicates the sub-group variances of these two variables, based on low and high scopes, were equal.

Descriptive statistics presented in Table 1 show that the majority of the firms in our sample, 111 firms, exported to low scope between one and three regions (63.8%) and 63 firms (36.2%) exported to four regions and above at the global scope. The results indicate that there was a great difference in terms of the number of geographical scope (foreign markets) among SMEs, accounting for almost 28.0% difference between the low and high scope levels.

TABLE 1
Sample Composition by SMEs Characteristics
(n=174)

SMEs Characteristics	Frequency	%
Number of regions exported		
1 regions - 3 regions	111	63.8
4 regions and above	63	36.2

RESULTS

Scope Level Moderates the EXP-INT Relationship

Table 2 shows the results of the moderating effect of scope on the relationship between international knowledge and work experience (EXP) and international performance (INT). In particular, the table shows for Model 1, $R = .398$ $R^2 = .158$, and $F(2, 171) = 16.063$, $p = .0001$. This R^2 means that 15.8% of the variance in INT is explained by EXP and scope. The interaction effects of the scope are differentiated into those of low scope and high scope. Model 2 shows the results after

the product term has entered the equation. As shown in Table 2, the addition of the product term results in R^2 change of 0.020, $F(1, 170)=4.209$, $p=.042$. The significant differences between $R^2=0.158$ in Model 1 and $R^2 = 0.178$ based on the F statistic are identical to the t statistic for the regression coefficient for the product term (i.e. $p=.042$) in Model 2, and this supports the presence of a moderating effect. In other words, the moderating effect of scope explains 2 % of variance in INT increases above and beyond the variance explained by EXP and scope.

Table 3 describes the unstandardized coefficients value for the regression equation for Model 1 resulting regression equation, as follows:

$$\text{INT} = 1.916 + .302 \text{ EXP} + .562 \text{ Scope} \quad \dots \text{E1.1}$$

The coefficients for both EXP and scope in Model 1 are statistically significant at $p = .0001$ level. Equation 1.1 demonstrates that for one point increase in EXP, INT is expected to increase by 0.302, given that the scope is held constant. The regression coefficient associated with scope indicates that the differences in INT increase between the SMEs from the low and high scope are 0.562, provided that EXP is held constant. Table 2 also includes further information regarding the regression unstandardized coefficients after the product term has entered the equation. The equation is as follows:

$$\text{INT} = 2.534 + .120 \text{ EXP} + -1.134 \text{ Scope} + 0.472 \text{ EXP. Scope} \quad \dots \text{E 1.2}$$

Results from Equation 1.2 lead to the conclusion that there is a moderating effect of scope on the EXP-INT relationship. Equation 1.2 further demonstrates that there is a 0.472 difference between the slope of INT increase on EXP between the low scope and the high scope SMEs. This result indicates the presence of the moderating effect of scope on the EXP-INT relationship. For further descriptions on the moderating effect, the regression equation for each group was constructed to produce the graph of the EXP-INT relationship for each of the low scope and high scope SMEs. Based on the code assigned for scope (0= low scope, 1= high scope), results are given in the following equations:

$$\begin{aligned} \text{INT (Low scope)} \\ &= 2.534 + 0.120 \text{ EXP} + -1.134 \text{ Scope} \\ &\quad + 0.472 \text{ EXP. Scope} \quad \dots \text{E1.3} \end{aligned}$$

$$\begin{aligned} &= 2.534 + 0.120 \text{ EXP} + -1.134 (0) \\ &\quad + 0.472 (0) \\ &= 2.534 + 0.120 \text{ EXP} \end{aligned}$$

$$\begin{aligned} \text{INT (High scope)} \\ &= 2.534 + 0.120 \text{ EXP} + -1.134 \text{ Scope} \\ &\quad + 0.472 \text{ EXP. Scope} \quad \dots \text{E1.4} \end{aligned}$$

$$\begin{aligned} &= 2.534 + 0.120 \text{ EXP} + -1.134 (1) \\ &\quad + 0.472 \text{ EXP} (1) \\ &= 1.40 + 0.592 \text{ EXP} \end{aligned}$$

TABLE 2
Model Summary for INT on EXP for Scope

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics				
					R ² Change	F Change	df1	df2	Sig. F Change
1	.398 ^a	.158	.148	.83391	.158	16.063	2	171	.000
2	.422 ^b	.178	.164	.82619	.020	4.209	1	170	.042

a. Independent variables: (Constant), scope, EXP

b. Independent variables: (Constant), scope, EXP, EXP.Scope

c. Dependent variable: INT

TABLE 3
Coefficients for INT on EXP for Scope

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.916	.392		4.886	.0001
	EXP	.302	.113	.194	2.666	.008
	Scope	.562	.136	.300	4.124	.0001
	(Constant)	2.534	.491		5.155	.0001
2	EXP	.120	.143	.077	.838	.403
	Scope	-1.134	.838	-.605	-1.354	.178
	EXP.Scope	.472	.230	.953	2.051	.042

a. Dependent variable: INT

Based on the values of EXP ($M=3.510$, $SD=.581$), the values of 4.09 (1 SD above the mean) and 2.93 (1 SD below the mean) produced the graph shown in Fig.2 below. As expected, the examination of Fig.2 showing the EXP-INT relationship for each of the groups separately indicates that the relationship is stronger (i.e. steeper slope) for SMEs from the high scope compared to the low scope SMEs. Based on this result, this study found support for H_1 , that the correlation between EXP and INT is stronger for higher scope than lower scope SMEs. Thus H_1 receives full support.

DISCUSSION

Fig.2 reveals that both regional and global firms rely on prior international and work experiences of their managers. However, from this figure, it is seen that the regional firms have lower prior international and work experience that lead to lower international performance compared to global firms. Arguably, traditional SMEs have been found and labelled to have a relatively long domestic business experience before proceeding through the stages of internationalization due to resource constraints. Thus, they possess

little internationalization capability at the very beginning of internationalization (Johanson & Vahlne, 1977, 1990). There is a possibility that for regional firms hiring of skilled managers or additional managers with international experience is not really crucial at this level and also it is not an easy task since it can become extremely costly to the owners in terms of salary expenses. In fact, in many cases, the managers and key personnel rely on their own abilities and skills from their working and international experiences (Luostarinen & Gabrielsson, 2006). Another possibility is that some of the firms are from family businesses, where growth is not their main objective, i.e., to maintain their control by holding managerial positions or as shareholders of the firm.

For global firms, on the other hand, it is likely for them to have higher prior international experience by their own founders/managers that helps to be more effective in facilitating the achievement

of business objectives due to their higher level of expertise. Generally, these attributes may provide a basis for resource advantage against rival firms. It is also expected that the managers of global firms are able to hire highly experienced managers to act on behalf of their firms due to their firms' age and volume of business expansion, specifically to different regions/psychological distance. Thus, it is more likely that with prior experiences in international and business knowledge, they can help reduce costly mistakes and are more effective in facilitating the achievement of the firm's business objectives and international performance. In addition, there is also a possibility that these managers come from well-established family business backgrounds with consumers, agents or subsidiaries in foreign markets. It will require them to always travel overseas for their businesses. As a result, the knowledge these managers have of foreign markets, institutions and

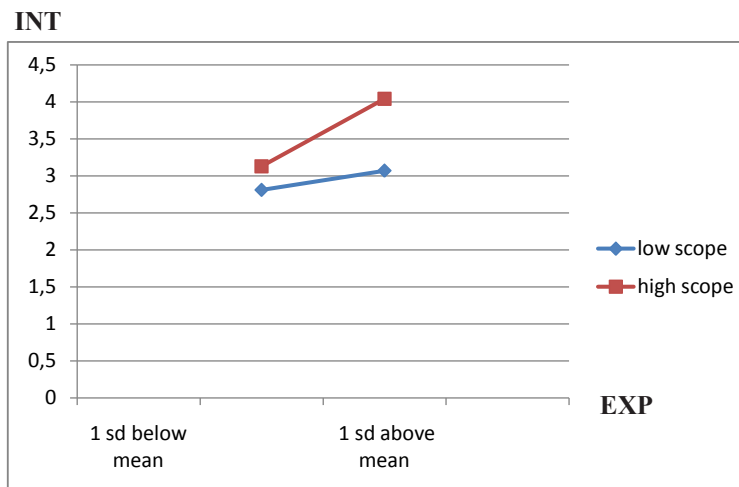


Fig.2: Slopes for International Performance on International and Working Experience for Low and High Scope

cultures makes them more aware and helps them to identify and exploit foreign market opportunities. It also gives them confidence, and helps to reduce their uncertainty about operating in such environments (McDougall *et al.*, 1994; Evangelista, 2005).

The findings of this study, based on Fig.2, contradict the literature in which managers' prior international knowledge and working experience have been cited as key factors that distinguish BGs from other exporting firms (see Rennie, 1993; Oviatt & McDougall, 1994; Knight & Cavusgil, 1996; Madsen & Servais, 1997; Harveston *et al.*, 2000; Andersson & Wictor, 2003; Nordman & Melen, 2007) since these firms are new and therefore lack organizational history (Nordman & Melen, 2007). The results in this current study indicate that both regional and global firms require this experiential knowledge capability in foreign markets but the differences are based on the level of experiential knowledge, where global firms have higher capability compared to regional firms. There is a possibility that global firms operating in a higher number of geographical scope and more diverse markets, and are also more knowledgeable in terms of foreign markets and cultural requirements in addition to their halal product status. As a result, global firms have better competitive advantage in terms of tacit knowledge compared to regional firms in producing and exporting their halal food products to meet these specific target consumers in diverse markets. The findings partially supported that of Gassmann and Keupp (2007) who argued that if BGs

could generate competitive advantages from managers' prior knowledge, they should be able to internationalize just like a larger firm. The findings also support the role of competitive advantage based on the managerial tacit knowledge capability, as proposed by both theories - RBV and international new venture. The findings support the results by Zucchella (2002), whose study used regions rather than countries as a basis of competition. The findings also corroborate with the study by Ruzzier *et al.* (2006), who defined the term 'globalization' as a reference to a stage in which a firm's operations are managed on a global scale and not just in a few selected countries.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study focused on one industry in a single country sample, where data were collected from the Malaysian halal food industry; one of the emerging industries, and from a developing country perspective. It would be productive for future researchers to investigate the internationalization process of firms in other halal industry settings such as pharmaceuticals, cosmetics and tourism, among other.

Secondly, due to limitations of time and resources, this study only focused on SMEs' internal capabilities based on managers' prior international knowledge and working experiences. It is also interesting to look at other managers' capabilities such as global mindset, networking and international entrepreneurial orientation.

The findings indicate that there are two other types of firms based on their scope level, termed as 'regional versus global' firms that adopt incremental versus rapid internationalization process. The characteristics for regional firms are similar to the Stage Theory based on the traditional incremental process, but at a later stage, internationalization processes are characterized by born globals that are similar to global firms in this study. Further qualitative studies could be conducted to generate more knowledge to explain this phenomenon and to differentiate these two types of groups based on their experiential knowledge as a source of competitive advantage, geographical scope level, and international performance. Another alternative would be to conduct further research that distinguishes these groups based on their heterogeneous resources such as learning method (reactive versus proactive), types of products offered (homogeneous versus specialty products), growth strategy (within regional or between regions), and level of manager's capabilities as a mediating variable.

CONCLUSION

The findings revealed that there exist differences in terms of the level of managers' international experience and working experience among SMEs that export regionally (low scope) compared to those SMEs who are global (high scope). As a result, global SMEs have better managers'

capability and international performance compared to regional SMEs. The managers need to be aware of important issues such as their own capabilities, which could be either a main barrier or a motivation in the internationalization process. Perhaps, the best investments that SMEs can make in this context are to strengthen their human resources capabilities, hiring new qualified personnel with international working experience background to join their management team or appointing outside expertise as advisors. There should also be more training programmes or on-the-job training to gain foreign market experiential knowledge and confidence among the staff, apart from reducing the feelings of uncertainty about operating in these new and diverse markets (McDougall *et al.*, 1994; Evangelista, 2005) and complying with the syariah requirements imposed by the government in the halal food industry.

REFERENCES

- Aguinis, H. (2004). *Regression analysis for categorical moderators*. The Guilford Press.
- Amit, R., & Schoemaker, P. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14(1), 33-46.
- Andersson, S., & Evangelista, F. (2006). The entrepreneurial in the born global firm in Australia and Sweden. *Journal of Small Business and Enterprise Development*, 13(4), 642-659.
- Andersson, S., & Wictor, I. (2003). Innovative in internationalization in new firms: born globals - the Swedish case. *Journal of International Entrepreneurship*, 1, 249-276.

- Autio, E. (2005). Creative tension: The significance of Ben Oviatt's and Patricia McDougall's article 'Toward a theory of international new ventures'. *Journal of International Business Studies*, 36(1), 9-19.
- Babbie, E. (2005). *The practice of social research* (11th Edn). Thomson.
- Barney, J. (1986). Strategic factor markets: expectations, luck and business strategy. *Management Science*, 32(10), 1231-1241.
- Barney, J. (1991). Firm resources and sustainable competitive advantage. *Journal of Management*, 17(1), 99-120.
- Bell, J., McNaughton, R., & Young, S. (2001). 'Born-again global' firms—an extension to the 'born global' phenomenon. *Journal of International Management*, 7(3), 173-189.
- Bell, J., Crick, D., & Young, S. (2004). Small firm internationalization and business strategy. An exploratory study of knowledge intensive and traditional manufacturing firms in the UK. *International Small Business Journal*, 22(1), 23-56.
- Brennan, L., & Garvey, D. (2008). The role of knowledge in internationalization. *Research in International Business and Finance*, 1-14.
- Buckley, P. J. (1989). Foreign direct investment by small and medium sized enterprises: The theoretical background. *Small Business Economics*, 1, 89-100.
- Casillas, J. C., Moreno, A. M., Acedo, F. J., Gallego, M. A., & Ramos, E., (2009). An integrative model of the role of knowledge in the internationalization process. *Journal of World Business*, 44, 311-322.
- Castanias, R. P., & Helfat, C. E. (1991). Managerial resources and rents. *Journal of Management*, 17, 155-171.
- Chetty, S., & Hunt, C. C. (2003). Paths into internationalization among small- to medium-sized firms. A global versus regional approach. *European Journal of Marketing*, 37 (5/6), 796-820.
- Chetty, S., & Hunt, C. C. (2004). A strategic approach to internationalization: A traditional versus a "born global" approach. *Journal of International Marketing*, 12(1), 57-81.
- Coates, T. T., & McDermott, M. C. (2002). An exploratory analysis of new competencies: a resource based view perspective. *Journal of Operations Management*, 20, 435-450.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.), Hillsdale, NJ: Erlbaum.
- Conner, K. R. (1991). A historical comparison of Resource Based Theory and Five Schools of Thought within industrial of organizations economics: do we have a new theory of the firm? *Journal of Management*, 17, 121-154.
- Crick, D., & Jones, M. V. (2000). Small high-technology firms and international high-technology markets. *Journal of International Marketing*, 8(2), 63-85.
- Crick, D., & Spence, M. (2005). The internationalization of 'high performing' UK high-tech SMEs: a study of planned and unplanned strategies. *International Business Review*, 14, 167-85.
- Crick, D., Bradshaw, R., & Chaudry, S. (2006). Successful internationalizing UK family and non-family-owned firms: a comparative study. *Journal of Small Business and Enterprise Development*, 13(4), 498-512.
- Evangelista, F. (2005). Qualitative insights into the international new venture creation process. *Journal of International Entrepreneurship*, 3(3), 179-198.
- Galbreath, J. (2005). Which resources matter the most to firm success? An exploratory study of resource based theory. *Technovation*, 25, 979-987.

- Gassmann, O., & Keupp, M. M. (2007). The competitive advantage and early and rapidly internationalizing SMEs in the biotechnology industry: a knowledge based view. *Journal of World Business*, 42, 350-366.
- Government of Malaysia (2006). Third Industrial Master Plan 2006-2020 (IMP3). Kuala Lumpur: National Publication Berhad.
- Hamel, G., & Prahalad, C. K (1994). *Competing for the Future*. Boston, MA: Harvard Business School Press.
- Harveston, P., Kedia, B., & Davis, P. (2000). Internationalization of born global and gradual globalizing firms: the impact of the manager. *Advances in competitiveness research*, 8(1), 92-99.
- Ibeh, K. I. N., & Young, S. (2001). Exporting as entrepreneurial act – an empirical study of Nigerian firms. *European Journal of Marketing*, 35(5/6), 566-586.
- Jantunen A., Nummela, N., Puumalainen, K., & Saarenketo S. (2008) Strategic orientations of born globals: Do they really matter? *Journal of World Business*, 1-13.
- Jobber D. (1989). An examination of the effects of questionnaire factors on response to an industrial mail survey. *International Journal of Research in Marketing*, 6, 129-140.
- Johanson, J., & Vahlne, J. E. (1977). The internationalization process of the firm- a model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, Spring, 23-32.
- Johanson, J., & Vahlne, J. E. (1990). The mechanism of internationalization. *International Marketing Review*, 7(4), 11-24.
- Knight, G. A., & Cavusgil, S. T. (1996). The born global firm: A challenge to traditional internationalization theory. *Advance in International Marketing*, 8, 11-26.
- Knight, G. A., & Cavusgil, S. T. (2005). A taxonomy of born global firms. *Management International Review*, 45(3), 15-35.
- Lado, A. A., Boyd, N. G., & Wright, P. (1992). A competency-based model of sustainable competitive advantage: toward a conceptual integration. *Journal of Management*, 18, 77-91.
- Lindqvist, M. (1991). Infant multinational: the internationalization of young, technology-based Swedish firms. *Dissertation*, Stockholm Scholl of Economics, Institute of International Business.
- Lu, J. W., & Beamish, P. W. (2001). The internationalization and performance of SMEs. *Strategic Management Journal*, 22(6/7), 565-586.
- Luostarinen, R., & Gabrielsson, M. (2006). Globalization and Marketing Strategies of Born Globals in SMOPECS. *Thunderbird International Business Review*, 48(6), 773-801.
- Madsen, T. K., & Servais, P. (1997). The internationalization of born globals: an evolutionary process? *International Business Review*, 6(6), 561-583.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organizational Science*, 2, 71-87.
- Mata, F. J., Fuerst, W. L., & Barney, J. B. (1995). Informationtechnology and sustained competitive advantage: aresource-based analysis. *MIS Quarterly*, 487-504.
- McDougall, P. P., Shane, S., & Oviatt, B. M. (1994). Explaining the formation of international joint ventures: the limits of theories from international business research. *Journal of Business Venturing*, 9, 469-487.
- McDougall, P. P., Oviatt, B. M., & Shrader, R. C. (2003). A comparison of international and domestic new ventures. *Journal of International Entrepreneurship*, 1(1), 59-82.

- Michalisin, M. D., Smith, R. D., & Kline, D. M. (1997). In search of strategic assets. *The International Journal of Organizational Analysis*, 5(4), 360-387.
- Noor Azlin, I. (2011). *The moderating effects of degree of internationalization on factors affecting the international performance of small and medium enterprises in the Malaysian halal food industry*. (Unpublished Doctor of Philosophy Thesis). Graduate School of Management, Universiti Putra Malaysia, Selangor, Malaysia.
- Nordman, E. R., & Melen, S. (2007). The impact of different kinds of knowledge from the internationalization processes of born globals in the biotech business. *Journal of World Business*, 32(5), 1-15.
- Oviatt, B. M., & McDougall, P. P. (1994). Toward a theory of international new ventures. *Journal of International Business Studies*, 1, 45-64.
- Oviatt, B. M., & McDougall, P. P. (1997). Challenges for internationalization process theory: the case of international new ventures. *Management International Review*, 37(2), 85-99.
- Peteraf, M. (1993). The cornerstone of competitive advantage. *Strategic Management Journal*, 14, 179-191.
- Piercy, N. F., Kaleka, A., & Katsikeas, C. S. (1998). Sources of competitive advantage in high performing exporting companies. *Journal of World Business*, 33, 378-393.
- Rennie, M. W. (1993). Born global. *McKinsey Quarterly*, 4, 45-52.
- Reuber, R., & Fischer, E. (1997). The influence of the management team's international experience on the internationalization behaviors of SMEs. *Journal of International Business Studies*, 28(4), 807-826.
- Rialph, A., Rialph, J., & Knight, G. A. (2005). The phenomenon of early internationalizing firms: What do we know after a decade (1993-2003) a scientific inquiry? *International Business Review*, 14, 147-166.
- Rivard, S., Raymond, L., & Verreault, D. (2006). Resource-based view and competitive strategy: An integrated model of the contribution of information technology to firm performance. *Journal of Strategic Information Systems*, 15, 29-50.
- Rumelt, R., Schendel, D., & Teece, D. (Eds.). (1994). *Fundamental Issues in Strategy: A Research Agenda*. Boston: Harvard Business School Press.
- SME Annual Report (2007). Retrieved on April 2009, from <http://www.bnm.gov.my/files/publication/sme/en/2007/appendieces.pdf>.
- Tapia, I. M., Aragon-Correa, J. A., & Senise-Barrio, M. E. (2008). Being green and export intensity of SMEs: The moderating influence of perceived uncertainty. *Ecological Economics*, 68, 56-67.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-553.
- Teece, D. J. (2000). *Managing intellectual capital: Organizational, strategic and policy dimensions*. Oxford: Oxford University Press.
- Venkatraman, N. (1989). The concept of fit in strategy research: Towards verbal and statistical correspondence. *Academy of Management Review*, 14(3), 423-444.
- Wernerfelt, B. (1984). A resource based view of the firm. *Strategic Management Journal*, 5(2), 171-180.
- Westhead, P., Wright, M., & Ucbasaran, D. (2001). The internationalisation of new and small firms: a resource-based view. *Journal of Business Venturing*, 16, 333-58.

- Zedeck, S. (1971). Problems with the use of "moderator" variables. *Psychological Bulletin*, 76, 295-310.
- Zucchella, A. (2002). *Born global versus internationalizing firms: An analysis based on Italian case*. Paper proposed to be presented in the 28th EIBA Conference 2002, in the special session SME internationalisation and born globals - different European views and evidence.
- Zucchella, A., Palamara, G., & Denicolai, S. (2007). The drivers of early internationalization of the firm. *Journal of World Business*, 42, 268-280.

Investing in Toll Highway: Private or Public Financing with Scenario-Based Solution

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ABSTRACT

Whilst governments worldwide juggle competing priorities within the context of limited budgets, Malaysia has acted to seek more effective ways of building highways. In Malaysia, private involvement is allowed for the construction of highways in order to stimulate economic activity that is rarely matched elsewhere. This private finance involvement is able to reduce the public sector workforce and increase employment opportunities. However, most of the private or public/private toll highway project partnerships in the 80s and 90s have yet to yield any hard evidence of being successfully profitable, since few of the typically 30- to 50-year concession agreements have yet to mature. This paper provides a financing appraisal and scenario-based solution to aid private or public decision-making to finance highway projects.

Keywords: Toll highway, private financing, public financing

INTRODUCTION

Private investment of toll highways in Malaysia can be traced back to the late 1980s (Expressway, 2010). The Malaysian Highway Authority (MHA) was originally responsible for completing the entire North-South Expressway, which stretches over 900 km between Bukit Kayu Hitam (in the

north) to Johor Bahru (in the south). To date, it is the largest (and the longest) single toll road project in Malaysia, and was originally developed in response to traffic saturation on Federal Route 1, which runs both north and south of Kuala Lumpur (MITI, 2009). However, in order to finance the remaining sections, the government chose to privatize the construction programme, and in 1988, the MHA's role was transferred to the newly-formed private company "Project Lebuhraya Utara-Selatan Berhad" (PLUS Ltd). The government's interest was bolstered by

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their agreement to provide a loan facility, if traffic levels were lower than expected, during the first 17 years of the concession period. Companies like PLUS, Grand Saga (Concession Company for the Cheras-Kajang Highway), Maju Expressway MEX (Operator for the KL-Putrajaya Highway), Besraya (Operator of the Besraya Highway from the Istana Interchange to the UPM Interchange), and East Coast Expressway ECE (Operator for the Kuala Lumpur-Karak Highway), are good examples of those that have obtained these benefits to finance their toll highway businesses.

This paper provides a financing appraisal of the key issues prevalent to the costs incurred in building highways. Essentially, a good highway network is a prerequisite - though by no means a guarantee - of positive economic development. In view of the strategic role of good highways in a country's economic development and the large investment required, a careful financing appraisal of these investments is crucial. These findings will hopefully provide a comprehensive review of all aspects of project costs and laydown a foundation for the implementation of private or public finance involvement. The two main objectives of this study are:

- to improve decision-making using a scenario-based solution; and
- to carry out an appraisal of financial issues.

METHOD OF DATA COLLECTION

Before a toll highway is built in a given region, it is impossible to calculate the influence of tolls on the diversion of traffic from existing roads to toll highways due to the absence of empirical data. The usual approach, in such a situation, is to conduct questionnaire surveys amongst potential users such as car drivers, truck drivers, and large fleets of company cars. In this study, data were gathered from feasibility studies that had been carried out by a local consulting engineering firm in Malaysia. However, due to confidentiality, some of the data had to be predicted and several issues could only be appraised briefly. In addition, traffic composition data for 2010 from the Roads Branch, Public Works Department of Malaysia, were used to predict traffic levels.

FINANCIAL VIABILITY AND FINANCING PROJECT COSTS

Whether tolls are applied to an entire network, to a stand-alone highway, or to a segment of highway, the most fundamental issue is whether the income from the tolls will be sufficient to cover the costs of building and maintaining the highway. If not, the project will be unfeasible from the very start. The financial viability structure includes:

- i. Construction costs – in full or in part. In some cases, these may include the cost of acquiring the necessary land.
- ii. Maintenance costs – including the cost of collecting tolls during the toll-bearing period of the highway's existence.

- iii. Financing costs – the costs of raising funds to finance the project; principally the cost of interest payments.
- iv. Profit – will be set at zero for an entirely public-financed initiative project, but will be required for privately-financed or public-private partnership initiative projects. Levels to be set during the concessionary period.

Additionally, there are various methods of financing project cost of a toll highway. Referring to the kinds of partnership between the public and private sectors in toll highway businesses from a financing viewpoint, two basic patterns emerged: (1) project finance system; and (2) other modes of financing. Project finance systems are adopted in concessionaire-type public-private partnership finance initiatives using formulas such as Built Operate Transfer (BOT), Built Transfer Operate (BTO), and Built Lease Transfer (BLT). Project finance systems are claimed to be amongst the most reliable tools for converting a system of inclusive financing, backed by the credit-worthiness of the government, into a system that allows concessionaires to raise funds directly from financial markets under conditions of 'small government'. Another mode of financing is the non-project finance system, where, rather than raising finance for the entire project, with a view to repaying the investment from operating revenue, the concessionaire has a contractual arrangement with a separate body to whom it would sell the completed highway.

Similarly, a financial feasibility study is carried out to estimate cash flow. This analysis aims to obtain the financial rate of return and the methods employed are similar, where a discount rate is calculated to equalize the net present values of expenditure and income. Expenditure is comprised of construction costs, right-of-way acquisition costs, maintenance and operating costs, fund raising costs, and interest. In this study, the capital value method is used, by referring to the variant of "Net Present Value" (NPV). In the NPV variant, the forecast expenditure is discounted to be present at that time. According to the capital value method, the project is recommended; if it shows a positive capital value, in the case of the net present value variant, a "value greater than null (NPV value > 0); and in the final value variant, a 'value greater than a horizon value of the alternative capital investment (Sheila, 1994).

TRAFFIC VOLUME FORECASTING FOR TOLL HIGHWAYS

Traffic volume forecasts are the most fundamental data during the financial analysis of a highway, from the planning stage onwards. They influence the fundamental decision of whether the highway should be a toll highway or not; and later, they influence decisions of setting and adjusting toll levels during a collection period. In Malaysia, when a large-scale toll highway is planned, the financial institutions investing in them usually conduct their own traffic volume surveys to verify the would-be concessionaire's forecast. In this study,

the forecast takes into account recent traffic-growth. This was obtained after applying the growth rates of 5% for 2000 to 2010 and 4.0% for 2010 to 2025 to the base year 2000. Meanwhile, traffic volumes were obtained from the JKR's Road Traffic Model of 2009 (Ministry of Works Malaysia, 2009). Meanwhile, traffic forecasting was extrapolated from the previous trends based on the traffic model for the Seremban - Kuala Lumpur expressway. This figure was based on the available traffic records between the 1995 and 2005 (Department of Statistics, 2009). It was predicted that traffic on the new highway would come from two sources: 1) traffic diverted from existing roads, and 2) traffic generated by reduced transport costs.

The average daily traffic on the old road was 60,000 vehicles. During the next 20 years, i.e. before the completion of the new highway, passenger car traffic was estimated to increase by 5% between 2000 and 2010 and by 4.0% between 2012 and 2020 (Department of Statistics, 2009). This

forecast took into account traffic growth and the number of completed highways since 2010. However, in this study, it was assumed that 92% of the existing traffic would divert to the new highway, whilst the other 8% remained as local traffic. This increase in traffic was allowed for after 20 years, because at that time, the highway's capacity was expected to reach 260,000 vehicles (Department of Statistics, 2009).

Similarly, reduced transport costs on the new highway were also expected to generate new traffic. Based on traffic trends (Ministry of Works, Malaysia, 2010) between Kuala Lumpur and Seremban, with the expressway's generated traffic was estimated to increase by 10% of the traffic diverted from the existing roads during the first year after completion. This would be followed by 15% during the fifth year, and another 15% during the tenth year. The traffic forecast between 2000 and 2030 is shown in Table 1.

TABLE 1
Forecast of daily traffic on the highway between 2000 and 2030¹

Year	Diverted from existing roads	Generated traffic	Passenger Car Unit/Day
2000	100,000	9,500	109,500
2005	111,500	16,000	127,500
2010	124,000	24,000	148,500
2015	148,000	26,500	164,500
2020	161,500	29,000	180,500
2025	193,500	33,500	201,500
2030	245,000	38,000	252,500

Source: The Ministry of Works, Malaysia (2010)

¹Based on Road Traffic Volume Malaysia 2010, by Highway Planning Unit Ministry of Works Malaysia

OPERATIONAL MANAGEMENT

Upon project completion, the concession company is required to maintain and operate the new highway. The following recurrent costs are expected (Sidney, 1995):

- Operation costs - wages, salaries, and utility bills.
- Building and equipment maintenance.
- Pavement resurfacing and heavy repairs.
- Transportation and depreciation charges.

Annual operation and maintenance costs for the highway were estimated at RM25 million for the entire project. However,

at least 30% of the maintenance costs are accounted for by foreign exchange and interest rates, which overshadow the actual economic cost for annual maintenance. This cost is assumed to increase gradually with the growth of traffic, until the year 2025. Additionally, major repaving is needed every sixth year, at an estimated cost of RM30 million. Nevertheless, maintenance and operation costs are estimated for 25 years only - the economic life of the project - assuming that the concession period is 30 years.

TABLE 2
Estimated Capital Funding (in millions of Ringgit Malaysia, RM)¹

Conditions of site	Length for the entire 25km of highways	Cost Per Km. (million)	Cost Over Distance (million)
Site 1: New site area	Construction of a new 10km dual three-lane elevated expressway. The route is assumed to be running along the mangrove swamps, peat soil area, or river banks, and partially enter the existing State Road to link the North-South Highway at any existing interchange.	30.6	306
Site 2: Within city vicinity	Construction of a 15km dual three-lane road, consisting of existing and new roads. The new city ring-road forms part of the circumferential route around the hub of the new town centre.	34.2	513
Contingency 10%			78
Cost of Land Acquisition and Property Acquisition			198
Cost of Project Management and Consultancy, Soil Investigation, and Preliminary Site Survey (15%)			134
Total Capital Cost			1,229

¹Estimated costs based on the Project Lebuhraya Utara-Selatan's (PLUS) Design, Build, Operate, and Transfer (DBOT), from 1988 to present.

MULTI-CRITERIA ANALYSIS

Evaluation of toll highway projects may be roughly classified into those that are carried out before and after the road is opened. Benefits may include: (1) reduced vehicle operating costs on the new highway for traffic diverted from old roads, and generated traffic; (2) vehicle operating costs for the traffic remaining on old roads; and (3) time saved for passengers and freight (PwC, 2010).

Most benefits are estimated in terms of the traffic volume diverting from the existing roads to the newly proposed highway. Naturally, it is assumed that diverted traffic is able to enjoy all benefits, which are calculated in terms of cash as follows:

1. *Traffic diverted from old roads:*

As indicated, the average daily traffic on the highway will reach about 109,500 vehicles in year three. One reason for this is that the travel time on the new and shorter highway has been reduced to 15 minutes for cars

and about half an hour for trucks and buses. Results of studies on vehicle operations for the existing roads and the newly proposed highway indicating costs per vehicle-km are shown in Table 3.

The benefits of this diverted traffic in year three are shown in Table 4. The unit benefits for the traffic diverted from the existing road is RM 0.80 per car-km. The traffic gain by distance would be 1km less (i.e., the length of the old road is 26km and the proposed highway is 25km). Table 4 shows that the total benefits for traffic diverted is RM815.34 million. Benefits due to the shorter distance is RM175.86 (21.6%) and RM639.5 million (78.4%) by improved highway design standards.

2. *Generated Traffic*

For generated traffic (see Table 5). The unit benefit is estimated to be one-half of that used for traffic diverted from the old road. The benefit generated from traffic level is due to the increased reduction of maintenance costs.

TABLE 3
Vehicle operating costs on old roads and the newly proposed highway (in Ringgit Malaysia)¹

Cost item	Vehicle	
	Old Road	Proposed Highway
Fuel and oil	1.50	1.20
Tyre wear	0.50	0.40
Depreciation	0.80	0.70
Interest	0.60	0.50
Maintenance	1.00	0.80
Total	4.40	3.60
Benefit	4.40 - 3.60 = RM 0.80 per car-km.	

¹Estimated cost is based on the Project Lebuhraya Utara-Selatan's (PLUS) Design, Build, Operate, and Transfer (DBOT), and the Rehabilitate, Operate, and Transfer (ROT) business model.

3. *Reduced Vehicle Operating Costs (VOC) on the Old Road*

The diversion of 92% of the traffic to the new highway is expected to reduce congestion on the existing road; and thus, benefits the remaining traffic. In year three, it is predicted that a total of 11,000 vehicles less will use the old road daily. As a result, a 5% reduction in vehicle operation costs is expected. The benefit in year three will be:

$$\begin{aligned} & 11,000 \text{ cars} \times 25 \text{ kilometres} \times 365 \text{ days} \\ & \times \text{RM } 0.20 \\ & = \text{RM } 20.07 \text{ million} \end{aligned}$$

4. *Benefit from the reduction in time for a car*

The time saved for vehicles, passengers, and freight operators using the highway, contributes to approximately 5% of the total benefit. The estimated time-saving value per passenger is RM 1.00 an hour per car and RM 2.75 an hour per freight vehicle. Assuming the economic life of a car is 4000 hours and the value per/hr. of car is RM100; the cost of delays for cars in year three (2003) is equivalent to $109,500 \times 365 \times 1 \times 0.25 / 4000 \times 100$. The total benefit from the reduction in time in year three for cars is therefore RM 8.03 million.

TABLE 4

Benefits for traffic diverted from the old road in year three (millions of Ringgit Malaysia)

Traffic variable and vehicle	Calculation	Benefits
Shorter distance (Car)	109,500 cars X 5 km. x 365 days X RM 4.40	175.86
Highway design standards (Car)	109,500 cars X 20 km x 365 days X RM 0.80	639.48
Total		815.34

TABLE 5

Benefit for the generated traffic in year three (in Ringgit Malaysia, RM)

Traffic variable and vehicle	Calculation	Benefits
Shorter distance (Car)	5,700 cars X 5 km. X 365 days X RM 2.20	22.89
Highway design standards (Car)	3,800 cars X 20 km. X 365 days X RM 0.40	11.10
Total vehicles (5700+3,800=9500)		33.99

TABLE 6

Reduction in time (in Ringgit Malaysia, RM)

Year	(No. vehicles) X (days) X (reduction in time ÷ economic lifetime) X (value per hour) X (years)	Benefits
2004-2005	118,500 cars x 365 days x 1 yr. x 0.25 hr. ÷ 4000 x RM100 x 2	0.54
2006-2010	138,000 cars x 365 days x 5yrs x 0.25 hr. ÷ 4000 x RM100 x 2	1.57
2011-2015	156,000 cars x 365 days x 5yrs x 0.25 hr. ÷ 4000 x RM100 x 2	1.78
2016-2020	172,000 cars x 365 days x 5yrs x 0.25 hr. ÷ 4000 x RM100 x 2	1.96
2021-2025	191,000 cars x 365 days x 5yrs x 0.25 hr. ÷ 4000 x RM100 x 2	2.18
TOTAL		8.03

5. Toll Rate and Revenue

The toll rate for new highways is based on the North-South Expressway's toll charges. The 2000 rate-schedule of RM 0.06 per km for cars increased by 30% in 2005, and this was by a further 20% in 2010. The current toll rate for passenger cars using the North - South Expressway (operated by PLUS) is RM0.12 per km. The subsequent revenue is forecast from the traffic modelling results. In theory, the revenue obtained in this way provides a valuable source of funds for highway maintenance planning, upgrading, and future expansion.

COSTS AND BENEFITS ANALYSIS

The benefits of the proposed highway exceed its costs - both discounted at 12% - by about RM469.3 million, during its economic life. Meanwhile, a cost:benefit ratio of almost 1:1.39 indicates that the project is well justified.

As the project has a high net worth, it is not particularly sensitive to changes in any single factor. For example, if the capital cost of the project is 25% higher than estimated, the net present value of the project is RM199.5 million. The switching value for

capital costs, that is to which this cost can rise, so that the NPV of the project becomes zero, is approximately 43%. However, traffic forecasts are inherently more speculative. In this study, approximately 90% of the benefit arose from traffic diverted from the old road. If the initial traffic diversion to the proposed highway (or the rate of traffic growth) is less than estimated (so that the benefit is 25% lower), the NPV would be reduced from RM469.3 million to approximately negative RM145.4 million, which is still substantial. The switching value for the benefits is approximately 36%.

If the project capital cost is 25% higher, and the benefit is 25% lower than estimated, the project's NPV is still RM54.1 million; and the rate of return still exceeds 12%. Under these circumstances, the project is still well-justified.

Table 8 shows that NPV in revenue exceeds NPV in costs by negative (-ve) RM239.6 million over a period of 22 years. This means the existing toll rate is insufficient; unless capital costs are reduced by at least 25%. However, the revenue is very much affected by traffic levels, which have been forecast to increase between 4

TABLE 7
Calculated revenue, based on traffic volume with a fixed toll rate (in Ringgit Malaysia, RM)

Year	Average No. of vehicles daily	Revenue collected from tolls during this period (No. of vehicles x days x years x toll rate)
2004-2005	118,500	118,000 x 365 x 2 x 3.00 = 258,420,000
2006-2010	138,000	138,000 x 365 x 5 x 3.00 = 755,600,000
2011-2015	156,000	156,500 x 365 x 5 x 3.00 = 856,800,000
2016-2020	172,000	172,000 x 365 x 5 x 3.00 = 944,400,000
2021-2025	191,000	191,000 x 365 x 5 x 3.00 = 1,045,800,000
TOTAL		RM 3, 861, 440, 000

to 5% annually. An increase of 4 to 5% is indeed a very low percentage for a country like Malaysia, where economic growth is between 5 to 8%. Hence, it is more sensible to forecast increased traffic levels between 10 and 12% annually. In other words, the revenue will rise by almost double, i.e. from RM969.80 million to RM 2000 million. The project will certainly now be well-justified with these newly forecasted traffic levels.

However, operating costs are expected to rise gradually alongside the growth of traffic. Furthermore, recurrent costs are estimated to increase by approximately 10% annually. In addition, there is a possibility of salary increases because of the shadow price for labour, which is likely to increase over time. However, in calculating NPV for costs and revenue, the increase in toll rate during the concession period was neglected. The reason for this was to see to what extent the present toll rate could be used to sustain profitable operations, should there be no future rise in toll charges in; though in

reality, toll rates would definitely increase.

Scenario-based solutions between public, public-private partnership, and the private finance initiative are:

There are three scenarios (AASHTO, 2011):

- Public finance initiative – no toll charges being imposed.
- Public-private partnership initiative - toll charges are decided by the government.
- Private finance initiative – toll charges are decided by private investors.

SCENARIO 1: PUBLIC FINANCE INITIATIVE

The capital cost is estimated to be RM1229 million. Maintenance and operating costs are estimated at RM10.6 million annually, with an additional cost of RM20 million every sixth year for major repaving works. Since the project will be carried out solely by the government, it is expected that the interest rate will be very low. Hence, a discounted rate of 12% was adopted. Project

TABLE 8

A comparison of the associated costs and revenue (in Ringgit Malaysia, RM; million)

Concession period		Associated costs		Total costs	Toll revenue	Net Present Value discounted at 12%	
Year (1)	Period (2)	Capital Costs (3)	Recurrent Costs (4)	Total Cost (5)	Benefits (6)	Costs (7)	Benefits (8)
0	2000	410	0	410.0	0	410.0	0
1	2001	600	0	610.	0	535.7	0
2	2002	220	0	220.0	0	175.4	0
3-4	2003-2004	0	21.4	21.4	258.84	14.50	184.20
4-10	2004-2010	0	77.0	77.0	755.60	34.10	341.80
11-15	1011-2015	0	82.4	82.4	856.80	19.20	219.92
16-20	2016-2020	0	68.4	68.4	944.40	10.00	137.54
21-2	2021-2024	0	95.0	95.0	1045.8	8.30	86.42
Total						1209.4	969.80

Note: Net Present Value equals -ve RM239.6 million; this is the difference between columns 8 & 7

costs have to be reasonable since no toll would be imposed on the user. Therefore, the budget must be monitored closely to ensure that the costs do not exceed the benefits (World Economic Forum, 2011).

Expected cost-effectiveness results

- i. Project Net Present Value (NPV) = RM469.3 million
- ii. Project Cost : Benefit Ratio: 1: 1.39
- iii. If the capital cost of the project is 25% higher than estimated, the NPV of the project is still RM195.5 million.
- iv. The switching value for capital cost so that the NPV of the project becomes zero, is approximately 43%.
- v. If the benefits are 25% lower, the NPV is reduced from RM469.3 million to approximately RM145.4. The switching value for benefits is approximately 36%.
- vi. If the project capital cost is 26% higher and the benefits are 25% lower than estimated, the project NPV is RM54.1 million, which is still well justified.

The project has a high net worth, and it is not particularly sensitive to changes in any single factor (World Economic Forum, 2010). Apart from this, the project is well-justified (even though no toll will be imposed on the user). The benefits gained from a reduction in vehicle operating costs, which exceed the project costs, prove that the project is viable (PcW, September 2010). However, the discounted rate must be within 12% for the project to be justified. This should not be a problem as the government normally obtains its funds through taxation

or from bank loans, at below-market rates. Furthermore, funds obtained from foreign aid sources frequently carry interest rates substantially below the opportunity cost of capital; especially for developing countries (World Economic Forum, 2011).

SCENARIO 2: PUBLIC-PRIVATE PARTNERSHIP FINANCE INITIATIVE

This scheme is jointly funded by public and private initiatives using the Built Transfer and Operate (BTO) concept. Since public funds are involved, the capital cost in the partnership scheme will normally increase by 25% from the estimated cost of RM1230 million to a new value of RM1537.5 million. Support such investment funds will be made available to the private sector at rates below the current interest rate. This is guaranteed by the government. As a result, the discounted rate (which is a major determinant of the cost-benefit comparison) is set at 12%. The government has a say in deciding toll rates, and therefore, they can be fixed at RM 3.00 per 25km (or RM 0.12 per km). The revenue collected from toll charges is shared with the concessionaire at a ratio of 40/60 for the first year, 50/50 for the second year, 60/40 for the third year, and so on, until the end of the concession period. The ownership rights of the highway, and all ancillary structures, revert back to the government after the concession period has expired.

Expected cost effectiveness results

- i. The Net Present Value (NPV) of the project, at a discounted rate of 12%

= RM 1159.5 million, and at a 20% discounted rate = negative (-) RM 83.4 million

- ii. Project Cost : Benefit ratio = 1: 1.78
- iii. If the capital cost of the project is 25% higher than estimated, then the NPV capital cost at 12% is RM816.3 million
- iv. Switching value for capital cost, that is the extent to which these costs can rise, so that the Net Present Worth of the project becomes zero, is deemed to be 84%
- v. If the toll rate is reduced so that the benefits are 25% lower, the NPV capital cost becomes RM497.0 million and the switching value for benefits is 43%.
- vi. If the capital costs are 25% higher and the benefits are 25% less than estimated, the Net Present Worth of the project is equal to RM153.8 million

In other words, an increase in the capital cost brings a positive NPV value; in terms of costs versus benefits. Toll rates that are setup by the government are high enough to increase the total net worth benefits, even though the capital costs have increased by 25%. Nevertheless, should the discounted rate be set at 20%, the costs will exceed the benefits, which indirectly shows us that without the government's support in giving low interest rates, the project will not be justified. In addition, in BTO projects, the private sector normally wishes to recover the investment capital as soon as possible (Eddington Transport Study, 2006). For instance, the completion of the Second Expressway System BTO project in

Bangkok ended in a disaster for Kumagai Gumi. One source indicated that the Thai government seized the expressway's assets over a dispute in the amount of toll to be levied (PwC, June 2010).

SCENARIO 3: PRIVATE FINANCE INITIATIVE

Projects funded by private initiatives may reduce capital costs by a substantial amount (PwC, April, 2011). Normally, a shorter time is needed to complete such a project. With a skilled workforce and longer working-time, the duration to complete a project is shortened; therefore, the overhead expenses are reduced. Capital cost decreases to as low as 25 % from the estimated costs. As a result, the maintenance and operating costs are also reduced by approximately 20%. However, since money has to be borrowed from banks, the interest rate for the borrowed capital is much higher. In this setup, it is assumed that the project will not get any help from the government. Therefore, in order to recover the investment capital, the private consortium must set the toll-rate to recover the project's costs within 30 years.

Expected cost-effectiveness results

- i. Project Net Present Value at a discounted rate of 20% = RM334.7 million
- ii. The Cost : Benefit Ratio is 1: 1.40
- iii. If the capital cost of the project is 25% higher than estimated, then the new NPV project cost will stand at 43%.
- iv. If the toll rate is increased so that the benefits are 25% higher, then the NPV of the project will now be 188%.

- v. If the capital cost is 25% higher and the benefits are also 25% higher than estimated, the NPV of the project is equal to RM448.75 million.

The toll rate proposed in Scenario 3 is 20% lower than that of Scenarios 1 and 2, i.e., reduced from RM0.12 per km to RM 0.096 per km. However, the discounted rate is higher at 20%. This is because the concession company has to bear all of the costs of construction and related risks. Despite this drawback, the concession company is still able to make substantial returns, with a profitable net worth of RM334.7 million. This is most likely attributed to the significant reduction in capital and maintenance costs to as low as 25% and 29%, respectively. In order for the above conditions to be met, the project must be completed within a stipulated period of time. The works programmed must be strictly adhered to in order to avoid additional costs. This schedule can be built by a private sector that has extensive experience and a skilled workforce. The most important conclusion to draw here is that the private sector is able to operate the proposed expressway profitably, even at a lower toll rate. If toll revenue is collected based on a rate of RM0.096 per km, the concession company will only be able to recover their initial capital costs after 14 years of operation. Therefore, the estimation of project costs must be accurate as it has a significant impact on the overall end-return of the revenue collected. In a way, this scheme is more cost-effective and attractive than the one presented in Scenarios 1 and 2,

with regards to the following:

- A lower toll rate that will benefit both the users and the government.
- The project is fully financed by the concession company.
- There is still a good return, even with a higher loan interest rate.

HIGHWAY INVESTMENT AND BENEFITS TO ECONOMIC DEVELOPMENT

Highway projects must be evaluated in a greater context of the nation's economic development. Whether the funding structure is financed by the public or private sector, a good highway improves business efficiency through time savings and lower operating costs. It also increases employment opportunities by providing market flexibility and job accessibility. An enhanced transportation infrastructure also fosters competition by providing easier access to new markets. Additionally, good highway networks attract international trade and investment and subsequently increase domestic mobile activities. Through guidance from these benefits, the government should be able to set infrastructure investment policies and social considerations, to aid highway investment decision-making.

CONCLUSION

Toll highways in Malaysia have been privatised since 1988. Except for two that are directly run by government corporations and one by the city of Kuala Lumpur

itself, all are run privately under BOT concession systems. The 847.7 km North South highway, the 48 km central link to the North South highway, and five other highways totalling 149.9 km were run by concessionaires, as of 31 December 1997. Projek Lebuhraya Utara-Selatan Bhd. (PLUS) holds exclusive concession rights to the North South highway. This massive concessionaire and several smaller concessionaires run the toll highways in Malaysia, giving us a similar situation to that of Italy.

All toll highways are managed by Malaysia Highway Authority (MHA). MHA initially started as a toll highway operator. After undergoing an organizational change, under the national policy to privatise all toll highways, it now undertakes land expropriation and supervises concessions from planning through to construction, whilst forming and evaluating related technical standards.

Financial analysis indicates that capital costs are high. The forecasted traffic levels are low, if the calculation is based on a 4 to 5% growth. The growth of the number of vehicles in Malaysia has to be around 10 to 12% for the returns to be good over a relatively long period of time. Even though financial returns are generally good, investment in highway projects is still considered to be high risk, and thus, giving investors many unforeseen circumstances (High, 2008). Since revenue depends greatly on forecasted traffic levels, it is likely that the government will give guarantees, should low levels of traffic not be able to generate

sufficient revenue to cover operating and capital costs. However, under the concession agreement, the private operator is free to raise toll rates to achieving traffic levels above the traffic threshold. On the contrary, if the traffic levels fall below the traffic threshold and the toll rate is above the toll threshold, a penalty will be applied.

Key drivers for the involvement of private finance or public-private partnership initiatives to build a highway are as follows:

- Enhance the transportation infrastructure, which is desired to stimulate economic activity.
- More convenient and easy access nationwide.
- Shorter and more predictable journey times, reduced wear and tear on motor vehicles, and reduced fuel consumption by road users.
- Law enforcement and improved road safety benefits like breakdown and recovery assistance, ambulance services, customers call centres, etc.

In summary, no matter what the reasons are, highway investment policy in Malaysia has to take into account long-term economic, social, and environmental implications.

CONCLUDING REMARKS

In Malaysia, most toll highway concessionaires are semi-public organizations, with 100% private companies being the second most common form. Despite their name, “semi-public” companies are seldom owned 50/50 by

the government and other private interests. They are either primarily government or private. Malaysia has a vast experience in toll highway operations and out of necessity, it has undergone several reorganizations of its concessionaires. A major reason for this is that the business environment for each toll highway is unique (this includes traffic flow and construction costs) and profitability varies widely.

REFERENCES

- AASHTO Centre for Excellence in Project Finance. (2011). *The Forum on Funding and Financing Solutions for Surface Transportation in the Coming Decade: Conference*.
- Department of Statistics, Malaysia (2009).
- Ervina Alfian. (2010). The Malaysian Public-Private Partnership (PPP): *Financing Talled Highway Projects*, 3(2), 121-143.
- Expressway System. Retrieved April 1, 2010, from http://en.wikipedia.org/wiki/Malaysian_Expressway_System.
- Farid Ezanee. (2010). Operational Risks for Highway Projects in Malaysia. *International Journal of Human and Social Sciences*, 5. Retrieved on June 21, 2012, from <http://www.waset.org/journals/ijhss/v5/v5-1-4.pdf>.
- Global Economics Research*. Retrieved April 6, 2010, from <http://www.tradingeconomics.com/Economics/GDP-Growth.aspx?symbol=MYR>.
- High, R. (2008). *International Construction*, June 30. Retrieved July 1, 2011, from <http://www.khl.com/agazines/international-construction/detail/items25939>.
- Hochan, K., Youjin, S., Seungyoung, K., & Sungmo, R. (2009). Establishment of Influence Area using Select Link Analysis for Highway Investment Projects. *Journal of the Eastern Asia Society for Transportation Studies*, 8. Retrieved on June 21, 2012, from http://www.easts.info/publications/journal_proceedings/journal2010/100363.pdf.
- Invest in Malaysia*. Retrieved on April 6, 2010, from http://www.mida.gov.my/en_v2/index.php?page=invest-in-Malaysia.
- Ikechukwu, I. C., & Xiaolin, X. (2012). Public-Private Partnerships: The Underlining Principles of Infrastructure Investment, Finance, and Development Projects. *International Journal of Business and Management*, 7. Retrieved on June 21, 2012, from <http://dx.doi.org/10.5539/ijbm.v7n1p109>.
- Ministry of Works, Malaysia. (2010).
- Ministry of Works, Malaysia. (2012).
- PricewaterhouseCoopers, Cities of Opportunity. (2010).
- PwC, Game On: Mega-Event Infrastructure Opportunities. (2011).
- PwC, Public-Private Partnerships: The US Perspective. (2010).
- PwC, Survey and Analysis of Transportation Investment Models in Other Countries. (2010).
- Services Development Division, Ministry of International Trade and Industry (MITI) Malaysia. (2007). *Trade and Transport Facilitation: The Malaysian Experience and Milestones*.
- Sheila, F. (1994) *Financing Transport Infrastructure: A compilation of major papers selected from PTRC's Summer Annual Meeting and Conferences*.
- Sidney, M. L. (1995). *Build, Operate, Transfer; Paving the Way for Tomorrow's Infrastructure* (pp. 25-46). John Wiley & Sons, Inc.
- Kent, S. (2008, December). Passing the Torch. *PM Network*.

- The Eddington Transport Study: The Case for Action (2006).
- The Ministry of Works Malaysia. (2010). Retrieved on July 1, 2011, from
- World Economic Forum. (2010). Global Risks 2020. *A Global Risk Network Report*.
- World Economic Forum. (2010). *The Global Competitiveness Report, 2011-2012*.



The Moderating Role of Influence Tactics on Cultural Intelligence and Expatriate Success

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ABSTRACT

As a result of globalization, expatriate numbers have increased significantly, making expatriation failure one of the top concerns of International Human Resource Managers to curb. This study looks at the potential of using Cultural Intelligence and Influence Tactics in explaining expatriate success. Eighty three expatriates, mainly from Singapore, Thailand, Philippines, Indonesia, Japan, and Korea, working with a US-based MNC in the Klang Valley, Malaysia, participated in this study. At least four interesting findings were discovered: First, evidence that expatriates that are culturally intelligent in motivational and behavioural aspects, tended to perform better in their work; Second, high CQ expatriates, who used more Upward Appeal influence tactic, seemed to achieve lower Job Performance; Third, expatriates, who were culturally intelligent motivationally, were found to adjust to Malaysia more effectively. Finally, those high CQ expatriates who used more Rational Persuasion Influence Tactics adjusted to work and social life better in Malaysia.

Keywords: Cultural intelligence, expatriate success, influence tactics, job performance, adjustment

INTRODUCTION

Due to a lack of research on expatriate management since the 1980s, expatriate failure issues have not been successfully addressed (Collings, Scullion, & Morley, 2007). Factors reported as being responsible

for assignment failures included spouse/partner dissatisfaction, inability to adapt, other family concerns, poor candidate selection, poor Job Performance, and jobs not meeting expectations (Global Relocation Trend, 2010). These failure factors could be due to improper pre-departure training and selection processes. In fact, only a small number of respondent companies (33%) admitted having a proper expatriate management programme, as reported by

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Global Relocation Trend (GRT, 2010).

Other predictors of expatriate success noted in the literature include pre-departure training (e.g., McCabe, 1993; Tucker, Bonial, & Lahti, 2004), previous overseas experiences (e.g., Crown, 2008), personal fit (Jun & Gentry, 2005), organizational selection tools (Cheng & Lin, 2009; Johnson, Lenartowicz, & Apud, 2006; McCabe, 1993), and individual skills (Ang, Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007; Tucker *et al.*, 2004). Even though Cultural Intelligence and Influence Tactics have separately been found to bring about positive results in the workplace or adjustment, their joint potential in cross-cultural research has not been explored. This paper intends to close this gap in the literature.

THEORETICAL REVIEW

As explained by previous researchers (see McGinley, 2008; Okpara & Kabongo, 2011), there are significant economic and social costs associated with expatriates' adjustment failure. McGinley (2008) defines expatriate failure as the inability to perform effectively, resulting in either being fired or recalled home, including those who return from overseas assignments prematurely and those who subsequently leave the company upon completion of their assignment. McGinley (2008) estimated that expatriate failure rates ranged from 25 to 70%, which is higher than that predicted by Brookfield Global Relocation Services of 7 to 17% (GRT, 2010). This was probably due to the differences in the definition of failure. Both

ranges of percentage are alarming as they significantly increased both tangible (e.g., financial) and intangible (e.g., low moral) costs to MNCs. As a result, expatriate management research continues to receive increasing attention to address the issue (e.g., Okpara & Kabongo, 2011).

In the efforts to combat expatriate failure issues, various expatriate management models have been proposed. First, Jun and Gentry (2005) used cultural similarity and personal fit in their model and measured expatriate success using a Job Performance indicator. They found that cultural similarity between home and host country did not predict Job Performance, while personal fit did. Second, Collings *et al.* (2007) called for an alternative assessment of expatriate research, since new forms of international assignments such as short-term assignments, commuter assignments, international business travel and virtual assignment had emerged. They proposed that a more holistic model should be introduced. Third, Ang *et al.* (2007) empirically tested a model including multiple categories of predictors such as demographics, personalities, emotional intelligence, and cultural intelligence to predict expatriate success. They empirically showed that besides having job-related technical skills, expatriates needed CQ skills to succeed in overseas assignments.

Numerous subsequent studies validated CQ's relevance in international business research (Elenkov & Manev, 2009; Dagher, 2010; Imai & Gelfand, 2010). Elenkov and Manev (2009) used CQ to study how expatriate's leadership style and CQ

interacted to predict senior expatriate's success in achieving organization outcomes. They found that CQ moderated the relationship between leadership traits and Organizational Innovations. Dagher (2010) surveyed Arab expatriates and validated CQ's applicability in explaining expatriate adjustment level. Similarly, Imai and Gelfand (2010) reported that CQ effectively explained the variation in negotiation strategy used by their subjects. Meanwhile, CQ seems to evolve as central antecedents to understand international business phenomenon, especially in the expatriate area. Thus, the present study continues to capitalize on CQ's ability, and uses it as the main predictor in this study.

CQ was popularized by Early and colleagues (Early, 2002; Early & Ang, 2003; Early, Ang, & Tan, 2006) and has been used by many subsequent researchers (e.g., Templer *et al.*, 2006; Crowne, 2008), where it measures a person's capability to adapt to new cultural contexts effectively. Early and Ang (2003) conceptualized CQ into four components; namely, meta-cognition, cognition, motivation, and behaviour. Numerous empirical evidence have confirmed this 4-component conception of CQ, including those of Dagher (2010) and Imai and Gelfand (2010). Dagher (2010) assessed two aspects of CQ to understand the three dimensions of Cross Cultural Adjustment, using an Arab expatriate sample and found support for a four-factor structure of the CQ construct. Also, the Motivational aspect of CQ was found to predict all the three dimensions of adjustments -

General, Interaction, and Work, while the Behavioural aspect of CQ only predicted the first two dimensions of Adjustments (i.e., General and Interaction). Imai and Gelfand (2010) used CQ to understand intercultural negotiation processes and outcomes, while controlling emotional intelligence. They found that CQ did indeed influence negotiation strategy, and in more specific, motivational CQ strongly drove the tendency of adopting effective negotiation strategies such as cooperatives and epistemics. The four dimensions of CQ were defined by Early and colleagues (Early, 2002; Early & Ang, 2003; Early *et al.*, 2006), and are elaborated below.

META-COGNITIVE CQ

Meta-cognitive (Ang *et al.*, 2006, 2007) intelligence is the capability to control cognition in the process of individuals acquiring and understanding knowledge on culture. Meta-cognitive CQ is analogous to the mind of individuals and measures the individuals' ability to make sense of their inter-cultural experiences. This includes their ability to see beyond cultural similarities and differences and pick up cultural cues immediately. It occurs when judgments are made about their own thought processes and also those of others, and it then adjusts their mental maps when actual experiences differ from the individuals' expectations, strategizing future inter-cultural encounters, as well as checking on the home and host's assumptions during the intercultural encounter (Ang *et al.*, 2006).

COGNITIVE CQ

Cognitive CQ (Ang *et al.*, 2006, 2007; Ward *et al.*, 2009) captures the knowledge structures of a specific foreign country in terms of their norms, practices, conventions, economic, legal, and social systems (Triandis, 1994). This aspect of knowledge and understanding on a specific host country's culture helps individuals to look at the 'big picture' and appreciate cultural differences at a higher level, and thus, making individuals more receptive to the host culture and promote a greater cultural openness. It also allows individuals to manoeuvre within a host country, with some level of confidence that they may not make big cultural blunders. This also likely leads to the promotion of cross-cultural understandings and respect (Brislin *et al.*, 2006).

MOTIVATIONAL CQ

While cognitive CQ refers to a person's knowledge of other cultures' ways of doing things, motivational CQ refers to the person's curiosity and interest to learn the host culture's ways of doing things. Motivational CQ is said to influence individuals' belief in their capabilities to understand people from different cultures (Early *et al.*, 2006). It captures the individuals' extent of interest and drives to test one's potential in a new and diverse culture. In more specific, Motivational CQ is defined as the magnitude (Ang *et al.*, 2007; Ward, Fischer, Lam, & Hall, 2009) and direction of energy that is being applied towards learning about, and functioning in, cross-cultural situations. The driving force

behind Motivational CQ factor includes the intrinsic reward that the individual expected to earn from culturally diverse interactions such as a sense of fulfilment at successfully handling cross-cultural challenges. This then increases their sense of confidence in cross-cultural settings and encourages them to continue experimenting for more fulfilling experiences.

BEHAVIOURAL CQ

Behavioural CQ is defined as an explicit display of actions (Sternberg, 1986), which includes the capability to interact with people from different cultural backgrounds using verbal and non-verbal behaviours effectively (Early *et al.*, 2006). The Behavioural CQ component is needed to complement mental capabilities captured by meta-cognitive, cognitive, and motivational aspects (Hall, 1959). Individuals with high Behavioural CQ are flexible in their behaviour and more effective at portraying positive impressions like using culturally acceptable words, tones, gestures, and facial expressions (Gudykunst, Ting-Toomey, & Chua, 1988). Those with high Behavioural CQ are able to mimic locals' accents, gestures, eating habits, etc., and thus, they blend more effectively with them.

CULTURAL INTELLIGENCE AND JOB PERFORMANCE

Mol, Born, Willemsen, and Van Der Molen (2005) suggest that cultural sensitivity skill, which is captured by CQ measure, has a positive relationship with Job Performance. Within a home country, Alon and Higgins

(2005) suggested that the emotional intelligence of leaders influences their behaviours, which then affects their success. Outside of the home country, in order to perform well in a foreign culture, one would need to adjust and react effectively according to host cultural expectations, and thus, CQ is needed to bring about Job Performance (Ang *et al.*, 2007). People who are culturally intelligent expect a certain degree of misunderstanding in cross-cultural encounters; and therefore, allow themselves some learning time to understand the new settings better, and be able to meet expectations at work more accurately (Brislin *et al.*, 2006).

Although the researchers expected all four aspects of CQ to predict task performance positively, only two CQ components (metacognition and behavioural) were found to empirically support this contention (Ang *et al.*, 2007; Templer, Tay, & Chandrasekar, 2006). It was explained that the job structure of the respondents in their studies were very well structured and specific, resulting in very little room for cross-cultural misunderstandings on work-related issues. This renders cognitive and motivational CQ irrelevant in the context of respondents working in a technical-related industry.

Cultural values are said to influence role expectations. Thus, with a higher level of metacognitive cultural intelligence (CQ) that stresses awareness on role expectation differences, one would be able to apply their cultural knowledge in a more appropriate manner (Templer *et al.*, 2006);

thus, resulting in higher performances. However, high behavioural CQ helps expatriates to perform better at work, and this is due to their ability to develop close relationships with locals via mimicking (e.g., using similar non-verbal language), and therefore, were given necessary support to get their jobs done. This is especially true in a Malaysian context, as Malaysians are generally relationship-oriented (high in the Femininity Index), as reported by Hofstede (1980). Since this study employed expatriate respondents working in an information technology firm, in technical positions with detailed job descriptions, the same CQ aspects (metacognitive and behavioural) found by Ang *et al.* (2007) are expected to predict Job Performance. Thus, two hypotheses were developed, as follows:

H1a: There is a positive relationship between meta-cognitive CQ and Job Performance

H1b: There is a positive relationship between behavioural CQ and Job Performance

CULTURAL INTELLIGENCE AND ADJUSTMENT LEVEL

Some measure expatriate effectiveness/success through Job Performance, while others use indicators like cross-cultural adjustment (e.g., Dagher, 2010; Okpara & Kabongo, 2011). Cross-cultural adjustment refers to the ability to adjust to a host country's environment, and socio-cultural and work aspects, which enables expatriates to experience satisfaction and a sense of acceptance from the host nationals; and

therefore, allows them to function in daily activities without severe impairments (Okpara & Kabongo, 2011). Or, it can also be understood as “the individual’s affective psychological response to the new environment” (Black & Mendenhall, 1990, p. 122) that requires expatriates’ to process unfamiliar cues.

Cross-cultural adjustment is generally agreed as being a multidimensional construct. However, the proposed dimensions vary from two to six. First, Ward and Kennedy (1993) divided intercultural adjustment into two levels, namely, psychological adjustment and socio-cultural adjustment, where “psychological adjustment is interwoven with stress and coping processes, and socio-cultural adaptation is predicated on culture learning” (Ward & Kennedy, 1993, p. 222). Similarly, Selmer (1999) used the same two dimensions to understand the coping strategies adopted by Western expatriates in China. Second, a three-dimension cross-cultural adjustment was conceptualized by Black (1988) and has been used by many (e.g., Dagher, 2010; Okpara & Kabongo, 2011; Selmer & Luring, 2009). These dimensions are Work, Interaction, and General Adjustments. Work adjustment relates to the adjustment to job responsibilities, supervision, and performance expectations. Interaction adjustment concerns with adjustment to socializing and communicating with the host people, while general adjustment refers to the adjustment to the daily life domain such as housing, food, and shopping. Despite its popularity, Black’s (1988) conception

was said to inherit flaws, which include being merely a statistical construct with elements that are not well-defined or discrete (Selmer & Luring, 2009). Finally, Tucker *et al.* (2004) developed a six-factor adjustment construct, capturing Acceptance, Knowledge, Affect, Lifestyle, Interaction, and Communication components.

However, psychology literature captured adjustment level through impairment aspects like problematic responses to intercultural stress such as emotional distress and anxiety, depression and difficult interpersonal relations (Bock, 1970; Savicki, Downing-Burnettea, Hellerb, Binderb, & Suntingerb, 2004). For example, Bock (1970) defines the cross-cultural adjustment concept as being the inverse of culture shock that measures individual’s inability to understand, control, and predict the behaviour of others in a foreign culture (Bock, 1970). This line of thought coincides with the impairment scale developed by Mundt, Marks, Shear, & Greist (2002), which measures adjustment as the extent of impairment to function effectively on a day to day basis. Although this measure has not yet been used in expatriate research, the impairment method of adjustment level seems appropriate to apply in an expatriate context as it holistically measures the survivability of expatriates. Thus, this study uses the psychology measure to capture cross-cultural adjustment in an expatriate context, where adjustment is defined as the extent to which expatriates are able to function on daily basis in the host country, without severe impairments.

Hofstede and Hofstede (2005) indicated

that acculturative (which is very close to adjustment) stress affects expatriates when they are forcibly exposed to, and are expected to comply with, foreign cultural practices. Similar adjustment stress was also elaborated by Selmer (1999) whose study investigated the coping strategies used by Western expatriate managers in China to assess how this mechanism was employed by expatriates to cope with and affect their socio-cultural and psychological adjustment. Selmer (1999) reported that expatriates, who adjust effectively in a new environment, feel that they are able to manage work demands and interact effectively with host country nationals.

CQ generally captures a person's cultural skill in meta-cognitive, cognitive, motivational, and behavioural aspects. Thus, CQ should logically impact adjustments positively. However, some components of CQ were said to more effectively predict adjustment than others. For example, Ang *et al.* (2007) found that only Motivational and Behavioural CQ positively predicted Adjustment (interactional and work adjustment). Similar results were also reported by Dagher (2010). High Behavioural CQ is associated with better adjustment, as the individual has the ability to adjust verbally and non verbally to host cultures (Ang *et al.*, 2007). Similarly, Motivational CQ drives persistent learning and experimentation with a host culture, with a belief in their ability to overcome cultural obstacles and finally win the hearts of locals, assists expatriates to adjust themselves better in a culturally

diverse environment (Templer *et al.*, 2006). Therefore, these two components of CQ are predicted to positively affect the adjustment of expatriates in Malaysia in a similar way.

H2a: There is a positive relationship between motivational CQ and adjustment level.

H2b: There is a positive relationship between behavioural CQ and adjustment level.

INFLUENCE TACTICS AND JOB PERFORMANCE

Influence is used by managers to get things done through people since workers needed to be motivated through the use of influence (Daft, 2010). This construct was not explicitly conceptualized until the 1980s, when Kipnis *et al.* (1980) proposed seven strategies of influence from their seminal work. Kipnis *et al.* (1980) asked managers to explain the strategies that they used to change the behaviours of people at work; either subordinates, peers, or superiors, and translated these strategies into a questionnaire to understand the frequency of managers using those influence strategies. They found seven dimensions of influence strategies, namely, Reasoning, Friendliness, Coalition, Bargaining, Assertiveness, Higher authority, and Sanctions. They argued that these seven strategy dimensions were more comprehensive than influence classification, based on the power-based theory, which only covered the five dimensions of Rewards, Coercion, Legitimate, Referent, and Expert.

Subsequently, Yukl *et al.* (Fu & Yukl, 2000; Yukl, 1998; Yukl & Tracey,

1992) converted these influence strategy questionnaires into a scenario format to reduce the items' abstraction. Based on five scenarios of task-related requests and two scenarios of personal benefit requests, Fu and Yukl (2000) uncovered 11 influence tactic options, namely, Rational persuasion, Exchange, Coalition, Upward Appeals, Ingratiation, Pressure, Consultation, Inspirational appeals, Personal appeals, Gift giving and Informal. The last two tactics (Gift giving and Informal) were created as a result of focus group suggestions from Chinese Nationals, while the other nine were identified from the Western samples of earlier studies by Fu and Yukl (2000).

In a different study, Branzei (2002) included nine Influence Tactics and compared Influence Tactics usage differences across three countries (i.e., United States, Romania, and Japan). Eight of their tactics are similar to those of Fu and Yukl (2000) and one is

dissimilar (Legitimation). In a more recent study, Fu *et al.* (2004) used a slightly different set of 11 tactics in their paper, with two new tactics (persistence and socializing). In conclusion, influence tactic categories introduced into literature seem to change or adapt according to the research issue. A total of 10 Influence Tactics were found to consistently appear in the literature (as summarized in Table 1).

Influence Tactics can be defined as individuals' perceived effective strategies to sell their ideas, gain acceptance of their policies, and motivate others to implement their decisions (Fu & Yukl, 2000). Thus, Influence Tactics are performed to get others to do things such as execute orders, carry out requests, complete tasks, and support proposals (Berson & Sosik, 2007). It is therefore a goal-directed behaviour that individual's use to obtain the desired outcomes (Castro *et al.*, 2003). Influence is

TABLE 1
Influence Tactics

1 Exchanges	offering an exchange of favors or reciprocations at a later time or a promise in terms of benefit sharing upon task completion.
2 Rational Persuasion	presenting a set of logical arguments and factual evidence using expert power.
3 Upward Appeal	involving higher authority to get the target to comply.
4 Gift Giving	providing gifts or personal favors before influencing the target to comply.
5 Helpful	providing constructive suggestions on career development and opportunity of interest to target
6 Pressure	resorting to the use of demands, threats, or persistent reminders to influence a target.
7 Consultation	seeking the participation of target in the planning stage to include the target's concerns or suggestions.
8 Ingratiation	enhancing the mood of the target by expressing confidence in target or assisting the target to believe that the agent thinks of the target favorably and positively before proceeding to ask for a task to be done.
9 Coalition	involving other parties to persuade the target to comply.
10 Informal	inviting the target out for a discussion while having an activity that is not related to work or visiting the target in a place that is outside the workplace.

the essence of leadership (Yukl, 1998), in that its use needs to be consistent with social norms and context expectation (Yukl, Falbe, & Youn, 1993), where the use of appropriate Influence Tactics in a host country would result in a higher expatriation success.

Previous research (Fu & Yukl, 2000; Branzei, 2002; Castro *et al.*, 2003) demonstrated empirically how the use of Influence Tactics created an impact on Job Performance. First, Castro *et al.* (2003) using a U.S. sample, found that females who used more Upward Appeals and Coalitions Influence Tactics, tended to receive higher Job Performance ratings. However, a similar pattern was not found in the male sample. Second, more attention to Influence Tactics has been suggested for cross-cultural research as differences in culture (i.e., differing values and ways of doing things), which spells out different sets of acceptable Influence Tactics, implying that Influence Tactics' influence on Job Performance also differs accordingly to country (Howell & Higgins, 1990). Similarly, Smith and Peterson (1988) identified the ability to understand cultural differences and the ability to use influence in a foreign culture as the two most important competencies that a global manager must possess to be successful in an international arena. Expatriates experiencing cultural differences when moving to a host country for job assignments may have problems influencing locals to get jobs done, as Influence Tactics that are effective at home may not be effective in a foreign land.

Third, Fu and Yukl (2000) reported that American managers preferred using rational persuasion, consultation, or exchange, while Chinese managers preferred using coalition, Upward Appeal, Giving Gifts, and personal appeal. They proposed that those who selected Influence Tactics (IT) that are best suited to their organization or national values are more effective within their organization. This implies that knowledge of Influence Tactics complement by cultural skills result in greater expatriate success. Thus, it is proposed that those with high CQ coupled with the use of "best-suited" Influence Tactics, or the avoidance of certain "ill-fitted" Influence Tactics, are more successful in international assignments. In other words, IT moderates the relationship between CQ and expatriate success in Job Performance and adjustment:

H3a: Influence Tactics moderate the effect that CQ has on Job Performance

H3b: Influence Tactics moderate the effect that Motivational CQ has on Adjustment level

DATA COLLECTION

In 2010, one hundred and thirty questionnaires were distributed to expatriate respondents working in an American-based MNC located in Malaysia. A total of 110 questionnaires were returned, generating a response rate of 85%. However, only 83 of them were usable and included in the analysis.

MEASURES

Four measurement scales were included in this study to measure CQ, Job Performance, Adjustment, and Influence Tactics. First, CQ was measured using a 20-item scale, developed by Early *et al.* (Ang *et al.*, 2007; Early, 2002; Early & Ang, 2003), where a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) was used. Four components of CQ were measured; Meta-cognitive CQ (e.g., “I am conscious of the cultural knowledge that I use when interacting with people from different cultural backgrounds”), Cognitive CQ (e.g., “I know the legal and economic systems of other cultures”), Motivational CQ (e.g., “I enjoy interacting with people from different cultures”), and Behavioural CQ (e.g., “I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction requires it”).

Second, Job Performance was measured using a 6-item scale, developed by Babin and Boles (1998), based on a similar 5-point Likert scale. The sample items were “I am a top performer” and “I get along better with customers.” Third, Adjustment was measured using WSAS (Work and Social Adjustment Scale) developed by Mundt, Marks, Shear, and Greist (2002). It consisted of 5 items, where respondents were asked to rate each statement using a 9-point Likert scale, ranging from 0 (No Impairment) to 8 (Severe Impairment). It also covers adjustments to work ability, home management, social, private activities, and personal relationships. A sample item was “Because of my inability to adjust to

the current culture, my ability to work is impaired.”

Lastly, a scenario based scale, developed by Yukl *et al.* (Fu *et al.*, 2004; Fu & Yukl, 2000; Yukl & Tracey, 1992), was adopted to measure Influence Tactics in this study. Each scenario consisted of several influence tactic options, where the respondents were required to rate each tactic using a 5point Likert scale ranging from 1 (Completely Ineffective) to 5 (Very Effective). A total of seven scenarios were included in the questionnaires. For example, a scenario explains the attempt of a task assignment to a target by an agent, where the target was reluctant to accept due to overwhelming current job responsibilities. The influence tactic options listed for the respondents to rate their effectiveness are:

- Explain why the task is important for the department and organization (rational persuasion);
- Offer a financial incentive for doing the additional task (exchange);
- Get help in persuading him/her from one of his co-workers (coalition);
- Get someone with higher authority to tell him/her to do the task (Upward Appeal);
- Express confidence in his/her ability to accomplish the task successfully (ingratiation);
- Demand that he/she must do the task (pressure).

RESPONDENTS PROFILE

As shown in Table 2, approximately an equal number of male and female respondents participated in the study (52% versus 48%). The respondents were from Asian countries with a higher number from Thailand, the Philippines, and Japan (16 to 25%). Meanwhile, smaller percentages came from Korea (13%), Indonesia (10%), and Singapore (6%). The majority of the respondents were highly educated individuals (93%) with a Bachelor's Degree. A substantial number of them fell under 25-34 and 35-44 age groups (89%). Finally, most of the respondents had been working between 4 to 9 years (62%).

RELIABILITY OF THE CONSTRUCTS

All the five items of the Adjustment scale were reverse-coded before reliability testing was performed so that a high score reflected better adjustment. Cronbach's Alpha Test for internal consistency was performed on all concepts and the results are shown in Table 3. All the Alpha values were greater than 0.6 (Nunnally, 1978), indicating an acceptable internal consistency, except for coalition and informal. As a result, they were dropped from further analysis.

Means and the correlation matrix of the variables are shown in Table 4. Adjustment was the only variable measured using a 9-point scale (after being reverse-coded, 0= Severe Impairment and 8= No Impairment),

TABLE 2
Respondents Profile

		Frequency	Percent
Gender	Male	43	52
	Female	40	48
Nationality	Singaporean	5	6
	Thais	21	25
	Philipino	15	18
	Indonesian	10	12
	Japanese	13	16
	Korean	11	13
	others	8	10
Education	High School and below	1	1
	Certification/ Diploma/Professional cert	5	6
	Bachelor Degree/ Master and above	77	93
Age	18-24	4	5
	25-34	30	38
	35-44	40	51
	45-54	4	5
	Missing	5	100
Working Experience	Below 1 year	2	2
	1-3 years	17	21
	4-6 years	24	29
	7-9 years	27	33
	10-12 years	10	12
	13-15 years	1	1
	15 years and above	2	2
TOTAL		83	100

and a mean of 5.73 seemed to suggest that on average, the expatriate respondents did not experience difficulties adjusting to Malaysian culture. Also, the respondents seemed to rate themselves above average

(i.e., greater than 3) for Job Performance. As for Influence Tactics, the most effective tactics perceived by the respondents were Rational Persuasion, Exchange, and Helpful (all about 3.8), followed by Consultation

TABLE 3
Reliability

Constructs		Cronbach's Alpha	No of Items
Influence Tactics	1.Exchange	0.71	4
	2.Rational Persuasion	0.86	8
	3.Upward Appeal	0.66	5
	4.Gift Giving	0.85	4
	5.Helpful	0.76	6
	6.Pressure	0.68	7
	7.Consultation	0.65	2
	8.Ingratiation	0.81	11
	9.Informal	0.51	3
	10.Coalition	0.46	3
Cultural Intelligence	1. MetaCognitive	0.79	4
	2. Cognitive	0.88	6
	3. Motivational	0.86	5
	4. Behavioral	0.83	5
Adjustment		0.91	5
Job performance		0.89	6

TABLE 4
Mean, Standard Deviation and inter-corelations

	Mean	SD	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Job Performance	3.90	.70	0.60**	0.36**	0.35**	-0.14	-0.30**	0.34**	0.04	0.32**	0.07	0.34**	0.57**	0.72**	0.64**
2 Adjustment (9-pt, 0-8)	5.73	1.48		0.15	0.21	-0.28**	-0.41**	0.10	-0.21	0.24*	-0.09	0.32**	0.35**	0.62**	0.50**
3 IT_Exchange	3.91	.84			0.83**	-0.08	-0.27*	0.76**	0.12	0.39**	0.33**	0.35**	0.51**	0.41**	0.31**
4 IT_RationalPersuasion	3.94	.83				-0.09	-0.30**	0.85**	0.21	0.66**	0.42**	0.44**	0.57**	0.48**	0.38**
5 IT_UpwardAppeal	2.89	.64					0.51**	0.15	0.308**	-0.11	0.47**	-0.21	-0.15	-0.21	-0.04
6 IT_Giftgiving	2.16	.96						-0.19	0.42**	0.02	0.35**	-0.39**	-0.31**	-0.26*	-0.30**
7 IT_helpful	3.88	.67							0.16	0.59**	0.52**	0.43**	0.56**	0.41**	0.35**
8 IT_Pressure	2.72	.51								0.19	0.36**	-0.16	0.25*	0.01	0.10
9 IT_consultation	3.63	.70									0.64**	0.37**	0.35**	0.47**	0.30**
10 IT_Ingratiation	3.19	.57										0.04	0.12	0.10	0.10
11 CQ_metacognitive	4.20	.60											0.52**	0.59**	0.45**
12 CQ_cognitive	3.64	.69												0.60**	0.62**
13 CQ_motivational	4.16	.65													0.62**
14 CQ_behavioral	3.84	.59													1

(3.63), and Ingratiation (3.19). Less effective Influence Tactics were Upward Appeal, Pressure, and Gift giving (less than 2.9). As for CQ, the respondents seem to score high on Metacognitive and Motivational CQ and average for Cognitive and Behavioural CQ.

HYPOTHESIS TESTING

Various analyses were performed to test the three hypotheses. First, two multiple regression analyses were performed to test H1 and H2. Then, multiple moderated hierarchical regression analyses were performed to test H3.

REGRESSION ANALYSIS OF JOB PERFORMANCE

A regression analysis was performed to understand how well various aspects of CQ explained the variance in the first indicator of expatriate success (i.e., Job Performance). Besides the four CQ components, some demographic variables (i.e., Gender, Education, Age, and Working Experience) were also entered as independent variables and Job Performance was entered as a

dependent variable. The regression equation is as follows:

$$\begin{aligned} \text{Job Performance} \\ = a + b_1 * (\text{Gender}) + b_2 * (\text{Edu}) \\ + b_3 * (\text{Age}) + b_4 * (\text{Work_Exp}) \\ + b_5 * (\text{CQ_Metacog}) + b_6 * (\text{CQ_Cog}) \\ + b_7 * (\text{CQ_Moti}) + b_8 * (\text{CQ_Beha}) \end{aligned}$$

As shown in Table 5, the regression model was found to be significant ($p < 0.01$, $F = 13.66$). The adjusted R^2 was 0.57, indicating that 57% of the variance in Job Performance was predicted by a combination of all the independent variables. On the contrary, the regression coefficient for Metacognitive CQ was -0.18 and deemed as insignificant ($p > 0.05$); thus, H1a was not supported. The regression coefficient for Behavioural CQ was positive (0.31) and deemed as significant ($p < 0.01$); thus, H1b was supported. Although not hypothesized, Motivational CQ was found to significantly predict Job Performance among the expatriates working in Malaysia, with a high regression coefficient of 0.53 ($p < 0.01$).

TABLE 5
Regression for Job Performance

Independent variables	Std Coefficient
Gender	0.13
Education	0.04
Age	0
Working Experience	0.01
CQ_Metacognitive	-0.18
CQ_Cognitive	0.12
CQ_Motivational	0.53**
CQ_Behavioral	0.31**
Adjusted R^2	0.57
F	13.66
Sig	<0.01

** $p < 0.01$, * $p < 0.05$

REGRESSION ANALYSIS OF ADJUSTMENT

Similar sets of independent variables were also entered to assess the predictive ability of the second expatriate success indicator (i.e., Adjustment). The regression equation is as follows:

$$\begin{aligned} \text{Adjustment} &= a + b_1*(\text{Gender}) + b_2*(\text{Edu}) \\ &+ b_3*(\text{Age}) + b_4*(\text{Work_Exp}) \\ &+ b_5*(\text{CQ_Metacog}) + b_6*(\text{CQ_Cog}) \\ &+ b_7*(\text{CQ_Moti}) + b_8*(\text{CQ_Beha}) \end{aligned}$$

As shown in Table 6, the regression model is significant ($p < 0.01$, $F = 8.57$), with an adjusted R^2 of 0.44. The regression coefficient for Motivational CQ was also positive (0.53) and deemed as significant ($p < 0.01$); thus, H2a was supported. Although regression coefficient for Behavioural CQ was positive, as hypothesized (0.13), it was insignificant ($p < 0.01$); thus, H2b was not supported. Although not hypothesized, Working experience was found to significantly predict Adjustment among expatriates working in Malaysia,

with a regression coefficient of 0.29 ($p < 0.01$), suggesting that those who had longer work experiences tended to adjust better.

MODERATED HIERARCHICAL REGRESSION ANALYSIS OF JOB PERFORMANCE

Eight moderated hierarchical regression analyses were performed to assess whether the moderation effect of each Influence Tactic significantly explained the first success expatriate indicator (i.e., Job Performance). First, the main effects (Influence Tactic, Metacognitive CQ, Cognitive CQ, Motivational CQ, and Behavioural CQ) were entered as the first block of independent variables so that their effect was either controlled or removed. Next, four interaction variables were entered as the second block of independent variables to understand the remaining variance (R^2 change) explained by them after removing the main effect.

As shown in Table 7, the R^2 of the main effect models (Model 1) was found to be very similar across all eight hierarchical regressions, explaining 61 to 62 % of the variations in Job Performance. As for Model 2 (M2), with interaction effects, R^2 increased slightly by around 1 to 5%. Only two models (M2) produced a significant R^2 change (0.05, $P < 0.05$) from M1 (main effects) to M2 (main and moderator effects), indicating the presence of a moderator. However, this provides limited support to H3a. Although the Gift Giving model produced a 5% significant increase in R^2 , its overall effect on Job Performance was nullified; the

TABLE 6
Regression for Adjustment

Independent variables	Std Coefficient
Gender	-0.01
Education	0.07
Age	-0.11
Working Experience	0.29*
CQ_Metacognitive	0
CQ_Cognitive	0.06
CQ_Motivational	0.53**
CQ_Behavioral	0.13
Adjusted R^2	0.44
F	8.57
Sig	<0.01

** $p < 0.01$, * $p < 0.05$

positive effect of Gift Giving was enhanced in Cognitive CQ (1.12, $P < 0.05$) on JP offset the negative effect (-2.02, $P < 0.05$), it brought to Motivational CQ on Job Performance. However, Upward Appeal was found to reduce Motivational CQ's effect on Job Performance, suggesting that Upward Appeal was not a suitable Influence Tactic to use in Malaysia, particularly in an American MNC organization context.

MODERATED HIERARCHICAL REGRESSION ANALYSIS FOR ADJUSTMENT

Similarly, eight moderated hierarchical regression analyses were performed to assess whether the moderation effect of each Influence Tactic was significant in explaining the second expatriate success indicator (Adjustment). As shown in Table 8, R^2 of the main effect models (Model 1) was shown to be very similar to all eight

hierarchical regressions, explaining 40 to 49% of the variations in Adjustment. As for Model 2 with interaction effects, R^2 increased slightly by around 1 to 8%. Similarly, the two models produced a significant R^2 change (0.08, $P < 0.05$); Rational Persuasion and Upward Appeal Influence Tactics, providing limited support to H3b. Although the Upward Appeal model produced an 8% significant increase in R^2 , its overall effect on Adjustment was nullified. The positive effect of Upward Appeal was enhanced in Behavioural CQ (3.82, $P < 0.05$) on JP offset the negative effect (-3.13, $P < 0.05$) was reduced in Motivational CQ on Adjustment. However, Rational Persuasion was found to enhance Motivational CQ's effect on Adjustment, suggesting that Rational Persuasion is a suitable Influence Tactic to use in adjusting to Malaysian work and social life.

TABLE 7
Moderated Hierarchical Regression for Job Performance

Regression Models	1	2	3	4	5	6	7	8
	IT_Exchange	IT_Rational Persuasion	IT_Upward Appeal	IT_Gift Giving	IT_Helpful	IT_Pressure	IT_Consultation	IT_Ingratiation
M1 R^2	0.61	0.61	0.61	0.62	0.61	0.61	0.61	0.61
M2 R^2	0.64	0.65	0.66	0.67	0.64	0.64	0.64	0.62
Change in R^2	0.03	0.04	0.05*	0.05*	0.03	0.03	0.03	0.01
<i>Main Effects</i> IT	0.73	-1.54	1.68**	0.24	-0.15	0.03	-1.01	0.08
CQMetacog	0.54	-0.28	-0.1	-0.17	-0.44	0.24	-0.13	-0.33
CQCog	0.03	0.99	-0.2	-0.51*	1.35	-0.81	0.36	1.04
CQMoti	-0.38	-0.77	2.09**	1.48**	-0.67	1.11	-0.33	0.54
CQBeha	0.97*	0.15	0.27	-0.05	0.85	0.23	0.22	-0.13
<i>Interaction Effects</i> CQMetacog*IT	-1.58	0.21	-0.11	-0.19	0.4	-0.79	-0.23	0.21
CQCog*IT	0.28	-1.47	0.38	1.12*	-1.79	1.68*	-0.27	-1.26
CQMoti*IT	1.97*	2.89*	-2.29*	-2.02*	2.15	-0.85	1084	0.01
CQBeha*IT	-1.51	0.28	0.14	0.71	-0.95	0.13	0.14	0.71

TABLE 8
Moderated Hierarchical Regression for Adjustment

Regression Models	1	2	3	4	5	6	7	8
	IT_Exchange	IT Rational Persuasion	IT_Upward Appeal	IT_Gift Giving	IT_Helpful	IT_Pressure	IT_Consultation	IT_Ingratiation
M1 R ²	0.42	0.42	0.4	0.49	0.44	0.48	0.42	0.44
M2 R ²	0.48	0.5	0.48	0.5	0.49	0.51	0.43	0.51
Change in R ²	0.06	0.08*	0.08*	0.01	0.05	0.03	0.01	0.06
<i>Main Effects</i>								
IT	-1.74	-1.96	-0.27	-1.19	-2.18	-1.61	-0.23	-0.44
CQMetacog	0.2	0.02	-0.44	-0.27	0.47	-0.77	0.46	-0.68
CQCog	-0.98	-0.85	0.64	-0.02	-0.46	0.63	-0.76	1.64*
CQMoti	0.04	-0.79	2.5**	0.4	1.07	0.82	0.02	1.6
CQBeha	0.11	0.9	-1.98**	0.08	-0.1	0.01	0.62	-1.68*
<i>Interaction Effects</i>								
CQMetacog*IT	-0.45	-0.1	0.59	0.21	-0.88	0.84	-1.16	1.11
CQCog*IT	1.55	1.51	-0.99	-0.15	0.79	1.07	1.1	-2.56*
CQMoti*IT	1.16	2.92*	-3.13**	0.55	2.9*	-0.38	1.21	-1.71
CQBeha*IT	0.32	-1.4	3.82**	0.25	0.53	0.34	-0.39	3.18*

DISCUSSION OF MAJOR FINDINGS

As predicted, Behavioural CQ positively predicts Job Performance, providing support to the findings of Ang *et al.* (2007). This result also suggests that expatriates who were high in Behavioural CQ tended to perform better when assigned to work in Malaysia. This is likely due to their ability in mimic locals' verbal and non-verbal communications, which results in them being well-received by locals; and thus, they are given the necessary support to work effectively. In contrast to Ang *et al.*'s (2007) research, Meta-cognitive CQ does not significantly predict Job Performance in this study. The contradictory result could be attributed to perceived cultural similarity factors. The expatriate respondents of this study came from Asian countries with high cultural similarities to Malaysia, where Hofstede and Hofstede (2005) classified their countries and Malaysia under the same Asian cluster, with similar cultural assumptions (e.g., high Power Distance, high Collectivism). Thus, this possibly causes expatriate respondents

to less consciously check or adjust to cultural assumptions (meta-cognitive CQ characteristics), making the meta-cognitive CQ skill irrelevant in this context.

However, motivational CQ, which was not found to predict task performance in Ang *et al.*'s (2007) research, recorded a significant influence on Job Performance in this study. This seems to suggest that those who are high in Motivational CQ, and have an intense interest to learn about Malaysian culture, tend to perform better at work. This is probably due to the fact that Malaysians are high in face-saving and reciprocity (Abdullah, 1996). When expatriates were found to respect and show interest in learning the Malaysian culture, pride level rose significantly (as a result of face-saving tendency), leading them to reciprocate by giving full cooperation, which translates to better Job Performance.

As for Adjustment, only the Motivational CQ component was found to positively predict Adjustment. This once again suggests that those who show pure

interest and humbly learn the Malaysian culture, adjust better to both work and social environment in Malaysia, which is consistent with Dagher's (2010) research. Although Behavioural CQ was found to positively impact Job Performance in Dagher's (2010) study, this was not the case here. This means that talking and behaving like a Malaysian (mimicking verbal and non-verbal behaviours) is effective at work, but not appropriate when extended to social domains in the process of adapting to Malaysian culture.

Finally, the moderating effects of Influence Tactics found in this study were different from those based on a non-expatriate sample reported earlier, and therefore, introduce interesting insights into Influence Tactics literature. First, none of the Tactics found was effectively used in the Chinese Manufacturing plant (Upward Appeal and Giving Gifts) reported by Fu and Yukl (2000), moderate the role that CQ has on expatriate success. To the surprise of the researchers, the usage of Upward Appeal Tactics decreases CQ's impact on Job Performance. Upward Appeal refers to the use of a higher authority to get compliance from a target and may seem consistent with the Malaysian culture characterized by high Power Distance, where lower authority individuals are expected to take instruction from higher authority managers. However, this is not the case in this study. Organization culture may be responsible for this discrepancy. The sample respondents worked for an American-based MNC and obviously practiced strong American culture

at work, which rendered the non-American way (i.e., Upward Appeal) irrelevant in this context. However, if this speculation is true, the tactics reported as preferred by American managers such as rational persuasion, consultation, and exchange, should enhance CQ's impact on Job Performance. Ironically, none of these tactics was found to be significant here. Thus, it is likely that the blend of conflicting cultural assumptions between organization culture (Western) and host national culture (Eastern) may have created a situation where all the parties are consciously trying to avoid hard feelings and downplay all tactics by not using any of them excessively at the workplace.

PRACTICAL IMPLICATIONS

The findings of this study should be of interest to employers or practitioners who intend to send expatriates to Malaysia. This study provides at least three useful implications. First, since those who are culturally intelligent in the motivational aspect were found to adjust and perform well in Malaysia, CQ can be used as a screening tool to shortlist expatriate candidates. Prior to expatriation, adjustment and performance information of candidates is usually unknown. In which case, cultural intelligence score can be used as a proxy to predict the candidates' future performance and adjustment level. Those who score highly in Motivational CQ may have a higher expatriation potential and should be shortlisted for further assessments.

In addition, international human resource managers are proposed to provide

Influence Tactic training to successful candidates. The soon-to-be expatriates to Malaysia are advised to avoid using Upward Appeal while working in Malaysia even though the country's cultural tendency (i.e., high Power Distance) may seem to suggest that it is a preferred tactic amongst Malaysians. Practitioners should at least be warned about the danger of generalizing cultural preferences based solely on country score indicators (Hofstede, 1980). The blended effect between country and organization culture may suggest a totally different set of Influence Tactics that are effective in Malaysia. Nevertheless, in solving work or social adjustment related issues, the Rational Persuasion Influence Tactic is a good option to use in Malaysia. Finally, since those with longer years of experience are found to adjust better in Malaysia, International Human Resources managers may want to consider sending more-senior staff to Malaysia, rather than less-senior ones.

LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR FUTURE STUDIES

Despite the best efforts of the researchers, there are some limitations in this present study. First, the sample was taken from a single organization. Even though this has allowed us to hold organization factors constant, its generalizability to other contexts is limited. Second, the expatriation arrangement, whether self or organization initiated, was not differentiated between, even though it was acknowledged as a current

international assignment trend (Collings *et al.*, 2007; Johnson *et al.*, 2006). Finally, no measurement of organization and national culture was incorporated, thus, limiting empirical evidence to assess culture's effect on Influence Tactic preferences.

The above limitations readily point to several interesting recommendations for future researchers. First, future studies are recommended to include wider expatriate samples, attached with various Multinational Companies of different countries in order to increase generality. Second, the expatriation arrangement variable (self or organization initiated) proposed by Collings *et al.* (2007) may be a potential variable that determines expatriate success, and thus, should be included in future studies. Third, future researchers are also suggested to use WSAS (Work and Social Adjustment Scale) in cross-cultural studies as it is shorter and possesses similar reliability. Lastly, future researchers may want to explicitly measure organization and national culture to understand their effects on Influence Tactics use.

CONCLUSION

This research proposed assessment tools and training materials to help reduce expatriation failure rate. It employed 83 expatriate respondents who are working with a US-based MNC in the Klang Valley, Malaysia. Using two expatriate success indicators (Job Performance and Adjustment), this study found that CQ is indeed a central predictor of the expatriate success model. Coupled with "appropriate" Influence

Tactics, expatriates achieve higher success. Thus, CQ and Influence Tactics are useful tools that can be used for Assessment and Training in the process of identifying and preparing candidates for expatriation assignments.

REFERENCES

- Abdullah, A. (1996). *Going Glocal*. Shah Alam: Malaysian Institute of Management.
- Alon, I., & Higgins, J. M. (2005). Global leadership success through emotional and cultural intelligences. *Business Horizons*, 48, 501-512.
- Ang, S., Dyne, L. V., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural Intelligence: Its Measurement and Effects on Cultural Judgment and Decision Making, Cultural Adaptation and Task Performance. *Management and Organization Review*, 3(3), 335-371.
- Ang, S., Van-Byne, L., & Koh, C. (2006). Personality correlates of the four factor model of cultural Intelligence. *Group & Organization Management*, 31(1), 100-123.
- Babin, B. J., & Boles J. S. (1998). Employee behaviour in a service environment: a model and test of potential differences between men and women. *Journal of Marketing*, 62(2), pp.77-91.
- Black, J. S. (1988). Work Role Transition: A study of American expatriate managers in Japan. *Journal of International Business Studies*, 19, 277-294.
- Black, J. S., & Mendenhall, M. (1990). Cross-cultural training effectiveness: A review and theoretical framework. *Academy of Management Review*, 15, 113-136.
- Bock, P. K. (1970). *Forward: on Culture Shock, a reader in modern anthropology*. New York: Alfred A. Knopf Inc.
- Berson, Y., & Sosik, J. J. (2007). The relationship between self-other rating agreement and influence tactics and organizational processes. *Group and Organization Management*, 32, 675-698.
- Branzei, O. (2002). Cultural Explanations of Individual Preferences for Influence Tactics in Cross Cultural Encounters. *International Journal of Cross Cultural Management*, 2(2), 203-218.
- Brislin, R., Worthley, R., & Macnab, B. (2006). Cultural Intelligence: Understanding behaviors that serves people's goals. *Group & Organizational Management*, 31(1), 40-55.
- Castro, S. L., Douglas, C., Hochwater, W. A., Ferris, G. R., & Frink, D. D. (2003). The Effects of Positive Affect and Gender on the Influence Tactics - Job Performance Relationship. *Journal of Leadership and Organizations Studies* 10(1).
- Cheng, H. L., & Lin, C. Y. Y. (2009). Do as the large enterprises do? Expatriate selection and overseas performance in emerging markets: The case of Taiwan SMEs. *International Business Review*, 18, 60-75.
- Collings, D. G., Scullion, H., & Morley, M. J. (2007). Changing patterns of global staffing in the multinational enterprise: Challenges to the conventional expatriate assignment and emerging alternatives. *Journal Of World Business*, 42, 198-213.
- Crown, K. A. (2008). What leads to cultural intelligence. *Business Horizons*, 51(5), 391-399.
- Daft, R. (2010). *New Era of Management*: South-Western Cengage Learning.
- Dagher, G. K. (2010). The relation between motivational and behavioral cultural intelligence and the three dimensions of cross-cultural adjustment among Arabs working in USA. *The Business Review*, 15(1), 137-143.

- Early, P. C. (2002). Redefining interactions across cultures and organizations: moving forward with cultural intelligence. In B. M. Staw & R. M. Kramer (Eds.), *Research in Organizational Behavior* (pp. 271-299). Oxford, UK: Elsevier.
- Early, P. C., & Ang, S. (2003). *Cultural Intelligence: Individual Interactions Across Cultures*. Stanford, CA: Stanford Business Books.
- Early, P. C., Ang, S., & Tan, J. (2006). *CQ: Developing Cultural Intelligence at Work*. California: Stanford University Press.
- Elenkov, D. S., & Manev, I. M. (2009). Senior expatriate leadership's effects on innovation and the role of cultural intelligence. *Journal Of World Business*, 44, 357-369.
- Fu, P. P., Kennedy, J., Tata, J., Yukl, G., Bond, M., Peng, T.-K., Srinivas, E., Howell, J. P., Prieto, L., Koopman, P., Boonstra, J., Pasa, S., Lacassagne, M.-F., Higashide, H., & Cheosakul, A. (2004). The impact of societal cultural values and individual social beliefs on the perceived effectiveness of managerial influence strategies: a meso approach. *Journal of International Business Studies*, 35, 284-305.
- Fu, P. P., & Yukl, G. (2000). Perceived Effectiveness of influence tactics in the United States and China. *Leadership Quarterly*, 11(2), 251-266.
- GRT. (2010). *Global Relocation Trends Brookfield Global Relocation Services, LLC*. US: Brookfield Global Relocation Services, LLC.
- Gudykunst, W. B., Ting-Toomey, S., & Chua, E. (1988). *Culture and Interpersonal Communication*. Newbury Park: Sage.
- Hall, E. T. (1959). *The silent language*. New York: Doubleday.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Newbury Park, CA: Sage.
- Hofstede, G., & Hofstede, G. J. (2005). *Cultures and organizations: software of the mind* (2nd ed.) New York:: McGraw-Hill.
- Howell, J. M., & Higgins, C. A. (1990). Leadership behaviors, influence tactics, and Career Experiences of Champions of Technological Innovation. *Leadership Quarterly*, 1(14), 249-264.
- Imai, L., & Gelfand, M. (2010). The culturally intelligent negotiator: The impact of cultural intelligence on negotiation sequences and outcomes. *Organizational Behavior and Human Decision Processes*, 112, 83-98.
- Johnson, J. P., Lenartowicz, T., & Apud, S. (2006). Cross-cultural competence in international business: toward a definition and a model. *Journal of International Business Studies*, 37, 525-543.
- Jun, S., & Gentry, J. W. (2005). An exploratory investigation of the relative importance of cultural similarity and personal fit in the selection and performance of expatriates. *Journal Of World Business*, 40, 1-8.
- Kipnis, D., Schmidt, S. M., Swaffin-Smith, C., & Wilkinson, I. (1984). Patterns of Managerial Influence: Shortgun Managers, Tacticians, and Bystanders. *Organizational Dynamics*, Winter, 58-67.
- Kipnis, D., Schmidt, S. M., & Wilkinson, I. (1980). Intraorganizational influence tactics: explorations in getting one's way. *Journal of Applied Psychology*, 65, 440-452.
- McCabe, H. (1993). Reducing Expatriate Failure. *International Journal of Value-based Management*, 6(1), 1-13.
- McGinley, J. (2008). Expatriate Adjustment Within a Social context: Examination of Sample in Russia *Journal of Social, Evolutionary and Cultural Psychology*, 2(2), 56-68.

- Mol, S. T., Born, M., Willemsen, M., & Van Der Molen, H. (2005). Predicting Expatriate Job Performance for Selection Purposes: A Quantitative Review. *Journal of Cross-Cultural Psychology* 36(5), 590-620.
- Mundt, J. C., Marks, I. M., Shear, M. K., & Greist, J. N. (2002). The Work and Social Adjustment Scale: a simple measure of impairment in functioning *The British Journal of Psychiatry* 180, 461-464.
- Nunally, J. C. (1978). *Psychometric Theory* (2nd Edn.). Eaglewood Cliffs, NJ: McGraw Hill Book Company.
- Okpara, J. O., & Kabongo, J. D. (2011). Cross-Cultural training and expatriate adjustment: A study of western expatriates in Nigeria. *Journal of World Business*, 46, 22-30.
- Savicki, V., Downing-Burnettea, R., Hellerb, L., Binderb, F., & Suntingerb, W. (2004). Contrasts, changes, and correlates in actual and potential intercultural adjustment. *International Journal of Intercultural Relations*, 28, 311-329.
- Selmer, J. (1999). Effects of coping strategies on sociocultural and psychological adjustment of Western expatriate managers in the PRC. *Journal of World Business*, 34(1), 41-51.
- Selmer, J., & Luring, J. (2009). Cultural similarity and adjustment of expatriate academics. *International Journal of Intercultural Relations*, 33, 429-439.
- Smith, P. B., & Peterson, M. F. (1988). *Leadership, Organizations and Culture: An Event Management Model*. London: Sage.
- Sternberg, R. J. (1986). A framework for understanding conceptions of intelligence. In R. J. Sternberg & D. K. Detterman (Eds.), *What is intelligence? Contemporary viewpoints on its nature and definition* (pp. 3-15). Norwood, NJ: Ablex.
- Templer, K. J., Tay, C., & Chandrasekar, N. A. (2006). Motivational Cultural Intelligence, Realistic Job Preview, Realistic Living Conditions Preview, and Cross-Cultural Adjustment. *Group and Organization Management* 31(1), 154-173.
- Triandis, H. C. (1994). *Culture and Social Behavior*. New York: McGraw Hill.
- Tucker, M. F., Bonial, R., & Lahti, K. (2004). The definition, measurement and prediction of intercultural adjustment and job performance among corporate expatriates. *International Journal of Intercultural Relations*, 28, 221-251.
- Ward, C., Fischer, R., Lam, F., & Hall, L. (2009). The Convergent, Discriminant, and Incremental Validity of Scores on a Self-Report Measure of Cultural Intelligence. *Educational and Psychological Measurement*, 69(1), 85-105.
- Ward, C., & Kennedy, A. (1993). Where's the "culture" in cross-cultural transition? Comparative studies of sojourner adjustment. *Journal of Cross-cultural Psychology*, 24, 221-249.
- Yukl, G. (1998). *Leadership in organizations (4th edition)*. Upper Saddle River, NJ: Prentice-Hall.
- Yukl, G., Falbe, C., & Youn, J. Y. (1993). Patterns of Influence Behavior for Managers. *Group & Organization Management*, 18(1), 5-28.
- Yukl, G., & Tracey, B. (1992). Consequences of Influence Tactics used with subordinates, peers, and the boss. *Journal of Applied Psychology*, 77, 525-535.

***Tak Nak* (Say No) Anti-Smoking Television Advertisement: Is it Influential Enough to Stop Smoking?**

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ABSTRACT

This paper aims to look at the levels of exposure, awareness, receptivity, and assessment of the *Tak Nak* (Say No) anti-smoking television advertisement in Malaysia. At the same time, the study also explores possible relationships between the said factors with the intent to smoke. The study utilized self-administrated questionnaires to survey the perceptions people hold regarding the above stated matters. Despite the evidence showing the ineffectiveness of the *Tak Nak* anti-smoking television advertisement, the respondents still believe that all the elements (namely, exposure, awareness, receptivity, and assessment) are able to influence the intent to smoke. All the factors [exposure ($\chi^2 = 14.151$, $p = 0.007$), awareness ($\chi^2 = 10.471$, $p = 0.033$), receptivity ($\chi^2 = 33.149$, $p = 0.000$), and assessment ($\chi^2 = 10.359$, $p = 0.035$)] show significant relationships with the intent to smoke.

Keywords: Anti-smoking, advertisement, *Tak Nak* (Say No), Malaysia

INTRODUCTION

Smoking related illnesses have been one of the main public health concerns for many countries (Lim *et al.*, 2009). Based on the report by the Disease Control in 2003, as reported by the previous article, it was estimated that 10,000 deaths in Malaysia were due to these illnesses. This

rising concern over smoking addiction has encouraged the Malaysian government to take some serious efforts in implementing the Control of Tobacco Product Regulations 2004 and simultaneously complying with the requirements of the Framework Convention on Tobacco Control (Chew, 2011). One of the activities implemented is the *Tak Nak* (Say No) anti-smoking campaign. The *Tak Nak* anti-smoking campaign is held at state and national levels through various mass media channels such as television, newspaper, magazine, radio,

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cinema, billboards, school advertising panels, giant posters and community boards. The nationwide anti-smoking advertising was allocated with RM 100 million to run over five years (Chew, 2011). Other than that, the Ministry of Health Malaysia had also set up Quit Clinics with a total of 421 clinics as of November 2010 in the country to help smokers quit their smoking habit. In addition, the Ministry of Health and the National Poison Centre have also established tobacco “Infoline” and “Quitline” to provide further access to cessation assistance for smokers.

According to Hyland *et al.* (2006), the anti-smoking television advertisement is an important component of comprehensive tobacco control programmes to counter massive advertising and marketing ploys attached to smoking. Several studies have indicated that anti-smoking television advertisement will eventually lead to a decline in the number of smokers. To add to these, Pierce *et al.* (1990) have also highlighted that smoking prevalence will be reduced when the anti-smoking television advertisement is televised at prime time, while Netemeyer *et al.* (2005), suggested that in producing anti-smoking television advertisement, the focus should be more on targeting specific anti-smoking beliefs such as the common belief of the harmfulness of tobacco smoke. Kim (2006) emphasized on using the right message framing instead. Findings by these researchers have also been supported by a study of Reardon and Miller (2008) which stated that intensity and timing of anti-smoking television

advertisement does contribute in reducing the number of smokers, provided that the anti-smoking television advertisement is a positive advertisement emphasizing on personal consequences instead of social consequences.

This study is motivated by two reasons. One is to discover the degree of the effectiveness of the *Tak Nak* anti-smoking television advertisement in terms of its exposure, awareness, receptivity and assessment of its targeted audience. The other is to look at possible relationships of all the selected elements on the people’s intent to smoke in Malaysia.

MATERIALS AND METHODS

Literature Review

According to Vardavas (2009), mass media have played a key role in the historical increases and decreases in tobacco use globally, and they remain a powerful tool for public health advocates as an avenue of projecting health related messages. Through this aspect, it has been concluded that to be influenced by a message, an audience must be exposed to it, pay attention to it and understand it before they develop a cognitive or affective response.

Studies have revealed that anti-smoking television advertisements would lead to a reduction in smoking prevalence and consumption (e.g., Pierce *et al.*, 1990; Reardon & Miller, 2008). Other researchers such as Pechmann and Ratneshwar (1994) believed that the anti-smoking television advertisements reinforce a negative image towards smoking and peers who

smoke, and therefore, immunize viewers from believing favourable myths about smoking and smokers. These findings are supported by Pechamnn and Shih (1999) who have highlighted the importance of anti-smoking television advertisement by proving that scenes in the advertisement showing smoking as unwise, unattractive, and misguided had managed to taint the image of smoking. In a later study by Pechmann and Knight (2002), the outcome was pretty much similar in proving that anti-smoking television advertisement shown in conjunction with cigarette advertising made salient negative smoker stereotypes, and thus, evoked negative thoughts about peers who smoke. The same conclusion was also found in Farrelly *et al.* (2005).

Andrews (2004) further explained that anti-smoking television advertisements directly affect anti-smoking beliefs. A later study by Tangari *et al.* (2010) indicated that corrective statements in anti-smoking television advertisements conducted or sponsored by tobacco companies have a positive effect on anti-smoking beliefs. However, this tactic only has significant effects for light smokers but corrective statements were shown to be not effective at influencing chain smokers.

Over the years, the outcomes between anti-smoking television advertisement and smoking have been the subject of controversy in the research literature. While there are studies proving that anti-smoking advertisement helps in educating and reducing the number of smokers, there are also studies that said otherwise. For instance,

Landman *et al.* (2002) reported that anti-smoking television advertisement will bring a negative outcome if companies in tobacco industry are responsible or have a helping hand in conducting the advertisement. Surprisingly, Shanahan *et al.* (2008) insisted the use of an actor or an actresses in anti-smoking television advertisements, while seeming to be socially responsible, could actually reduce advertisement effectiveness. The study argued that the use of real victims gained stronger emotional response.

A later work by Capella *et al.* (2008), who used a quantitative integration (meta-analysis) of the entire anti-smoking television advertisement, reported that anti-smoking television advertisements do not have any significant effect on cigarette consumption.

Nonetheless, there is no definite review from past literature that suggests a fixed variable of measurement for effectiveness of anti-smoking television advertisements. However, various findings have indicated several factors which include exposure, awareness, receptivity, and assessment, as having an influence on the effectiveness of an anti-smoking television advertisement. It is therefore the intention of this study to integrate all the four factors in the *Tak Nak* anti-smoking television advertisement and also to determine their impacts on the intent to smoke.

The Framework

For the case of the advertisement exposure towards the public, both, Pierce *et al.* (1990), and Wakefield (1998) pointed out

that purchasing prime time to broadcast an advertisement is the best way to increase the level of exposure among public. In addition, Hyland *et al.* (2006) highlighted the importance of boosting up the gross rating points (GRP) to ensure higher advertising exposure. Duke (2009) combined both the ideas, concluding that purchasing prime time television spot would result in a wider reach, expanding among citizens living in the rural and low population density area. As a result, the higher GRP will lead to a higher smoking cessation rate nationwide.

Moreover, in terms of the awareness of the advertisement's contents, Niederdeppe *et al.* (2005) stated the importance of message clarity and stylistics presentation in order for the public to be aware of the message content of an advertisement. Reardon and Miller (2008) pointed out that the advertisement must be able to create an emotional arousal among the viewers in order for them to be aware of its message content.

In the case of enhancing a positive receptivity towards the advertisement, Devlin *et al.* (2007) emphasized the need to have different message themes as smokers' respond differently to different message appeals. Wolburg (2006), and Veer *et al.* (2008) also talked about the importance of different message framing for youth smokers. Samu and Namita (2008) highlighted different initiatives advertisement is needed for gender, while Niederdeppe (2008) focused on different initiatives for educated and less educated smokers. Hamilton (2001), and Laroche *et*

al. (2001) agreed that more targeted anti-smoking television advertisement messages directed to different cultures are needed.

Finally, to get a higher chance of favourable assessment towards the advertisement, Pechmann *et al.* (2003) concluded that health scare messages and themes work best although Reardon *et al.* (2006) stated that adolescents with high uncertainty avoidance responded more favourable towards them, whereas the opposite was held for adolescents with low uncertainty avoidance. In addition, Kim (2006) explained that a promotion-framed anti-smoking television advertisement is more likely to influence independent self-view teenagers to stop smoking while prevention-framed anti-smoking television advertisement is more likely to persuade inter-dependent teenagers to stop smoking.

To sum it up, the literature review of earlier studies shows that effectiveness of anti-smoking television advertisement is very much dependent upon the following factors: (1) public exposure towards the of the advertisement, (2) awareness of the advertisement's contents, (3) receptivity towards the advertisement, and (4) assessment of the advertisement in influencing the intention to smoke after watching the advertisement. The framework is shown in Fig.1.

Based on the above discussion, four hypotheses were formulated for this study:

H₁: The level of exposure on the *Tak Nak* anti-smoking television advertisement has a significant relationship on the intention to smoke.

- H₂: The level of awareness on the *Tak Nak* anti-smoking television advertisement has a significant relationship on the intention to smoke.
- H₃: The level of receptivity on the *Tak Nak* anti-smoking television advertisement has a significant relationship on the intention to smoke.
- H₄: The level of assessment on the *Tak Nak* anti-smoking television advertisement has a significant relationship on the intention to smoke.

Sampling

For this particular study, questionnaires were distributed randomly although some selection characteristics were applied to the sampling frame so that it consisted of people who had expressed their willingness to respond to pen and pencil surveys, had a wide range of ages from 18 years old to over

65 years old and an approximately equal representation of gender, as well as coverage of smokers and non-smokers. The selection restrictions to the sampling frame were also adopted to ensure that the external validity of the results would be strengthened where the sample was representative and could be generalized to a wider population. Overall, 200 questionnaires were hand-delivered to potential respondents. Out of 200, 171 sets of these questionnaires were collected and deemed as usable.

Measurement

The survey incorporated two statements on exposure based on Smith and Stutts (2006), while four item measures on the awareness towards the advertisement were taken from Netemeyer *et al.* (2005). In addition, three item measures for receptivity towards the message content of an advertisement were adopted from Duke *et al.* (2009), and the

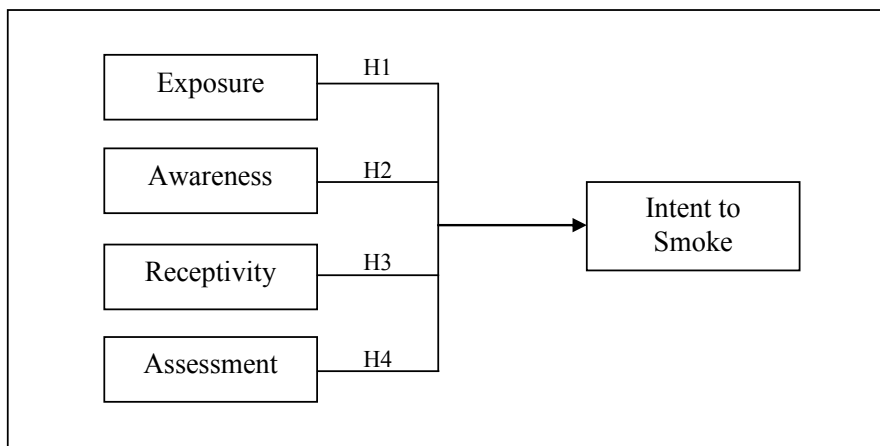


Fig.1: The relationship between exposure, awareness, receptivity, and assessment towards the effectiveness of the *Tak Nak* anti-smoking television advertisement

Note: H1: Hypothesis 1; H2: Hypothesis 2; H3: Hypothesis 3; H4: Hypothesis 4

four item measures on the assessment towards an advertisement were taken from Beltramini and Bridge (2001). Finally, the three item measures regarding the intent to smoke after watching the advertisement were taken from Reardon *et al.* (2006).

The respondents were asked to answer all the rating statements based on a 4 point Likert scale ranging from 1 = definitely not; 2 = probably not; 3 = probably yes; and 4 = definitely yes. In addition, six general demographic questions were included in the questionnaire to understand the characteristics of the sample. Collecting these demographic data enabled the research to generate descriptive statistics and to further analyze any sub-groups of the survey respondents, if required. The demographic questions focused on gender, age, race, religion, occupation, and education level.

The categorical data of the smoking behaviour in the questionnaire were adopted from the 2003 Global Youth Tobacco Survey done in Malaysia. If the respondents had tried smoking, even one or two puffs, they were required to answer the three remaining questions in the section. The first one was the smoking initiation age. For this question, the answers ranged from “I have never smoked cigarettes”; 7 years old or younger; 8 or 9 years old; 10 or 11 years old; 12 or 13 years old; 14 or 15 years old; and 16 years old or older. The next two questions looked at the amount of cigarettes smoked within a month and the total number of cigarettes smoked within a day of that stated month. The answers to the question on the number of cigarettes smoked during the past 30 days (one month) were divided into seven

categories; 0 day; 1 or 2 days; 3 to 5 days; 6 to 9 days; 10 to 19 days; 20 to 29 days; and all 30 days. Finally, seven categories were outlined for the last question on the smoking behaviour where the respondents were asked of the number of cigarettes taken on the days the respondents spent smoking within the last 30 days. The categories were: “I did not smoke cigarettes during the past 30 days (one month)”; “less than 1 cigarette per day”; “1 cigarette per day”; “2 to 5 cigarettes per day”; “6 to 10 cigarettes per day”; “11 to 20 cigarettes per day”; and “more than 20 cigarettes per day.”

Reliability Analyses

As indicated in Table 1, the results of the reliability analysis show that all the measurements are reliable. As each of the alpha value is above 0.6, these data are within the range of having acceptable internal consistency to be used in the project study (Cronbach, 1951).

TABLE 1
Results of the Reliability Analysis

Description	No. of Items	Cronbach's Alpha (α)
Exposure	2	0.786
Awareness	4	0.907
Receptivity	3	0.928
Assessment	3	0.927
Intent to Smoke	3	0.885

RESULTS AND DISCUSSIONS

Out of 200 questionnaires distributed and collected, 171 questionnaires were returned, resulting in the response rate of 85.5%.

TABLE 2
Socio-Demographic Profile of the Respondents

Demographic Factor	Frequency	Percent (%)
Gender		
Male	92	53.8
Female	79	46.2
Total	171	100.0
Race		
Malay	47	27.5
Chinese	105	61.4
Indian	18	10.5
Others	1	0.6
Total	171	100.0
Age		
20 and below	22	12.9
21 to 30 years	99	57.9
31 to 40 years	19	11.1
41 to 50 years	14	8.2
51 and above	17	9.9
Total	171	100.0
Level of Education		
High School	46	26.9
STPM/Diploma	40	23.4
Degree	83	48.5
Masters	2	1.2
Total	171	100.0
Religion		
Muslim	47	27.5
Buddhism	75	43.9
Hindu	18	10.5
Christian	30	17.5
Others	1	0.6
Total	171	100.0
Occupation		
Manager	16	9.4
Sales/Marketing	23	13.5
Administration	25	14.6
Student	90	52.6
Others	17	9.9
Total	171	100.0

Table 2 shows the demographic profile of the respondents. Out of 171 respondents, 92 of them are males (53.8%). The remaining 79 are females, equating to 46.2% of the sample size. Majority of the respondents are Chinese, with a total of 105 respondents (61.4%). The second largest are the Malays, with 47 respondents (27.5%). The majority of the respondents are in the age category ranging from 21 to 30 years old, equating to 57.9% of the total respondents. As for the level of education, a majority of the respondents are degree holders, with a total of 83 respondents (48.5%). The second highest are SPM holders, with a total of 46 respondents (26.9%), followed by STPM holders, with a total of 40 respondents (23.4%). Lastly, 1.2% of the total respondents are Master's degree holders. In terms of religion, the highest percentage was contributed by Buddhists with 75 respondents (43.9%), followed by Muslims with 47 respondents (27.5%), and Christians with 30 respondents (17.5%). Majority of the respondents are students, with a total of 90 respondents (52.6%), while the second highest category of the respondents comprised of those working in the administration field, with a total of 25 respondents (14.6%).

Description of the Smoking Behaviour

Table 3 shows the breakdown of smokers and non-smokers among the respondents. Out of 171 respondents, 108 of them are smokers, while the remaining 63 are non-smokers. In other words, more than half (63.2%) of the population are smokers.

Table 4 summarizes the age breakdown of smoking initiation among respondents who smoke or used to smoke. The total number of the respondents whose smoking initiation age is in the primary school years is 10 people totalling to 9.3%. This category represents the respondents in the age of 7 to 11 years old. Meanwhile, 49 people were in the smoking initiation age at the early secondary school years, with 45.4%. This category represents those in the age of 12 to 15 years old. Finally, the respondents in the smoking initiation age category for young adults were also 49 people, with 45.4% as well. This category represents those in the age of 16 years old or older. It can therefore be concluded that majority of the respondents started smoking during their teenage years (13-18 years old).

Table 5 illustrates the number of smoking days per month for the respondents who smoke or used to smoke. Twenty-five out of the 108 respondents (23.1%) might be ex-smokers because they had not been smoking for the past one month. Meanwhile, 34 people (31.5%) were reported to smoke all 30 days of the month recorded, followed 5 respondents (4.6%) who smoked 3 to 5 days per month, while 15 respondents (13.9%) smoked 6 to 9 days per month. A total of 17 respondents (15.7%) said they smoked 10 to 19 days per month and finally, 12 respondents (11.1%) stated they smoked 20 to 29 days per month. Table 6 summarizes the amount of cigarettes a smoker smokes per day for the past 30 days for the respondents who are currently smoking and used to smoke. For this, 25

TABLE 3
Smoking Behaviour

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Yes	108	63.2	63.2	63.2
	No	63	36.8	36.8	100.0
	Total	171	100.0	100.0	

TABLE 4
Smoke Initiation Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7 years old or younger	1	.6	.9	.9
	8 or 9 years old	5	2.9	4.6	5.6
	10 or 11 years old	4	2.3	3.7	9.3
	12 or 13 years old	11	6.4	10.2	19.4
	14 or 15 years old	38	22.2	35.2	54.6
	16 years old or older	49	28.7	45.4	100.0
	Total	108	63.2	100.0	
Missing	System	63	36.8		
Total		171	100.0		

respondents (23.1%) answered that they did not smoke a single stick for the past 30 days. This pattern indicated that they might be ex-smokers. Meanwhile, 24 respondents were recognized as social smokers (i.e. less than 1 cigarette to 5 cigarettes per day), with 23.2%. For the case of light smokers (6 to 10 cigarettes per day), 26 respondents were recorded (24.1%). A total of 17 respondents (15.7%) were categorized as heavy smokers (11-20 cigarettes per day). Finally, a total of 15 respondents were considered as chain smokers (more than 20 cigarettes per day), with 13.9%.

LEVEL OF EXPOSURE, AWARENESS, RECEPTIVITY, AND AWARENESS OF THE *TAK NAK* ANTI-SMOKING TELEVISION ADVERTISEMENT

Table 7 illustrates the respondents' level of exposure to the *Tak Nak* anti-smoking television advertisement. From the table, it can be seen that the majority of the respondents were not exposed to the *Tak Nak anti-smoking* television advertisement at all. Out of the 171 respondents, 109 of them had not viewed the advertisement at all, while 53 others thought they might have viewed it,

TABLE 5
Amount of Days Smoking Per Month

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	0 days	25	14.6	23.1	23.1
	3 to 5 days	5	2.9	4.6	27.8
	6 to 9 days	15	8.8	13.9	41.7
	10 to 19 days	17	9.9	15.7	57.4
	20 to 29 days	12	7.0	11.1	68.5
	All 30 days	34	19.9	31.5	100.0
Total		108	63.2	100.0	

TABLE 6
The amount of cigarettes a smoker smokes per day

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	I did not smoke cigarettes during the past 30 days (one month)	25	14.6	23.1	23.1
	less than 1 cigarette per day	1	.6	.9	24.1
	1 cigarettes per day	2	1.2	1.9	25.9
	2 to 5 cigarettes per day	22	12.9	20.4	46.3
	6 to 10 cigarettes per day	26	15.2	24.1	70.4
	11 to 20 cigarettes per day	17	9.9	15.7	86.1
	more than 20 cigarettes per day	15	8.8	13.9	100.0
	Total	108	63.2	100.0	

and only 9 confirmed that they had viewed the advertisement. This findings show that the execution strategy of airtime for the *Tak Nak* anti-smoking television advertisement is a failure because out of 171 respondents, only 9 had viewed the advertisement.

Table 8 shows the respondents' level of awareness to the message content of the *Tak Nak* anti-smoking television advertisement. Out of 171 respondents, only 23 were aware of the message contents of the advertisement, while 108 believed they understood the message content of the advertisement, and the remaining 40 did not have any clue at all about the message content of the advertisement. Similarly, the statistics also shows that the selection of the medium to air the *Tak Nak* anti-smoking television advertisement is not effective in increasing the public awareness of the

message contents of the advertisement.

Table 9 shows the respondents' level of receptivity to the message content of the *Tak Nak* anti-smoking television advertisement. Out of 171 respondents, 85 felt that the advertisement was only a waste of time and money, while 68 other assumed it might work. On the contrary, the remaining 18 were confident the advertisement would work to a great effect. The findings prove that the message content in the current *Tak Nak* anti-smoking television advertisement is not influential enough in persuading smokers to stop smoking. Table 10 shows the respondents' level of assessment to the message content of the *Tak Nak* anti-smoking television advertisement. Out of 171 respondents, 51 do not believe or choose not to believe the message content of the advertisement. Meanwhile, 94 have doubts

TABLE 7
The level of exposure of the *Tak Nak* anti-smoking television advertisement

		GrInt			Total
		1.00	2.00	3.00	
GrExp	Have not viewed at all	71	31	7	109
	Might have viewed	41	10	2	53
	Confirmed to have viewed	6	0	3	9
Total		118	41	12	171

Note: GrInt – Group Intent; GrExp – Group Exposure

TABLE 8
The level of awareness of the *Tak Nak* anti-smoking television advertisement

		GrInt			Total
		1.00	2.00	3.00	
GrAware	No clue of the message	26	10	4	40
	Might understand the message	74	30	4	108
	Aware of the message	18	1	4	23
Total		118	41	12	171

Note: GrInt – Group Intent; GrAware – Group Awareness

on the message content of the advertisement. The remaining 26 believe the message content of the advertisement. These findings prove that the message content of the *Tak Nak* anti-smoking behaviour is not able to influence the respondents' self-view of the negativity of smoking in Malaysia.

Despite the evidence showing the ineffectiveness of the *Tak Nak* anti-smoking television advertisement, the respondents still believe that all the elements (exposure,

awareness, receptivity, and assessment) are able to influence the intention to smoke. All the factors [exposure ($\chi^2 = 14.151$, $\rho = 0.007$), awareness ($\chi^2 = 10.471$, $\rho = 0.033$), receptivity ($\chi^2 = 33.149$, $\rho = 0.000$) and assessment ($\chi^2 = 10.359$, $\rho = 0.035$)] show significant relationships with the intent to smoke (refer to Table 11, Table 12, Table 13, and Table 14). Indirectly, the respondents feel that if the *Tak Nak* anti-smoking television advertisement is aired at least

TABLE 9
The level of receptivity to the *Tak Nak* anti-smoking television advertisement

		GrInt			Total
		1.00	2.00	3.00	
GrRec	Waste of time	43	34	8	85
	Assumed it might work	60	7	1	68
	Work to great effect	15	0	3	18
Total		118	41	12	171

Note: GrInt – Group Intent; GrRec – Group Receptivity

TABLE 10
The level of assessment on the *Tak Nak* anti-smoking television advertisement

		GrInt			Total
		1.00	2.00	3.00	
GrAssess	Did not believe message	31	16	4	51
	Doubt message	66	24	4	94
	Believe message	21	1	4	26
Total		118	41	12	171

Note: GrInt – Group Intent; GrAssess – Group Assessment

TABLE 11
Chi-square Test of Independence for Exposure and Intent to Smoke

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.151 ^a	4	.007*
Likelihood Ratio	12.182	4	.016
Linear-by-Linear Association	.043	1	.835
N of Valid Cases	171		

*Correlation is significant at 0.05 level (2-tailed)

at appropriate time of viewing, contains clear messages, uses the right theme, and manages to become favourable to many, it will be able to have an effect on the viewers' intent to smoke.

CONCLUSION

In general, the findings of the study have shown that the effectiveness of the *Tak Nak* anti-smoking television advertisement (intent to smoke) depends on the respondents' level of exposure to the advertisement, awareness towards the

message content of the advertisement, positive receptivity towards the message content of the advertisement, and favourable assessment towards the message content of the advertisement.

In the case of the *Tak Nak* anti-smoking television advertisement, the level of exposure towards the advertisement is very low, with only 9 out of 171 respondents have watched the advertisement. Due to this low level of exposure, the *Tak Nak* anti-smoking television advertisement is assumed to have not been aired during the

TABLE 12
Chi-square Test of Independence for Awareness and Intent to Smoke

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.471 ^a	4	.033*
Likelihood Ratio	11.604	4	.021
Linear-by-Linear Association	.278	1	.598
N of Valid Cases	171		

*Correlation is significant at 0.05 level (2-tailed).

TABLE 13
Chi-square Test of Independence for Receptivity and Intent to Smoke

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.149 ^a	4	.000*
Likelihood Ratio	38.184	4	.000
Linear-by-Linear Association	11.832	1	.001
N of Valid Cases	171		

*Correlation is significant at 0.01 level (2-tailed).

TABLE 14
Chi-square Test of Independence for Assessment and Intent to Smoke

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.359 ^a	4	.035*
Likelihood Ratio	12.162	4	.016
Linear-by-Linear Association	1.089	1	.297
N of Valid Cases	171		

*Correlation is significant at the 0.05 level (2-tailed).

peak hours to capture viewers' attentions. This finding does not support the results by Pierce, Macaskill and Hill (1990) and Duke (2009), in which the advertisement aired at prime time television spot would receive the maximum exposure.

In addition, the findings also show that the awareness towards the message content of the *Tak Nak* anti-smoking television advertisement is not better as well, with the majority of the respondents having no idea or lack the awareness towards its message content. Once again, the findings go against what has been stated by Wakefield (1998), i.e. the public would be aware of the message content of the advertisement, provided that the advertisement was aired at sufficient exposure levels and at regular intervals.

It was deduced earlier that positive receptivity and a favourable assessment towards the message content played a role in determining the effectiveness of an anti-smoking television advertisement. However, the message content of the *Tak Nak* anti-smoking television advertisement has a very low level of receptivity and also an unfavourable assessment as many believe that the advertisement is only a gimmick, and a waste of money and time. This result supports the finding of Devlin, Eadie, Stead and Evans (2007) which highlighted that there is no single anti-smoking television advertisement that can appeal to all smokers universally. At the same time, this result has failed to support the studies by Hamilton (2001), and Netemeyer, Andrews and Burton (2005), Miller, Froubert, Reardon

and Vida (2006), and Wolburg (2006) who stated that advertisement should not just show the physical effects of smoking on the smokers, but also the emotional toll on both the smokers and their family members. Although the *Tak Nak* anti-smoking television advertisement has integrated the elements of physical effects and the emotional toll of relevant parties, it still does not manage to gain enough positive receptivity and likeable assessment from the audience.

The above conclusions are somehow skewed from the other findings that show the respondents' positive perceptions on the impacts of all the four factors: exposure, awareness, receptivity, and assessment towards the intent to smoke. For instance, many respondents feel that the effects on the intent to smoke will be higher if the *Tak Nak* anti-smoking television advertisement is aired at least at appropriate viewing time, contains clear messages, uses the right theme, and manages to be favourable to many. Thus, what went wrong with the *Tak Nak* anti-smoking television advertisement here in Malaysia? Some recommendations are deemed to be applicable to improve its effectiveness. First of all, in order to increase the exposure of the advertisement and the awareness towards the message content of the advertisement, the step of purchasing prime-time television advertising spots should be maintained. However, this time around, the purchase should not focus on national television channels only. Instead, it should also include Malaysian Satellite Channels as well, such as Astro. In the case

of Astro, the time for the advertisement should not be on prime time only, but on other strategic time or slots based on media panel's data and viewer statistics of Astro. As for the case of positive receptivity and favourable assessment, it is perhaps time to change the message contents of the advertisement. It is advisable to focus more on promotion focused advertisement by pointing out the benefits of not smoking compared to smoking rather than using health scare tactics to reduce the intent to smoke (Kim, 2006). Apart from this, the theme of social consequences of smoking is applicable as well because according to Laroche, Taffoli, Zhang and Pons (2001), social consequence advertisements work best in Asian countries with a collectivist culture.

One of the limitations of the study is the dependent variable used. There are many variables used in determining the effectiveness of anti-smoking television advertisement. Perhaps, intent to smoke is not a strong indicator because intent is just a mental state of mind without action instead of final action, where there is physical evidence that smoking has stopped for a certain individual. Moreover, there was a time constraint in conducting this study.

SUGGESTIONS FOR FUTURE RESEARCH

Like most studies on the effectiveness of anti-smoking television advertisement, this study was conducted based on quantitative method. It is suggested that qualitative study also needs to be incorporated in determining

the effectiveness of anti-smoking television advertisement as doing so will provide more accurate and reliable information from the respondents. Furthermore, future study should consider adding more variables into the framework so that a more concrete and precise finding can be tabulated.

REFERENCES

- Andrews, J. T. *et al.* (2004). Understanding adolescents' intentions to smoke: an examination of relationship among social influence, prior trial behavior, and anti-tobacco campaign advertising. *The Journal of Marketing*, 68(3), 110-123.
- Beltramini, R. F., & Bridge, P. D. (2001). Relationship between tobacco advertising and youth smoking: assessing the effectiveness of a school-based, antismoking intervention program. *The Journal of Consumer Affairs*, 35(2), 263-277.
- Capella, M. L., Taylor, C. R., & Webster, C. (2008). The effect of cigarette advertising bans on consumption: a meta-analysis. *Journal of Advertising*, 37(2), 7-18.
- Chew, J. D. (2011). *The effectiveness of Tak Nak antismoking television advertisement*. (Master of Business thesis dissertation). Administration at the Graduate School of Management, Universiti Putra Malaysia.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334.
- Devlin, E., Eadie, D., Stead, M., & Evans, K. (2007). Comparative study of young people's to anti-smoking messages. *International Journal of Advertising*, 26(1), 99-128.
- Disease Control Division, Ministry of Health Malaysia (2003). Clinical practice guidelines on treatment of tobacco use and dependence, 2003. Retrieved on August 28th 2011 from <http://>

- www.treatobacco.net/en/uploads/documents/Treatment%20Guidelines/Malaysia%20treatment%20guidelines%20in%20English%202003.pdf.
- Duke, J. C., Vallone, D. M., Allen, J. A., Cullen, J., Mowery, P. D., Xiao, H., Dorrlar, N., Asche, E. T., & Heaton, C. (2009). Increasing youths' exposure to a tobacco prevention media campaign in rural and low-population-density communities. *American Journal of Public Health*, 99(12), 2210-2216.
- Farrelly, M. C., Davis, K. C., Haviland, M. L., Messeri, P., & Heaton, C. G. (2005). Evidence of a dose-response relationship between "truth" antismoking ads and youth smoking prevalence. *American Journal of Public Health*, 95(3), 425-431.
- Hamilton, J. H. (2001). The demand for cigarettes: advertising, the health scare, and the cigarette advertising ban. *The Review of Economics and Statistics*, 23(2), 401-411.
- Hyland, A., Wakefield, M., Higbee, C., Szczypka, G., & Cummings, K. M. (2005). Anti-tobacco television advertising and indicators of smoking cessation in adults: a cohort study. *Health Education Research*, 21(2), 296-302.
- Kim, Y. J. (2006). The role of regulatory focus in message framing in anti-smoking advertisement for adolescents. *Journal of Advertising*, 35(1), 143-151.
- Krishnan, M. (2003). *Global Youth Tobacco Survey (GYTC) Malaysia*. Retrieved on August 28, 2011 from <http://www.wpro.who.int/NR/rdonlyres/147D9E32-CC77-4185A2FDAF5CC5C942BD/0/GYTSMalaysia.pdf>.
- Landman, A., Ling, P. M., & Glantz, S. A. (2002). Tobacco industry youth smoking prevention programs: protecting the industry and hurting tobacco control. *American Journal of Public Health*, 92(6), 917-930.
- Laroche, M., Toffoli, R., Zhang, Q., & Pons, F. (2001). A cross-cultural study of the persuasive effect of fear appeal messages in cigarette advertising: China and Canada. *International Journal of Advertising*, 20(3), 297-317.
- Miller, C., Foubert, B., Reardon, J., & Vida, I. (2006). Teenagers' response to self-and-other-directed anti-smoking messages. *International Journal of Market Research*, 49(4), 515-533.
- Netemeyer, R. G., Andrews, J. C., & Burton, S. (2005). Effects of antismoking advertising-based beliefs on adult smokers' consideration of quitting. *American Journal of Public Health*, 95(6), 1062-1066.
- Niederdeppe, J., Hersey, J. C., Farrelly, M. C., Haviland, M. L., & Heaton, C. G. (2005). Comparing adolescent reactions to national tobacco countermarketing advertisement using web TV. *Journal of Social Marketing*, 11(1), 3-18.
- Pechmann, C., & Knight, S. J. (2002). An experimental investigation of the joint effects of advertising and peers on adolescents' beliefs and intentions about cigarette consumption. *Journal of Consumer Research*, 29, 5-19.
- Pechmann, C., & Ratneswar, S. (1994). The effects of antismoking and cigarette advertising on young adolescents' perceptions of peers who smoke. *Journal of Consumer Research*, 21, 236-251.
- Pechmann, C., & Shih, C. F. (1999). Smoking scenes in movies and antismoking advertisements before movies: effects on youth. *American Marketing Association*, 63(2), 1-13.
- Pechmann, C., Zhao, G., Goldberg, M. E., & Reibling, E. L. (2003). What to convey in antismoking advertisement for adolescents: the use of protection motivation theory to identify message themes. *The Journal of Marketing*, 67(2), 1-18.
- Pierce, J. P., Macaskill, P., & Hill, D. (1990). Long-term effectiveness of mass media led antismoking campaigns in Australia. *Journal of Public Health*, 80(5), 565-569.

- Reardon, J., & Miller, C. (2008). Smoking prevention messages for adolescents: how intensity, valence, and recipient of consequences affect attitude toward the ad and intent to smoke. *Journal of Marketing Theory and Practice*, 16(1), 67-77.
- Reardon, J., Miller, C., Foubert, B., Vida, I., & Rybina, L. (2006). Antismoking messages for the international teenage segment: the effectiveness of message valence and intensity across different cultures. *Journal of International Marketing*, 14(3), 115-138.
- Samu, S., & Bhatnagar, N. (2008). The efficacy of anti-smoking advertisements: the role of source, message, and individual characteristics. *International Journal of Non-profit and Voluntary Sector Marketing*, 13, 237-250.
- Shanahan, K. J., Hopkins, C. D., & Carlson, L. (2008). The efficacy of the use of implicature and actor portrayal labels by non-profits in anti-smoking print advertisements. *Journal of Current Issues and Research in Advertising*, 30(2), 65-78.
- Smith, K. H., & Stutts, M. A. (2006). The influence of individual factors on the effectiveness of message content in antismoking advertisements aimed at adolescents. *The Journal of Consumer Affairs*, 40(2), 261-293.
- Tangari, A. H., Netemeyer, R. G., Andrews, J. C., & Burton, S. (2007). How do anti-tobacco campaign advertising and smoking status affect beliefs and intentions? Some similarities and differences between adults and adolescents. *American Marketing Association*, 26(1), 60-74.
- Vardavas, C. I., et al. (2010). What defines an effective anti-tobacco TV advertisement? A pilot study among Greek adolescents. *International Journal of Environmental Research and Public Health*, 7, 77-78.
- Veer, E., Tutty, M., & Willemse, J. (2008). It's time to quit: using advertising to encourage smoking cessation. *Journal of Strategic Marketing*, 16(4), 315-325.
- Wakefield, M. A., et al. (1998). Impact of tobacco control policies and mass media campaigns on monthly adult smoking prevalence. *American Journal of Public Health*, 98(8), 1443-1450.
- Wolburg, J. M. (2006). College students' responses to antismoking messages: denial, defiance, and other boomerang effects. *The Journal of Consumer Affairs*, 40(2), 294-323.

APPENDIX

ITEMS IN THE MEASUREMENTS

Items	Measures
During the past 30 days (one month), the chances of me viewing the <i>Tak Nak</i> antismoking television advertisement frequently is very high.	Exposure
I am likely to see <i>Tak Nak</i> antismoking television advertisement on a frequent basis.	Exposure
Are you aware of the contents in <i>Tak Nak</i> antismoking television advertisement?	Awareness
Did you know that <i>Tak Nak</i> antismoking television advertisement is telling you that smoking causes heart disease?	Awareness
Did you know that <i>Tak Nak</i> antismoking television advertisement is telling you that smoking causes mouth cancer?	Awareness
Did you know that <i>Tak Nak</i> antismoking television advertisement is telling you that smoking will cause an amputated leg?	Awareness
<i>Tak Nak</i> antismoking television advertisement is convincing	Receptivity
<i>Tak Nak</i> antismoking television advertisement grabbed my attention	Receptivity
<i>Tak Nak</i> antismoking television advertisement gave me good reasons not to smoke	Receptivity
Does <i>Tak Nak</i> antismoking television advertisement tell you all the bad things caused by smoking?	Assessment
Does <i>Tak Nak</i> antismoking television advertisement tell you the truth about smoking?	Assessment
Do you believe what <i>Tak Nak</i> antismoking television advertisement tells you about smoking?	Assessment
After watching <i>Tak Nak</i> antismoking television advertisement, is there a chance you might smoke one puff or more of a cigarette?	Intent to smoke
After watching the <i>Tak Nak</i> antismoking television advertisement, you might try out cigarette smoking for a while.	Intent to smoke
After watching the <i>Tak Nak</i> antismoking television advertisement, if one of your best friends were to offer you a cigarette, you would smoke it?	Intent to smoke

Factors Affecting Wives' Role Structure in Urban Family Purchase Decision Making

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ABSTRACT

Family decision making is a process where families make decisions regarding purchases of goods and services to be consumed by members of the family. Past research indicates that decision making process varies with products and services purchased. Factors found to effect the decision making process include culture, sex role orientation, and resources of husbands and wives. The objectives of this research are to investigate the decision making process and the factors affecting this particular process. Two hundred and fifty-one wives residing in the Klang Valley, Malaysia, were interviewed. Findings indicate that majority of purchases by families are made jointly. Husbands are more dominant in the purchase outcome stage of the decision making process. Language spoken at home is a relatively important cultural element affecting purchase decisions in the family, and sex role orientation seems to influence the purchase of high involvement products. However, wives' resources do not influence purchase decisions.

Keywords: Family, purchase decision making, resources, sex role orientation

INTRODUCTION

The institution of family has changed over time. There are many changes in perceptions and roles within the family due to industrialization-caused social changes.

More education and working opportunities are available to women, creating a different perception of the roles of women and children in the family, and the role of husbands as the head of the family. It is also apparent that a wife's power in the family increases when the wife is employed outside of the house, a situation that is brought about by societal development of the country. Social and economic developments have also brought about changes in cultural

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values, which consequently affect role structure in family purchase decision making (Xia *et al.*, 2006).

Family is defined as a group of people who are related by blood, marriage or adoption and members live together. It is an important consumer unit as most purchases are bought by families or individuals for the consumption of the family. Purchase decisions by families is unique and complex as the decision making process involves more than one person. One's spouse and children will have a strong direct influence on the purchase behaviour and marketers used this information as a basis of segmentation and developing marketing strategies (Tinson & Nancarrow, 2005). The roles of husbands and wives are the focus of research in family decision making as they are the most basic unit in the family (Schiffman & Kanuk, 2010). Marketing researchers are interested to study family decision making as information regarding the process and input of the decision making process is important in predicting consumers' intention and purchase (Makgosa, 2010). This study aims to investigate family purchase decision making process in urban Malaysia and the factors affecting this process. As the effects of modernization have brought about changes in the family structure in Malaysia, this study will be able to highlight the effects of these changes on family purchase decision making (Samsinar & Rao, 2005).

FAMILY PURCHASE DECISION MAKING

Family purchase decision making is the process by which decisions regarding purchases for the families are made. Most purchases by the family will affect the family members directly, as both the process and the outcomes affect the well being of family members and the family as a unit (Hawkins, 2004). Family purchase decision making involves different stages, depending on the product being purchased. These stages are initial, information gathering and evaluation, and outcome. The roles played by family members differ with regard to the products being purchased, the stage in the decision making process, and the characteristics of families and spouses (Samsinar, 1994; Samsinar & Rao, 2005). These roles may change over time due to the changes in the environment such as economic development, which consequently may lead to adjustments in the role structure of the decision-making process. The framework for the decision making process relevant for this study can be seen in Fig.1.

Past research (e.g., Laskmi & Murugan, 2008) found significant changes in relative influence of wives in the three phases of decision making. The information search stage is characterized by more role specialization than problem recognition and final decision. The husband's influence is more dominant from the problem recognition to information search stages. From the information search to the purchasing stage, the influence is more equally shared between

the husband and the wife in the purchase of major durable products, and a high degree of joint decision making has been found. However, the patterns of relative influence in these purchases were not unidimensional. There was a variety of unique relative influence patterns that made segmentation based on a major influencer in the outcome stage of the purchase decision making difficult.

According to some researchers (Xia *et al.*, 2006; Samsinar *et al.*, 2004), the impact of socioeconomic factors may be negated by norms or cultural values prevalent in a society. Religion, an important cultural aspect in any society, has an impact on the role structure in a family's decision making process. Women of some religions, such as Islam, for example, perceive their husbands to be the head of the family and thus the decision maker in all the important purchasing issues. Traditionally, these women would only passively be involved

in the decision making process. On the other hand, Christianity, Buddhism, and Hinduism, as religions, do not specifically emphasize male dominance in the family. Webster (1992) unobtrusively observed husbands and wives shopping for small appliances, furniture, and clothing in five different states in India. Observations were summarized into the initiation-response categorization used by Atkin (1978). His findings revealed no apparent difference between the three ethnic groups (Sikh, Hindu, and Muslim). In addition, no obvious variations were also noted when the sample was compared according to state or by urban and rural setting. Another interesting finding was that the husband was dominant in the lower social class; however, in the middle class, dominance shifted to the wives. As for couples in the higher social class, the husbands and wives were found to be equally influential.

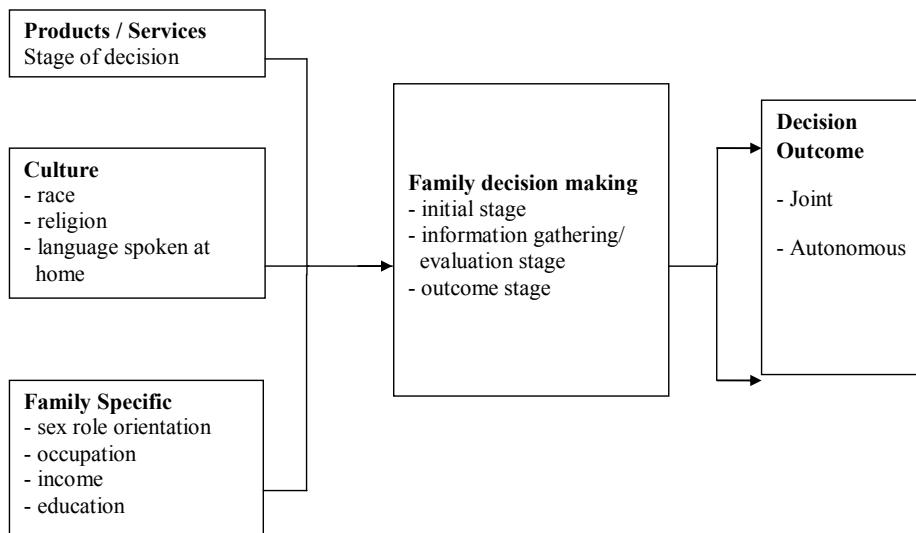


Fig.1: Framework of Family Purchase Decision Making

Samsinar (1994) found that the effect of culture (as measured by racial groups) was only evident in the purchase of groceries. The Chinese wives were found to be most influential as compared to the Malay and Indian wives. Na *et al.* (2003) conducted a study investigating the impact of economic stress in Korean family. The findings of the study showed that the economic shock leads to an increase in financial risk and has a consequential effect on family purchase decision. There is significantly more joint decision making for the low involvement products, and very little change in the syncretic behaviour in the high involvement products. The impact was felt more by the lower income group as they made more syncretic decisions. The higher income group, however, does accommodate their style to suit the changing environment.

Another factor that affects family purchase decision making is sex role orientation. It is made up of norms that reinforce gender inequalities between the male and the female, specifically the husband and the wife (Qualls, 1987). These values were inculcated in young individuals in their socialization process. The norms and specific behaviour of each spouse are brought into marriages and are reflected in many ways, one of which is the family buying process. Sex role norms dictate the appropriate behaviour patterns and the roles to be played by each spouse. It affects equality or inequality of power between the spouses (Scanzoni, 1982; Scanzoni & Fox, 1980). Sex role norm is an important factor in family decision making,

especially in the context of the wife's involvement in the decision making process. Sex role orientation and task allocation within a family are changing; therefore, traditional generalizations about family decision making may be obsolete (Delener & Bilenas, 1991).

Another major determinant of who has the final decision making authority in the family is determining who controls the most resources. In this respect, resources such as income, education, and occupation are surrogate currencies used for negotiation in a family's decision making. These surrogate currency is used to bargain for the desired goals in decision making (Samsinar *et al.*, 2004). This theory, referred to as resource theory, suggests that power in a family is determined by the ability of each spouse to provide for the needs of the family. Taking into consideration past research, five hypotheses were developed to test whether wives' influences vary with the following variables:

- i. products/ services,
- ii. stage of the decision making process
- iii. selected cultural variables
- iv. wives' sex role orientation
- v. wives' resources

METHOD

A survey using a structured questionnaire was used to collect data. Three hundred wives residing in the Klang Valley were conveniently chosen. However, only two hundred and fifty-one (251) respondents

were included in the study due to incomplete and no responses. The sample elements were selected based on race (60% Malay, 30% Chinese and 10% Indians) and occupation (50% working wives, 50% housewives). This is to reflect the population in Malaysia, and also the percentage of wives who are working. Klang Valley was chosen as this area is the most urban area in Malaysia.

The final sample showed majority (31.5%) of the respondents are between 41-50 years old, while 75% between 21-60 years old. Majority (63.7%) of them are Malays (Muslim). About half (49%) of the respondents are housewives. Meanwhile, 35% of the wives interviewed earned between RM1, 001 - RM5, 000, and about half (48.6%) had Diploma or Bachelor degree qualification.

Measurement and Data Analysis

Family is operationised as men and women who are married and living together for at least a year. Family purchase decision making is operationised as the process that a family goes through in the purchase of products used by the whole family. Fifteen products and services were used in the study. These products had been used in some previous studies (Davis & Rigaux, 1974; Xia *et al.*, 2006), which included furniture, electrical appliances, clothing, vacation, and cars. A modified measure used by some previous researchers (Davis and Rigaux, 1974; Xia *et al.*, 2006) to measure wives' influence was also used. Mean influences were calculated for each

product/ service category; accordingly, the mean scores between 1-1.7 are considered as husband dominant, whereas the mean scores between 1.71-2.3 are perceived as joint decisions and mean scores between 2.31-3 are considered as wife dominant. Culture was measured using race, religion, and language spoken at home. Sex role orientation was measured using Scanzoni's (1980) twenty-one (21) item measure. The Cronbach alpha calculated for this construct was .684, which is an acceptable value. Wives' resources were measured using their occupation, income and education. These measures were used previously in similar studies in Malaysia (see Samsinar, 1994; Samsinar & Mary, 1996). Data were analysed using descriptive as well as inferential statistical analyses. Analysis of variance, Chi-square analysis, and t-tests were conducted accordingly, in line with the objectives of this study.

FINDINGS

Table 1 indicates the mean influence of wives in purchases of fifteen (15) selected products and services across three (3) different stages of the decision making process. As can be seen from the table, and according to the respondents, the overall decisions for the purchase of the fifteen product/ service categories could be categorized as a joint decision ($M = 1.88$). The husbands are dominant in the purchase of computers ($M = 1.58$), and the wives are dominant in the purchase of groceries ($M = 2.35$), wife's clothing ($M = 2.53$), and children's clothing

(M = 2.35). Joint decisions by husbands and wives are dominant in the other product/service categories.

Further analysis revealed that in the initial stage, where purchase problem was first recognized, it was basically a joint decision (M = 2.0). Only in the purchase of computers that it was husband found to be dominant (M = 1.66). The next stage is information gathering. Decisions in this stage were also generally found to be jointly made (M = 1.99). The wives are dominant for the purchases of groceries (M = 2.30), children's clothing (M = 2.44), and wife's clothing (M = 2.58). In the outcome stage, where actual purchases were done, the husbands are relatively more dominant,

i.e. they are dominant for the purchases of electrical appliance (M = 1.68), computers (M = 1.55), houses (M = 1.64), and cars (M = 1.66), even though it can still be considered as joint decision (M = 1.84). From the table, it can also be seen that overall, the husbands' influence increased from the initial to information gathering to finally the purchase process.

As can be seen from Table 2, the effects of cultural variables are different for various products and services. Generally, there is not much difference in the wives' influence in family purchase decision making. Race has a significant effect for the purchase of clothing for children ($\chi^2 = 24.812$), as well as clothing for husband ($\chi^2 = 27.982$).

TABLE 1

Mean influence of wives in the purchases of selected products and services across different stages of the decision making process

	Product/ Services	Initial Stage	Information Gathering / Evaluation Stage	Outcome Stage	Mean
1	Furniture	2.19	2.04	1.94	2.06
2	Electrical Appliances	1.95	1.92	1.68	1.84
3	Computers	1.66	1.63	1.55	1.58
4	Groceries	2.38*	2.30	2.45*	2.35*
5	Children's clothes	2.37*	2.44*	2.26	2.35*
6	Wife's clothes	2.53*	2.58*	2.49*	2.53*
7	Husband's clothes	1.75	1.98	1.73	1.79
8	Vacation	1.85	1.91	1.77	1.87
9	Eating Out	1.98	1.87	1.79	1.87
10	Education	2.01	1.97	1.82	1.94
11	Entertainment	1.95	2.02	1.75	1.91
12	Bank Accounts	2.04	1.84	1.79	1.87
13	Insurance	1.79	1.88	1.72	1.74
14	Home (buy / rent)	1.83	1.88	1.64	1.76
15	Cars	1.8	1.80	1.66	1.74
16	Grand Mean	2.00	1.99	1.84	1.85

Note: * wife dominant

Religion, on the other hand, is a significant factor influencing wives' influence in the purchase of education services ($\chi^2 = 36.027$), entertainment ($\chi^2 = 35.501$), and house ($\chi^2 = 34.155$). The last variable tested was language spoken at home. This variable was found to affect wives' influence for the purchase of furniture ($\chi^2 = 93.147$), children clothing ($\chi^2 = 41.551$), husband clothing ($\chi^2 = 37.733$), entertainment ($\chi^2 = 40.129$), house ($\chi^2 = 45.712$), and car ($\chi^2 = 35.306$).

The findings reveal that the language spoken at home is the most important variable affecting wives' influence in a family's purchase decision making. It seems to be impacting the purchase of high involvement products and services. Another important variable is religion, whose influence is more for services.

Table 2 also reveals that the purchase of furniture was influenced by the major

language spoken at home. The purchase of children and husband clothing was influenced by race and major language spoken at home. Decisions on the children's education were influenced by religion, while family entertainment was influenced by religion and language, and purchase of house was influenced by religion and language, compared to and the purchase of cars which was influenced by language.

An analysis was also conducted to determine the effect of sex role orientation on the purchase categories. Table 3 shows that sex role orientation has a significant effect on the purchase of vacation (F value = 2.518, p value = 0.000), education (F value = 1.615, p value = 0.020), banking accounts (F value = 1.372, p value = 0.089), homes (F value = 1.403, p value = 0.075), and cars (F value = 1.611, p value = 0.021).

TABLE 2
Chi-Square Analysis of Differences in Wives' Influences based on Selected Cultural Variables

Product	Race (χ^2)	Religion (χ^2)	Language spoken at home (χ^2)
Furniture	15.487	32.928	93.147*
Electric Appliances	19.494	26.846	26.997
Computers	10.766	19.184	12.377
Groceries	16.631	24.670	27.590
Children's clothes	24.812**	25.383	41.551*
Wife's clothes	12.856	13.140	19.404
Husband's clothes	27.982**	30.908	37.733*
Vacation	9.210	16.763	27.100
Eating out	19.047	30.651	27.938
Education	9.633	36.027*	14.690
Entertainment	8.978	35.501*	40.129*
Bank Accounts	16.440	21.815	30.769
Insurance	11.872	14.360	13.357
House (buy/rent)	19.847	34.155**	45.712*
Cars	14.604	20.269	35.306**

TABLE 3
The Effect of Sex Role Orientation on Purchase Categories

Purchases	F – value	P-value
Furniture	1.340	.106
Electrical Appliances	1.728	.010*
Computers	1.082	.355
Groceries	.770	.825
Child Clothes	1.261	.163
Wife Clothes	.616	.958
Husband Clothes	.865	.691
Vacation	2.518	.000*
Eating Out	1.232	.185
Education	1.615	.020*
Entertainment	.864	.692
Bank Accounts	1.372	.089**
Insurance	1.055	.393
Home	1.403	.075**
Cars	1.611	.021*

*Significant at .05 level

**Significant at 0.1 level

Table 4 shows the findings of wives' influences based on their resources (education, income and education). Education has no effect on wives' influence. Meanwhile, occupation is a significant factor for the purchase of electrical appliances ($\chi^2 = 48.029$). Similarly, income is a significant factor for the purchase of electrical appliances ($\chi^2 = 61.788$), and insurance ($\chi^2 = 49.291$). The purchasing of electrical appliance was found to be influenced by occupation and income. Overall, the factors used to measure wives' resources (namely, occupation, income and education) do not have any significant effect on family purchase decision making.

DISCUSSIONS AND CONCLUSIONS

The study aims to investigate family purchase decision making in urban Malaysia and the factors affecting the decision

TABLE 4
Chi-Square Analysis of Differences in Wives' Influences based on Wives' Resources

Product	Occupation (χ^2)	Income (χ^2)	Education (χ^2)
Furniture	35.743	33.625	29.909
Electric Appliances	48.029**	61.788*	30.844
Computers	44.152	29.704	25.235
Groceries	34.376	37.387	34.423
Children's clothes	30.222	17.198	31.212
Wife's clothes	24.900	26.686	32.158
Husband's clothes	30.640	24.489	31.475
Vacation	29.057	30.229	28.945
Eating out	28.822	37.648	31.618
Education	41.904	27.899	27.062
Entertainment	32.023	20.347	22.661
Bank Accounts	41.611	38.707	30.392
Insurance	32.103	49.291**	24.402
House (buy/rent)	44.776	21.251	32.113
Cars	42.780	27.869	22.862

making process. Besides analyzing the decision making process, culture, sex role orientation and resources were investigated to determine their effects on family purchase decisions.

The findings of this study revealed that majority of the products/ services purchased for the family are a joint decision. Except for those very specific items such as computers, groceries and clothing, the findings indicated that these items were bought jointly by the husbands and wives. It is interesting to note that the wives' influence generally decreased in the outcome stage, i.e., when the products were actually purchased. The husbands' bigger influence at this stage may be an actual manifestation of power in the family. This power is actually financial in nature, and will happen in majority of the households where husbands earned more income.

Analyses of the effects of selected cultural variables reveal that there was generally no significant effect of these variables on majority of the purchases. Except for purchases like electrical appliances, the extent of the influence was more for the purchase of services. Major language spoken at home, which is an element of culture, appeared to be a more effective variable influencing the wives' influence. This is consistent with earlier findings by Samsinar (1994), and Samsinar and Rao (2005).

Differences in sex role orientation were found only based on religion, income, and education. This finding is consistent with the previous findings by Samsinar (1994),

and Samsinar and Rao (2005). As can be expected, wives who are highly educated are more exposed to many different values and beliefs, and are consequently more open-minded. These women are also holding better positions in their jobs. The findings, however, did not reveal any difference in sex role orientation between working and non-working wives. This can be due to the fact that even though the housewives are not working, they would think like working wives, i.e. with modern orientation. These housewives live in urban settings, and are thus exposed to different values and beliefs indicating modern orientation.

It is also interesting to note that sex role orientation effect varies with certain products/ service purchases. Sex role orientation has a more prominent effect on the purchase of more expensive products or services. As these purchases require more efforts and inputs, wives with more modern sex role orientation would have more influence in these high involvement purchases.

These findings help shed some light for marketing practitioners in developing their marketing strategies for products used by family. Marketers should take into consideration that many purchases for family consumption are done jointly. Thus, target market should be identified with caution, as both husbands and wives are involved in the decision making process. It was also noted from the findings that role structure is product specific and it varies with the stages of the decision making process. Even though the husbands have

the ultimate purchase influence, the wives contribute in the earlier stage of the decision making process.

Marketers should also take into consideration the changes in family values brought about by economic and social development. Wives with modern sex role orientation are relatively more open-minded, and take an active role in purchase decisions, especially involving high involvement products. However, as wives' resources do not influence the decision making, it can be assumed that wives' values and beliefs are crucial in influencing their behaviour rather than their resources. Hence, marketers should take note of this fact, as considering these resources alone is not sufficient to predict wives' influence in the decision making process.

The findings in this study should be interpreted with caution. The sample of wives was taken from an urban setting, and may not be reflective of Malaysia in general. Moreover, the sample was also taken from the Klang Valley, and did not include other parts of Malaysia. In future, studies should be done to investigate other psychographic variables rather than demographic variables. The study should also include different parts of Malaysia, including the non-urban setting. More studies should also be conducted to examine the differences between the working and non-working wives' values and belief systems.

In conclusion, this study has found husbands, who hold the 'financial' power in the family, are very powerful in family purchase decision making. Language spoken

at home has a significant effect on wives' influence in the family purchase decision making. In addition, sex role orientation was also found to have significant impact in major purchases. As it varies with income and education of the wives, sex role orientation is assumed to improve, and the wives are expected to have more influence in the future.

REFERENCES

- Atkin, C. K. (1978). Observation of parent-child interaction in supermarket decision making, *Journal of Marketing*, 42, 41-45.
- Davis, H. L., & Rigaux, B. P. (1974), Perception of marital roles in decision processes, *Journal of Consumer Research*, 1, 51-62.
- Delener, N., & Bilenas, J. V. (1991), Sex role perceptions, husband and wife influence, and household purchase decision making behaviour. *Advances in Marketing*, 74-82.
- Hawkins, D. B., & Coney, K. A. (2004), *Consumer Behaviour: Building Marketing Strategy*, (9th Edition). Boston, McGraw Hill.
- Laskmi, P. V., & Murugan, M. S. (2008). The influence of marital roles on product purchase decision making. *The Icfai Journal of Consumer Behavior*, 3, 66-77.
- Makgosa, R. (2010). Sex Role Orientation and conflict resolution in the joint purchase decision of spouses: Does ethnicity matter? *Management Research Review*, 22(8), 784 – 797.
- Na, W., Son, Y., & Marshall, R. (2003), Purchase-role structure in Korean families: revisited, *Psychology and Marketing*, 20, 47.
- Qualls, W. J. (1987). Household decision behaviour: the impact of husbands' and wives' sex role orientation. *Journal of Consumer Research*, 14, 276-79.

- Samsinar, M. S. (1994). The patterns of role structure in family decision Making in Malaysia. *Journal of Asian Business*, 10, 30-48.
- Samsinar, M. S., & Mary, A. (1996). Wives' involvement and the effects of sex role orientation in family decision making, *Proceedings of Multicultural Marketing Conference*, Virginia, USA, 102-106.
- Samsinar, M. S., Wong, F. Y, Dahlia, Z., Ruhana, B., & Zalfa Laili H. (2004). The effects of spousal resources on family purchase decision making in Malaysia: a replication. *Malaysian Journal of Consumer and Family Economics*, 7, 131-138.
- Samsinar M. S., & Rao, C.P. (2005), Family decision making processes, *Journal of Marketing and Communication*, 1, 76-87.
- Scanzoni, J., & Fox, G. L. (1980). Sex roles, family and society: the seventies and beyond, *Journal of Marriage and the Family*, 42, 20-33.
- Scanzoni, J. (1982). *Sexual Bargaining: Power Politics in American Marriage* (2nd Edition). Chicago, IL: University of Chicago Press.
- Schiffman, L. G., & Kanuk, L. L. (2010). *Consumer Behavior*. Upper Saddle River, NJ, USA: Pearson Education, Inc.
- Tinson, J., & Nancarrow, C. (2005), The influence of children on purchases: the development of measures of gender orientation and shopping savvy. *International Journal of Market Research*, 47, (1), 5-25.
- Webster, C. (1992). Observation of marital roles in decision making: a third world perspective. *American Marketing Association Educators Proceedings*, 513-519.
- Xia, Y., Ahmed, Z. U., Hwa, N. K., Tan, W. L., & Teo, W. (2006), Spousal Influence in Singaporean family purchase decision-making process: a cross-cultural comparison. *Asia Pacific Journal of Marketing and Logistics*, 18, 201-222.



Factors Influencing the Choice of Private Medical Centre Among Malaysians

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ABSTRACT

With better education, knowledge and income, people today are able to choose the medical services that will satisfy them the most. The purpose of this study is to examine the factors influencing consumers in choosing a Private Medical Centre. In this study, five factors were used and these included waiting time, environment, reputation of consultant, facilities and cost. These factors had been used to see whether they influenced the choice for private medical centre among Malaysians. Data were collected through a questionnaire survey that involved customers of private medical centre in Serdang, Kajang, and Puchong. Convenience sampling technique was used to distribute 155 questionnaires. The results showed that there was a significant relationship between environment, facilities, and cost, with the choice of Private Medical Centre among Malaysians. Based on the results, it is suggested that the management of Private Medical Centre should focus on providing the best services to their customers to ensure they get the greatest satisfaction.

Keywords: Private medical centre, consumer behaviour, determinant factors, facilities, environment

INTRODUCTION

Nowadays, medical services are considered very important throughout the world. People in this day and age have better levels of education, knowledge and income, and therefore, they have the power to choose medical cares that satisfy them the most. As Jabnoun and Chaker (2003) mentioned that due to increasing demand of their services

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from the government as well as the public, healthcare organizations in the public sector are under pressure to upgrade their service quality and the effectiveness of their medical services to be at par with the medical services offered by the private sector.

Currently, searching for the kind of medical attention they need has become a familiar norm. Although the hospital industry is growing like mushroom after rain, it has not been able to meet patients' demands (Miller, 2006). The power of selecting medical care these days has shifted to the patient. A study by Miller (2006) in the UK revealed that patients requiring surgery in the UK have at least four to five choices of hospitals ranging from the ordinary National Health Service trust (NHS) to private practitioners specializing in very specific medical procedures. Due to the rapid growth of the hospital industry, medical centres have come out with the option of 'Choose and Book' whereby patients are allowed to opt for where and when to have medical procedures needed by using the national electronic booking programme (Miller, 2006). In addition, patients can make appointment with the medical centre through phone call, digital television, or logging into a website (Miller, 2006).

Looking at the environment in Malaysia, the government is continually striving to provide the highest quality health care in which the Ministry of Health offers a wide variety of networks of clinics and hospitals nationwide. Historically, the health care in Malaysia has notably undergone some

radical transformation from the earliest pre-colonial medical cares¹ to the birth of colonialism² to meet the growing needs of proper health care for Malaysian residents (Forum, Health Care in Malaysia, 2012). Over the years, with the presence of many medical schools in the country, Malaysia has been continuously vigilant about their health care system. Consistent with this phenomenon, the demand for quality medical care in Malaysia is on the rise. In an interview with the Borneo Post, it was mentioned by Siti Sa'diah Sheikh Bakir, the Managing Director of KPJ Healthcare, that quality medical care would continue to be in high demand, with increasing affluence and rising consumer awareness on the need to priorities their healthcare needs³ (Borneo Post Online, 2010). In order to cater for this growing demand, the government of Malaysia is encouraging the private sector to play a greater role in the delivery of frontline public services. This indicates that residents have wider alternatives in choosing medical centres in Malaysia.

Overall, Malaysia has 117 public hospitals and 224 private hospitals (Forum, Health Care in Malaysia, 2012). Due to this significant number of medical centres,

¹ The earliest pre-colonial medical cares were confined mostly to those traditional remedies that are evident today on local Chinese, Malays and some other ethnic group populations.

² More modern and westernized medical practices are slowly introduced to Malaysia.

³ Key drivers such as changing disease patterns, rising life expectancy, medical coverage by health insurance, and government policies were the forces behind this.

the best provider of medical care will come out as the winner and rein in the cash. The public now has the power to choose medical services that satisfy them the most, and therefore, it is important to understand the factors influencing them in choosing the hospitals to get medical care. This study was conducted with the objective to investigate the determinants of the choice of a medical centre by Malaysian patients. Yong (2000) mentioned that Malaysians feel that public funded hospitals could not provide the kind of services they require, thus, there is a need for them to turn to private hospitals. As a result, the number of private hospitals in Malaysia is increasing rapidly. Therefore, this study focused on factors affecting the choice of medical centre among Malaysians.

There are five factors to be investigated, namely waiting time, environment, reputation of consultant, facilities and cost factor. Result of the study is beneficial to the management of the medical centres, patients, and future researchers. For the management, they can have a better understanding of consumers' choice of medical centre, as well as to what extent patients are satisfied with their services, based on which, they can improve their services in areas that are not satisfactory. As for patients, they can express their opinions and give suggestions on the hospital's services. They will also be informed of the benefits and services that they can get from the medical centre. In conducting this study, the researchers are exposed to the real situation occurring in private health sector in Malaysia. Therefore, the knowledge and experience gained

through this study can be applied practically in other health care services.

LITERATURE REVIEW

Healthcare is not about the requirement to meet physical, psychological and social needs of patients anymore, but more of a tendency to achieve the overall well-being of physical, mental and social condition of the patient (Rose *et al.*, 2004). To realize this, the quality of healthcare industry and motivational state of the provider should also be considered (Finlayson, 2002). In addition, in light of the development of the health care industry, Kui-Son Chio (2004) mentioned that medical practitioners and providers have to revamp their service delivery in order to better suit the needs of the customers. The restructuring of the medical service focuses on finding the best way to satisfy the needs and desires of patients (Donabedian, 1996; Williams, 1994). As a consequence, the culture of health care system has shifted to patient centred system rather than of medical professionals as seen in the previous millennium.

A study by Miller (2006) stated that hospitals are paid per patient for treatment and surgery they carry out. If patients choose to go to hospital A rather than hospital B because they have heard that Hospital A is better or for another reason, Hospital A will get more money than Hospital B. Hence, a hospital that is better equipped, both physical and social standing wise will get to be more profitable due to the choices made by customers (Miller, 2006).

Study by Appleby *et al.* (2003) indicated that patients' choice could contribute to competitive pressure on less deserving hospital to improve their services and overall performance. However, if the management of the hospital cannot provide or improve the service they will lose patients to other established hospitals. It can cause the hospital to face financial decline.

In addition, Baldwin (2005) stated that certain hospitals were favoured because of their ability to attract patients due to factors such as waiting time, convenience, certainty of treatment dates, and availability of transport. Although the reputation of the hospitals is important, it does not seem to be based solely on clinical outcomes, which are generally seen as given. Baldwin (2005) stated that specific health related issues would affect the hospital's reputation but it was the subjective assessment of the environment, ease of parking, facilities for visitors and perceived cleanliness that patients based their choice on. Baldwin (2005) also claimed that through good management, a trust could gain competitive advantage through initiative such as clean hospital, better hospital food and ensuring patients' privacy and dignity.

Furthermore, Coulter *et al.* (2004) revealed that as waiting times start to decrease, other factors will become more important to patients such as the facilities and car parking. Coulter *et al.* (2004) found that patients tend to choose a hospital based on how well known it is. For example, people might choose the Portland Hospital because Victoria Beckham had her baby there.

Moreover, a quantitative research conducted by MORI Social Research Institute (2004) indicated that the residents in the Thames Valley welcome the concept of more choices of hospital. The study found that the three most important factors in the choice of hospitals for the general public were hospital reputation or star rating, the distance of the hospitals from home, and the reputation of the consultant.

As for selecting the physician in a fee-for service arrangement, Razzouk *et al.* (2004) stated that the important factors considered by patients were price, location, accessibility, credentials of the physician, quality of admitting hospitals and physician interpersonal skill.

Consistently, it was mentioned by Cole (2004) that the most important criteria considered in selecting a medical centre by patients were physician expertise, friend's or relative's recommendations, number of physicians located at preferred hospital, physician available by phone, physician recommendation, cost, ease of scheduling and time spent waiting.

Besides research on factors influencing the selection of hospitals by patients, some research has been conducted with regards to the patient's expectation of the medical centre. Expectations have been defined by Gilbert *et al.* (1982) as an individual's thought or belief of future performance of a service, which are mainly influenced by personal experience, word-of mouth, as well as communication and organization's external communications exercise. Patients' expectations consist of physical quality, namely reception area, examination room

and medical equipment, while interactive quality is the contact between customers and service personnel and corporate quality, which are based on image and reputation.

Study by Coulter *et al.* (2005) that evaluated the London Patient Choice Scheme found that a high standard of cleanliness and length of waiting time were the two most important factors to patients when choosing a hospital. In addition, Liyanage and Egbu (2005), in their study, mentioned that cleanliness standards are highly influential in patients' choice of hospitals. This is because a poor standard of hygiene is regarded as increasing the risk of contracting infections.

Furthermore, there have been studies conducted on patients' perception towards medical centres. Perception has been defined by Teas (1993) as an individual's formed opinion of the experienced service. Liyanage and Egbu (2005), in their exploration of the role of facilities management, found that patients' perceptions of quality are not only based on clinical treatments but also on a range of other related support function factors. Pertinent to this, MORI (2004) identified that patients' perceptions on a hospital ward environment are influenced by factors affecting their ability to eat and sleep, feelings of security or insecurity, privacy in washroom areas and being able to see out of the window. According to Leonardi *et al.* (2007) and Juran (1988), patients at the time of admission might express only their critical need to get rid of their pain. However, when the patient is discharged they will evaluate the service

of the hospital according to various other hospital factors such as food, safety, noise, response time of the nurse, and physicians' competency.

THEORY USED

This study is based on the Theory of Reason Action (TRA). TRA is a model that finds its origins in the field of social psychology. This model was developed by Fishbein and Ajzen (1975). TRA defines the links between belief, attitudes, norms, intentions and behaviours of individuals. According to this model, a person's behaviour is determined by his behavioural intention to perform it. This intention is itself determined by the person's attitudes and his subjective norms towards the behaviour. Fishbein and Ajzen (1975) define subjective norms as "the person's perception that most people who are important to him think he should or should not perform the behaviour in question. This theory can be summarized by the following equation:

$$\begin{aligned} \text{Behavioural intention} \\ = \text{attitude} + \text{subjective norms.} \end{aligned}$$

According to TRA, the attitude of a person towards a particular behaviour is determined by his beliefs on the consequences of this behaviour, multiplied by his evaluation of these consequences. Belief is defined by the person's subjective probability that performing a particular behaviour will produce specific results. This model therefore suggests that external stimuli influence attitudes by modifying the structure of the person's beliefs. Moreover,

behavioural intention is also determined by subjective norms that are themselves determined by the normative beliefs of an individual and by his motivation to comply to the norms.

TRA also claims that all other factors which influence the behaviour will only do so in an indirect way by influencing the attitude or subjective norms. Fishbein and Ajzen (1975) refer to these factors as being external variables. These variables can be, for example, the characteristics of the tasks, the interface or the users, the type of development implementation and the political influence, and the organizational structure. According to Sheppard *et al.* (1998), a meta-analysis on the application of TRA showed that this model can produce good predictions of choices made by an individual when facing several alternatives.

THEORETICAL FRAMEWORK

The theoretical framework used in this study is shown in the Fig.1.

Hypothesis Development

The following hypotheses are developed based on past literature.

- H1: Consumers will choose which private medical centre they want to go based on waiting time.
- H2: Consumers will choose which private medical centre they want to go based on its environment.
- H3: Consumers will choose which private medical centre they want to go based on the reputation of consultants.
- H4: Consumers will choose which private medical centre they want to go based on the facilities offered.
- H5: Consumers will choose which private medical centre they want to go based on cost.

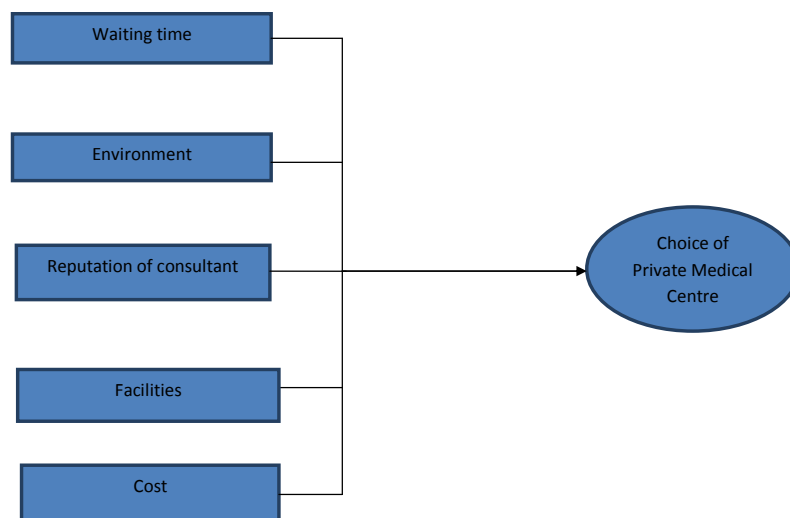


Fig.1: The theoretical framework

METHODOLOGY

The samples in this study focused on the customers of private medical centre (no matter light, medium or heavy users) of this choosing category. Serdang and Kajang areas were used as a sample frame. These areas were chosen because there are several private medical centres that are operating in the area such as Kajang Plaza Medical Centre, KPJ Health Care Kajang, Kajang Medical Centre Sdn. Bhd., and Kajang Specialist Maternity and Surgery Sdn. Bhd. Convenience sampling was used in this study. Data were collected using a structured questionnaire that was personally administered.

Measuring Instrument

There are five factors used for measuring the choice of private medical centre in this study; these are waiting time, environment, reputation of consultants, facilities and cost. There were 8 questions on waiting time and environment each, 9 questions on reputation of consultants, and 7 questions on facilities and cost. The respondents responded on a scale which ranged from 1 (strongly disagree) to 5 (strongly agree). All measures for the construct were taken from some previous studies (see Angelopoulou *et al.*, 1998; Appleby *et al.*, 2003; Choi *et al.*, 2003), which were carried out from a service perspective. Dependent variables in this study (waiting time, environment, reputation of the consultant, facilities and cost) were operationalized through category 1, which represents choosing the private medical centre and 0 for otherwise.

Analysis of Data

Data in this study were analyzed using SPSS. Statistical tools used are frequency analysis, factor analysis, reliability analysis and regression analysis.

FINDINGS

From the total of 155 respondents taking part in this study, majority of them are females (73%), of Malay ethnicity (78%), not married (71.6%) and aged between 25-35 years (67%). It is interesting to note that almost half of the respondents are working in the private sector (41%), and 47% are earning between RM 1000 to RM 3000. More than half (58.1%) of the respondents are degree holders.

TABLE 1
Profile of the Respondents

Variables	Frequency	%
Marital status		
Not married	44	28.4
Married	11	71.6
Age (years)		
24 and below	26	16.8
25-34	104	67.1
35-44	16	10.3
45-54	9	5.8
Gender		
Male	42	27.1
Female	113	72.9
Ethnic		
Malay	121	78.1
Chinese	25	16.1
Indian	9	5.8
Education		
SPM	23	14.8
Diploma	20	12.9
STPM	9	5.8
Degree	90	58.1
Master	13	8.4

TABLE 1 (continue)

Occupation		
Government Sector	18	11.6
Private Sector	64	41.3
Self-Employed	31	20
Others	42	27.1
Income		
RM1000 and below	31	20
RM1001 - RM3000	73	47.1
RM3001 - RM5000	43	27.7
RM5001 - RM7000	6	3.9
RM7001 and above	4	1.3

For the reliability of the variable used, all were found to have shown satisfactory Cronbach Alpha values between 0.632 and 0.805 (refer to Table 2). Thus, all the variables (waiting time, environment of the medical centre, reputation of the consultants, facilities and cost) are considered as reliable and the questions can be trusted to determine the findings of this study.

TABLE 2
Reliability analysis, Means and Standard Deviation of the Study Variables

Variables	Number of items	Cronbach Alpha
Waiting Time	8	0.805
Environment	8	0.793
Reputation of consultant	9	0.632
Facilities	6	0.800
Cost	7	0.732

Note: All items use a 5 point Likert scale (1= strongly disagree, and 5 = strongly agree)

Multiple regression was used to test all the hypotheses postulated in this study. The results in Table 3 show the relationship between all the factors and the choice of private medical centre. The model was found to be able to explain 19.6% of the

total variance in choice of the private medical centre ($R^2=19.6$, $p\text{-value}<0.01$). In addition, there are three dimensions which have positive influence on the choice of private medical centre, namely, environment of medical centre ($\beta=0.344$, $p\text{-value} < 0.05$), facilities in the medical centre ($\beta = 0.356$, $p\text{-value} < 0.05$), and cost charges of medical centre ($\beta = 0.331$, $p\text{-value} < 0.05$). The positive relationship between environment and the choice of private medical centre indicates that Malaysian consumers will choose a medical centre that provides up-to-date equipment, a conducive treatment room, and modern furnishing arrangement. This is supported by Miller (2006) who found that comfortable environment is important in order to attract customers to choose a medical centre because the better environment will make them more satisfied and interested in choosing the medical centre. As for the positive relationship between facilities and choice of private medical centre, it indicates that the convenient location of a medical centre, parking space, amenities and facility for visitors will make customers feel happy and satisfied with the medical centre. Costs also have a positive relationship with the choice of private medical centre among Malaysians. They prefer going to private medical centre that impose low cost.

From Table 3, there is no significant relationship between the choice of medical centre and waiting time ($P=0.459$, $\alpha = 0.005$). Meanwhile, the negative relationship ($\beta= - 0.083$) indicates that when customers need to wait to obtain the services at

medical centre, it will negatively influence the choice of private medical centre. This result is supported by Lothar (2008), which shows that Malaysian culture is more to polychronic type. It means that the maximum waiting time for Malaysian is only about 15 minutes to 20 minutes when they have an appointment with other people. Hence, a medical centre should ensure that their customers do not have to wait to get services from the staff more than that time range because it can cause customers to lose their patience. The table above also shows that there is no significant relationship between the choice of medical centre and the reputation of consultants ($P=0.444$, $\alpha=0.05$). The negative relationship ($\beta=0.058$) indicates that the consultant factors such as experienced consultant, consultants allowing patients to ask questions, the ability of consultants to remember patients' names and faces, etc. negatively influence the choice of private medical centre among Malaysians. This finding is supported

by Baldwin (2005) who mentioned that certain hospitals are favoured because of their ability to attract potential patients due to certain factors such as waiting time, convenience, certainty of treatment dates and the availability of transport.

DISCUSSION

The objective of this study is to investigate the effects of waiting time, environment, reputation of consultant, facilities and cost on the choice of private medical centres among Malaysian consumers. The statistical results show that three factors, namely, environment, facilities and cost have significant impacts on consumers' choice of private medical centre. Other factors, waiting time and reputation of consultants, have negative effects on the choice of private medical centre. Interestingly, the results of this study contradict with the previous studies carried out in different settings. For example, Coulter *et al.* (2004) revealed that

TABLE 3

The Regression analysis of waiting time, environment, reputation of consultant, facilities and cost with choice of private medical centre.

	R	R ²	Std. error Estimate	Sig. F	
	0.443	0.196	0.22407	0.000	
	Unstandardized coefficient Beta	Std. Error	Std. coeff Beta(β)	t	Sig.
1 (Constant)	3.548	0.247		14.353	0.000
Waiting time	-0.039	0.053	-0.083	-0.742	0.459
Environment	0.185	0.062	0.344	3.007	0.003
Consultant	-0.037	0.049	-0.058	-0.767	0.444
Facilities	-0.188	0.053	0.356	-3.566	0.000
Cost	0.172	0.051	0.331	3.396	0.001

Note: dependent variable choice of private medical centre

as waiting time starts to decrease, other factors become more important to patients such as the facilities and car park. Coulter *et al.* (2004) found that a patient tended to choose a hospital based on how well known it was. The findings of this study also revealed and identified three variables (environment, facilities and costs) as playing a role in the choice of a private medical centre.

RECOMMENDATIONS FOR PRIVATE MEDICAL CENTRE

Recommendation 1 – Give a reasonable charge to patient

This study shows the positive relationship between costs with the choice of private medical centre. Majority of the respondents agreed that they would consider the cost factor when choosing a medical centre to go to. Most of them stated that they would check the cost charges first before they opt for the medical centre that they want to go to. For that reason, private medical centre should ensure that they charge reasonable prices because customers will see this as an important criterion in choosing which medical centre to go.

Recommendation 2 – More improved environment and comfortable environment to induce more patients

This study found that the environment factor has a positive relationship with the choice of a medical centre. In particular, patients of private medical centre require a more comfortable and conducive environment

as they are ‘paying’ customers. For this reason, this study recommends that medical centre should provide a relaxing and more peaceful ambience that will definitely de-stress patients and thus, hastening the healing process.

Recommendation 3 – Improve Facilities to Attract More Patients, Upgrade to Higher Standard Facilities

From the profile in this study, it was found that patients who came to the private medical centre are from the middle and high- income bracket⁴. Thus, higher standard of facilities are expected from the private medical centre. The patients are expecting their money’s worth. One of the recommendations from this study is on parking spaces. It is a big issue for consumers of government hospitals. The management of the private medical centre must provide ample parking spaces for the patients and the visitors as this will ease the flow of users to the medical centre. Besides that, the management of private medical centre has to upgrade their basic amenities. For example, walkways and corridors should be well-lit, while signage or instructions have to be clearly displayed to avoid confusion and stress among consumers. This study also recommends that treatment rooms in private medical centre must be given top priority, as it is a basis for choosing a medical centre. Therefore, medical centre must be equipped with sophisticated and most up-to-date machine and equipment.

⁴ Please refer Table 1 (page 8)

LIMITATION OF THE STUDY AND FUTURE RESEARCH DIRECTION

The current research endeavor also has several limitations. The study was conducted using only two sample frames; thus, it is recommended that future researchers take sample frame of other categories in Malaysia so as to enable them to conduct a comparative analysis across diverse area classifications. Researchers also can compare factors among urban and rural areas. In order to have more accurate findings, longitudinal research design should be considered in future investigations. Future researchers should also observe the effects of the demographic factors on the choice of private medical centres among Malaysians.

REFERENCES

- Appleby, J., Harrison, A., & Devlin, N. (2003). *What is the Real Cost of More Patient Choice?* King Fund, London.
- Baldwin, E. (2005). Patient choice; pick and mix. *Health service Journal*, 115(5940), 38.
- Borneo Post Online. Retrieved on April 30, 2012, from <http://www.theborneopost.com>.
- Choi, K. Cho, W., Lee, S., Lee, H., & Kim, C. (2004). The relationship among quality, value, satisfaction and behavioral intention in health care provider choice: a South Korean study. *Journal of Business Research*, 57, 913-21.
- Choi, K., Cho, W., Lee, S., Lee, H., & Kim, C. (2005). The service quality dimensions and patients satisfaction relationship in South Korea: Comparison across gender, age and type of service. *Journal of Service Marketing*, 19(3), 140-149.
- Cole, A. (2004). Better than never. *FM World*, pp.18-19.
- Coulter, A., Henderson, L., & Le Maistre, N. (2004). Patients' experience of choosing where to undergo surgical treatment. *Picker Institute Europe*. Oxford.
- Donabedian, A. (1987). Commentary on some studies of the quality of care. *Health Care Financing Review-Annual Supplement*, pp.75-85.
- Finlayson, B. (2003, March 1). Counting he smiles: morale and motivation in the National Health Service. *King Fund Bookshop*, pp 1 (available at: www.Kingsfund.org.uk).
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Gilbert, A., Churchill, J. R., & Surprenant, C. (1982). Expectation and normin models of consumer satisfaction", *Journal of Marketing Research*, 19, 491-504.
- Hasin, M. A. A., Seeluangawatt, R., & Shareef, M.A. (2001). Statistical measure of customer satisfaction for health care quality assurance: A case study. *International Journal Health Care Quality Assurance*, 14(1) 6-14.
- Expart Forum. (n.d.). *Healthcare in Malaysia*. Retrieved on May 2012 from <http://www.expartforum.com/articles/health-care-in-malaysia.html>.
- Allianz Worldwide Care. (n.d.). *Healthcare in Malaysia*. Retrieved May 2012, from <http://www.allianzworldwidecare.com/healthcare-in-malaysia>.
- Chiam, A. (2010, December 14). Retrieved May, 2012, from <http://www.theborneopost.com>.
- Jabnoun, N., & Chaker, M. (2003). Comparing the quality of private and public hospitals, *Managing Service Quality*, 13(2), 290-9.

- Juran, J. M. (Ed.). (1988). *Quality Control Handbook*. Eaglewood Cliff, NJ: Practise-Hall.
- Kui-Son, C., Woo-Hyun, C., Sunhee, L., Hanjoon, L., & Chankon, K. (2004). The relationships among quality, value, satisfaction and behavioral intention in health care provider choice: A South Korean study. *Journal of Business Research*, 57, 913-921.
- Leonardi, M. J., McGory, M. L., & Ko, C. Y. (2007). Quality of care issues in colorectal cancer. *Clinical Cancer Research*, 13, 6897.
- Lim, P., & Tang, N. (2000). A study of patients' expectations and satisfaction in Singapore Hospitals. *International Journal of Health care Quality Assurance*, 13(7), 290-9.
- Liyanage, C., & Egbu, C. (2005). Controlling healthcare associated infections (HAI) and the role of facilities management in achieving quality in healthacare: a three dimensional view. *Facilities*, 23(5/6), 194.
- Miller, L., & May, D. (2006). Patient choice in the NHS: how critical are facilities services in influencing patient choice? *Facilities*, 24(9/10), 354-64.
- MORI. (2004). *Patience choice in Themes Valley: Research study conducted for Themes Valley strategic health authority*. Retrieved on November 1, 2012, from www.tvsha.nhs.uk/papers/MORIreport.pdf.
- Razzou, N., Seiz, V., & Webb, J. M. (2004). Information that consumers want most? *Journal of Health Care marketing*, 16(Spring), 45-50.
- Jabnoun, N. & Mohammad Chaker. (2003). Comparing the quality of private and public hospitals. *Managing Service Quality*, 13(4), 290-299.
- Parasuraman, A., Zeithmal, V., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49, 41-50.
- Rose, L. E, Mallinson, R. K., & Walton-Moss, B. (2004). Barriers to family care in psychiatric settings. *Journal of Nursing Scholarship*, 36(1), 39-47.
- Sheppard, B. H., Hartiwick, J., & Warshaw. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, 15, 325-343.
- Teas, R. K. (1993). Consumer expectations and the measurement of perceived service quality. *Journal of Professional Services Marketing*, 8(2), 33 - 53.
- Todd, S., Steela, A., Douglas, C., & Douglas, M. (2002). Investigation and assessment of attitudes to and perceptions of the built environment in NHS trust hospital. *Structural Survey*, 20(5), 182.
- Yong, T. K. (2000, June 18). Public versus Private Hospital. *New Strait Times*.

How Green is Your Supply Chain? Evidence from ISO 14001 Certified Manufacturers in Malaysia

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ABSTRACT

Extraordinary current consumption in the developed countries as well as in the Asian region, as a result of rapid industrialization, has increased the levels of energy and material consumption. This has posed negative consequences on the natural resources and the environment. The question of how to make economic and infrastructure growth environmentally and socially sustainable, so that it can continue to benefits people while conserving the natural assets and ecosystem continues to challenge policy makers, industry, and consumers. This research investigates the level of green supply chain management (GSCM) practices adopted by ISO 14001 certified manufacturers in Malaysia. Based on the data collected through the questionnaire survey, it was found that most manufacturers have not yet fully adopted the green practices within their supply chain activities. Only 17 percent of the total respondents were proactive adopters of the GSCM practices. The internal environmental practices have been found to be the top GSCM practices, followed by eco-design and investment recovery. The least common GSCM practice is reverse logistics. The study offers implications to both theory and practice.

Keywords: Green supply chain, practices, environment, manufacturing firms, Malaysia

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INTRODUCTION

Rapid economic growth, technological revolution and physical development all around the world has contributed to environmental deterioration. Hazardous wastes are generated by nearly every industry and manufacturing industry is not excluded

from contributing to the deterioration of environmental sustainability. In Malaysia, for instance, there had been an increase in the number of water pollution point sources recorded by the manufacturing industry in year 2010 as compared to the year 2006. In fact, the highest composition of water pollution is recorded from the manufacturing industry, where manufacturing industry contributes almost half of the water pollution (Department of Environment Annual Report, 2006-2010). This has yet to include the negative environmental impacts from the products produced and the technology used by these manufacturers.

Business organizations have been considered as the major contributors to the environmental problems (Eltayeb *et al.*, 2010). Therefore, firms should realize the importance of adopting green technology into their operations since the green technology is capable of achieving less waste and minimize the negative impacts to the environment. The involvement in the green practices by manufacturers is no longer a “yes” or “no” answer, but has become likely as “why” and “how” questions (Nunes, 2008). Nowadays, major leading companies from the western region have urged the paradigms of sustainable development and corporate environmental responsibility. According to Sarkis (2003), a few world-class companies have consistently extended far beyond just only complying with the environmental regulations, but also taking up green practices as their preferences. In fact, green initiatives are acknowledged as a value added for firms and provide new

opportunity for competition (Hansmann & Claudia, 2001).

Firms are expected to implement strategies to reduce the environmental impacts produced by their products and services because of the increasing pressures for environmental sustainability (Sarkis, 1995). According to Wisner *et al.* (2005), customers are increasingly demanding to know where the products come from, how they are made and distributed, and what impacts future legislations will have on the products they buy. Thus, organizations are continuously trying to come out with initiatives which can help them to achieve environmental sustainability. Success in handling environmental management issues may provide new opportunities to increase competitiveness and new ways to add value to core business programmes (Hansman & Claudia, 2001). It is necessary for the industry to react and transform their way of production towards more sustainable and environmental friendly approaches.

As part of green technology, green supply chain management (GSCM) is becoming an important factor that can close the loop of existing traditional supply chain approach. By extending and enhancing the green initiatives throughout the upstream and downstream of supply chain activities, it could provide better performance outcomes to both the firms and the environment. Complying with tight and strict environmental regulations, addressing the environmental concerns of customers, and mitigating the environmental impact of the production and service activities not only

enable firms to improve the environmental performance, but this concept has been recognized as a key strategic issue to enhance the competitiveness of organization (Bacallan, 2000). Green supply chain management practices such as cleaner production, environmental management system and eco efficiency initiatives have been implemented as commitments by the industry players to go green in their operations (Zhu, Sarkis, & Geng, 2005). GSCM has also become a double-barrel method in lowering environmental risks without neglecting the business objectives of generating maximum profit (van Hock & Erasmus, 2000).

As compared to developed countries, firms in developing countries like Malaysia are still in the learning process of how to incorporate the green management practices in their daily operations. As a matter of fact, the concept of green supply chain is relatively new in Malaysia (Wooi & Zailani, 2010). As issues surrounding the environment deterioration are dynamic and still revolving, green supply chain adoption in terms of motives, type of practices, and number of adopting firms may be different today compared to ten years ago or in the future. Therefore, a constant study is needed to fully understand and update knowledge in this area. As such, the core question in this paper is: "How green is the supply chain of manufacturers in Malaysia?" In more specific, this paper outlines the characteristics of green supply chain practices and measures the level of practices among manufacturers in Malaysia.

Given the rising environmental issues faced by the developing countries, this paper presents empirical evidences of GSCM practices among manufacturers in Malaysia. This paper also reviews past research conducted in the area of green supply chain management. The discussion of research method is then presented, followed by the data analysis, and discussion of research findings. It concludes with managerial implications that can benefit both practitioners and policy makers.

LITERATURE REVIEW

Supply chain management (SCM) has emerged as an extremely important operational approach for manufacturers due to today's competitive world that is driven by globalization. The philosophy of efficient supply chain is not only applicable in the manufacturing industry, but also to industries like agriculture (Nitschke & O'Keefe, 1997; Folkerts & Koehorst, 1997), retail (Leonard & Cronan, 2003), food (Robson & Rawnsley, 2001), and healthcare (Hazlinna & Porter, 2009). This area of interest has become very popular due to an increasing number of publications, programmes and conferences relating to the topic by practitioners and academia (Burgess, Singh & Koroglu, 2006). Li, Ragu-Natahn and Rao (2006) conclude that SCM is now recognized as a valuable asset for organizations in creating competitive advantage and better performance. To become more competitive, organizations have started to realize that it is not enough to improve efficiency only within the

organization, but also the whole supply chain has to be made competitive (Li *et al.*, 2005).

According to Beamon (1999), due to the changes in environmental requirements affecting manufacturing operations, increasing attention is being given to developing environmental management (EM) strategies for the supply chain. Changes in the state of the environment, leading to subsequent public pressure and environmental legislation have necessitated a fundamental shift in manufacturing business practices (Beamon, 1999). In this context, Green *et al.* (1996) asserted that

green supply refers to the way in which innovation in supply chain management and industrial purchasing may be considered in the context of environment.

According to Yu and Soon (2008), GSCM integrates the consideration of environmental impacts and resource efficiency, and it is based on the green management theory and supply chain management technology that involves suppliers, manufacturers vendors, and users in the whole supply chain. Meanwhile, developing a green supply chain strategy involves collecting and analyzing environmental regulations and

TABLE 1
Selected dimensions of the green supply chain practices

Researcher (Year)	Green Supply Chain Practices
Zhu <i>et al.</i> (2007)	Green purchasing, eco design and customer cooperation
Lamming and Hampson (1996)	Vendor assessment, total quality management, lean supply, collaborative supply strategies
Rogers and Lembke (2001)	Reverse logistic
Zsidisin and Siferd (2001)	Green purchasing
Hu and Hsu (2010)	Supplier management, product recycling, organization involvement and life cycle management
Holt and Ghobadian (2009)	Internal environmental management practices, logistics, supplier assessment, green procurement, supplier education and industrial network
Beamon (1999)	Eco design and reverse logistics
Eltayeb <i>et al.</i> (2010)	Eco design and reverse logistics
Hamner (2006)	Green purchasing
Helms and Hervani (2006)	Reverse logistic
Min and Galle (2001)	Green purchasing
Theyel (2006)	Customer and supplier relations
Bowen <i>et al.</i> (2006)	Reduce waste, strategic supplier, vendor assessment, clean technology, and supplier scoring
Zhu and Geng (2006)	Green purchasing
Sarkis (2003)	Design for environment, life cycle analysis and reverse logistics
Rao (2006)	Green purchasing

customer surveys from each of the supply chain locations; discussing the relevant environmental issues with the procurement, engineering and quality control departments at each firm; developing the green policy; communicating them to customers and suppliers along the supply chain; and then managing the programme to assure compliance with the policies (Wisner, 2005).

In an effort to understand more about SCM, some previous studies focused on developing the supply chain management practices construct. Basically, without a proper operationalization SCM-related construct, researchers cannot promote the benefits and success of the SCM practices (Min & Mentzer, 2004). Table 1 presents some of the green supply chain practices that have been widely highlighted and discovered in the literature.

A review of the literature indicates that past research in the area of GSCM has addressed different dimensions of the green supply chain practices. For instance, Zhu and Sarkis (2004) classified the green supply chain practices in terms of internal and external activities. Internal activity are top management support, organization environmental policy, investment recovery, and green eco design. Meanwhile, external activity related to the GSCM practices are green purchasing, reverse logistic, cooperations with customers to meet green requirements, and collaboration R&D with stakeholder and supplier evaluation and selection. Based on the literature review and field data from the onsite interviews with the practicing firms, dimensions of the green

practices considered in the present study are cooperations with suppliers in green purchasing, cooperation with customers, eco design, reverse logistic, investment recovery, and internal environmental practices. The following section is dedicated to a better understanding of each green supply chain dimensions used in this study in assessing how green is the supply chain of manufacturers in Malaysia.

Cooperation with Customers and Suppliers in Green Initiatives

Cooperation with customers and suppliers with regards to the environmental issues has been defined by previous researched as external GSCM practices. Cooperation with customers in reducing environmental hazard includes involving customers with various activities such as during product eco-design, cleaner production, packaging, and less energy option during product transportation. Meanwhile, key factors for environmental purchasing are providing design specification to suppliers including environmental requirements for purchased items, cooperation with suppliers for environmental objectives, environmental audit for supplier's internal management and suppliers' ISO14001 certification (Zsidisin & Hendrick, 1998). The recent emergence of green purchasing as an important participant in the corporate sustainable enterprise debate is the result of the convergence of several developments that have highlighted the purchasing role in effective environmental management (Handfield *et al.*, 2002). By incorporating

the green principle into purchasing activity, companies can provide design specifications to suppliers which include environmental requirements for green purchased items needed. Moreover, this will assist them in deciding which suppliers to collaborate with for materials, equipment, parts, and services that support environmental goals (Lamming & Hampson, 1996; Zsidisin & Hendrick, 1998).

Eco-design

No matter where in the product lifecycle a product or process lies, most of the environmental influence is “locked” in at the design stages when materials and processes are selected and product environmental performance is largely determined (Lewis & Gretsakis, 2001). Probably the strongest testament to the greening of the international market is the expanding number of companies seriously addressing environmental aspects as parts of their product development process (Lewis & Gretsakis, 2001). Eco-design includes designing product for reduced consumption of both material and energy, designing product which enables reuse, recycle, and recovery of material and component parts, and designing product to avoid or reduce the usage of harmful materials and harmful processes. By incorporating the green issue into new product development, green design is increasingly considered as a systematic method for companies to reduce the environmental impact of their products and processes while simultaneously cutting costs and increasing product marketability

(Berchicci & Bodewes, 2005). Xerox designers, for instance, choose a minimal number of materials from the Xerox material environmental index to simplify the eventual segregation of materials and to avoid the use of hazardous materials (Tsoufas & Pappis, 2006).

Reverse Logistic

Beside all the practices that have been discussed, another activity that can be classified as a green practice within the supply chain is reverse logistics. Lambert and Stock (1981) define reverse logistic as “going the wrong way on a one-way street because the great majority of product shipments flow in one direction”. A similar definition given by Murphy and Posit (1989) explains reverse logistic as the movement of goods from consumers to a producer in a channel of distribution. Carter *et al.* (1998) narrowed the scope of definition by asserting that reverse logistic can be thought of as the reverse distribution of materials/products among the supply chain members. Activities that can be included as reverse logistics or green logistics include remanufacturing, refurbishing, recycling, landfill, repackaging, returns processing, and salvage. Utilizing reusable containers that avoid the use of one-way cartons made of cardboard can also be categorized as both green and reverse logistics (Rogers & Tibben-Lembke, 2001). SIRIM, as the certification authority in Malaysia, agrees that the effort of a few companies in the country that collected wastes and sent them to Japan, US or Europe for recycling as a

reversed logistic in the green supply chain (Eltayeb *et al.*, 2010a).

Investment recovery and Internal Environmental Practices

In China, investment recovery is considered as one of the emerging environmental practices with significant internal and external influences on GSCM. The Chinese government's effort to improve investment recovery and better design of processes and systems has changed its policies from a focus on resource subsidies to levying taxes on some resources such as coal and natural gas. At the same time, both the United States and European enterprises have considered investment recovery as a critical aspect for GSCM (Zsidisin & Hendrick, 1998), which may occur at the back end of the supply chain cycle. Activities that can be included as investment recovery includes sale of scrap and used materials, sale of excess capital equipment, and sale of excess inventories. Close to investment recovery is the internal environmental practices within firms. Activities under internal environmental practices include actively managing disposal of packaging wastes, actively managing solid wastes, and adopting energy efficiency measures for lighting and heating.

RESEARCH METHODOLOGY

Data were collected from the ISO 14001 certified manufacturing firms registered as members of the Federation of Malaysian Manufacturers (FMM). The ISO 14001 certified companies were selected because

they were expected to adopt the green initiatives within their operations (Eltayeb *et al.*, 2010; Sroufe, 2009; Zhu *et al.*, 2007). A total of 378 manufacturers were certified with ISO 14001 under the FMM directory as of 2011. This study used self administered questionnaire survey to gain relevant information from the respondents. The survey was conducted using mail questionnaire in order to cover wide geographical area in lesser time and minimum cost. Before the questionnaires were sent, phone calls were made to confirm their postal addresses and the names of the persons in-charge. SIRIM Malaysia, as the certification organizations for ISO 14001, appoints Environmental Management Representatives (EMR) to act as a link between the certification organization and the certified firms (Eltayeb *et al.*, 2010). EMR acts as the representative between the firms and SIRIM as the certification body in various related environmental issues and matters. They can be from any department but EMR is usually a person from environmental, safety and health, quality control or operation department. In most cases, EMR is a person who is a part of the management team and involved in the overall operations of the company. The surveys were addressed to EMR in each firm.

The questionnaire used in this study was compiled from various validated instruments from the literature review, but some modifications were made to suit its context and purpose. Measurements of the variables in this study were based on the past

research by Zhu, Sarkis and Geng (2005), Holt and Ghobadian (2009), and Rogers and Tibben-Lembke (2001). In this study, green firms supply chain practices were measured by six dimensions, namely; green purchasing, cooperation with customer, investment recovery, eco design, internal environmental practices and reverse logistic. The study used a 5-point Likert scale for all dimensions ranging from 1 (not considering it) to 5 (implementing successfully).

At the end of the data collection period, a total of 112 responses were usable for data analysis. Reliability analysis was conducted to ensure that the measures of variables have internal consistency across time and across the various items that measure the same concept or variable (Sekaran, 2003). Initial reliability test was carried out on all the variables and the results indicted that the values are all above the recommended minimum of 0.7 (Nunally, 1987). Table 2 provides the values of Cronbach's alpha for the variables. It appears from the table that the values of Cronbach's alpha range between 0.702 and 0.860. These values exceed the minimum threshold of 0.70. Thus, it can be concluded that the measures have an acceptable level of reliability.

RESULTS AND DISCUSSIONS

The characteristics of the responding firms are presented in Table 3. The table shows that the highest number of responses was received from the electrical and electronic manufacturers, with 25% of the total response. This is expected since the electrical and electronics industry is the largest industry in Malaysia. More than half (58.9%) of the firms have been established for more than 20 years. Meanwhile, majority of the firms (69.6%) are public listed companies and almost all (95.5%) are ISO 9001 certified firms.

Table 4 shows descriptive statistics of the firms in terms of size (annual sales turnover and number of employees). The results indicate that half of the firms are considered as large firms (more than RM 25 million sales turnovers). Meanwhile, in terms of firm size by the number of employees, majority of them (76.8%) have more than 100 employees.

Table 5 indicates that manufacturers in Malaysia have initiated or adopted some green supply chain management practices. The scale used in measuring the green supply chain practices implementation ranges from 1 (not considering it) to 5 (implementing

TABLE 2
Cronbach's Alpha for all the variables

Variables	Number of Items	Cronbach's Alpha (α)
GSCM Practices	25	0.897
Green Purchasing	5	0.842
Eco Design	3	0.860
Reverse Logistic	5	0.784
Internal Environmental Practices	5	0.702
Investment Recovery	3	0.830
Cooperation with Customers	4	0.825

successfully). Internal environmental practice was found as the top GSCM practice implemented by the manufacturers in Malaysia, with the mean score of 4.37, followed by eco-design (mean score of 3.85) and investment recovery (mean score of 3.83). The least common GSCM practice implemented by manufacturing firms in Malaysia is reverse logistics (mean score of 3.18).

TABLE 3
Profile of the Respondents

Category	Total	(%)
Type of product manufactured	1	9
Agriculture products and machinery		
Chemical and adhesive products	8	7.1
Furniture and wood related products	2	1.8
Iron, steels products	13	11.6
Plastic products and resins	11	9.8
Stationeries	2	1.8
Automotive and components parts	9	8
Cement, concrete products	1	0.9
Footwear	1	0.9
Industrial and engineering products	8	7.1
Pharmaceutical, medical equipment, cosmetics, toiletries and household	4	3.6
Building materials and related products	2	1.8
Food and beverage products	2	1.8
Packaging, labelling and printing	13	11.6
Rubber products	4	3.6
Electrical and electronic products	28	25
Toy manufacturers	1	0.9
Others	2	1.8
Years of operation		
Less than 20 years	46	41.1
More than 20 years	66	58.9
Type of Ownership		
Local	4	3.6
Foreign and Local joint venture	53	47.3
Foreign based	55	49.1
Public Listed		
Yes	34	30.4
No	78	69.6
ISO 9001 certified		
Yes	107	95.5
No	5	4.5
TOTAL	112	

T-test was conducted on the GSCM practices by firms' age and public listed status to determine whether the GSCM practices differ by their attributes. The results in Table 6 indicate that there are no significant differences in the GSCM practices by years of operation and status in stock exchange.

One-way ANOVA tests were used to determine if the GSCM practices differ by firm size (in term of the number of full-time employees), and type of ownership. Results in Table 7 disclose that there are significant differences in the GSCM practices among small, medium and large firms ($t = 3.533$, $p < 0.01$). The mean value shows that large firms implement higher level of GSCM practices than small firms. The data also indicate that the GSCM practices increase as the firm size increases.

The GSCM practices in this study also differentiate firms into an operational typology (proactive, high average, low average and laggards), as suggested by Bowen *et al.* (2001), Henriques and Sadorsky (1999), and Holt and Ghobadian

(2009). Based on the mean scores for all the GSCM practices, firms were classified into four groups; proactive, high average, low average and laggards (see Table 8). The results indicate that 17% ($n = 19$) of firms are in the proactive group, 39.3% ($n = 44$) in the high average, 23.2% ($n = 26$) in the low average and 20.5% ($n = 23$) are in the laggards group. Comparing these results with the recent study by Holt and Ghobadian (2009), which examined the green supply chain management practices amongst UK manufacturers, it was found that the statistics illustrates almost the same result. The majority (72%) of manufacturers in UK were at the average level in practicing green supply chain management, and this is the same in Malaysia with 62%. Other than that, only 17% of the manufacturers in Malaysia were categorized into the proactive group, with the mean score above 4.33 over 5.00. In the other categories, 23% of the manufacturers in Malaysia were in the laggard group while 20% of manufacturers in UK were at the same level (Holt & Ghobadian, 2009). Table 8

TABLE 4
Size of firms

Variables	Categories	Frequency	(%)
Number of Employees	Less than 50	8	7.1
	50 to 100	18	16.1
	101 to 500	51	45.5
	501 to 1000	19	17
	More than 1000	16	14.3
Annual Sales Turnover	Less RM 250 000	4	3.6
	Between RM 250 000 to RM 10 million	15	13.4
	Between RM 10 million to RM 25 million	34	30.4
	More than RM 25 million	59	52.7

summarizes that the green practices among the manufacturing firms in Malaysia are gaining momentum. Previous studies in the environmentally friendly management dimensions revealed that firms tended to act

in defensive compliance (Handfield *et al.*, 1997) and waste minimization or cleaner production (Sinding, 2000) when dealing with sustainable issues.

TABLE 5
Descriptive Statistics for the GSCM practices

No	Items	Mean	SD
	Green Purchasing	3.6	0.97
1	Provide design specifications for suppliers	3.75	1.18
2	Cooperation with suppliers for environmental objectives	3.84	1.09
3	Environmental audit for supplier	3.63	1.33
4	Supplier ISO 14001 certification	3.52	1.36
5	Second tier supplier environmentally practices evaluation	3.25	1.2
	Cooperation with customer	3.35	0.96
6	Cooperation with customer for eco design	3.27	1.21
7	Cooperation with customer for cleaner production	3.51	1.11
8	Cooperation with customer for green packaging	3.48	1.2
9	Cooperation with customer for using less energy transportation	3.15	1.24
	Investment Recovery	3.83	0.83
10	Sale of excess inventories	3.49	1.18
11	Sale of scrap and used materials	4.49	0.89
12	Sale of excess capital equipment	3.53	1.2
	Eco-design	3.85	0.97
13	Design of products for reduced energy consumption	3.74	1.14
14	Design of products for reuse, recycle material or components parts	3.89	1.12
15	Design of products to avoid or reduce use of harmful of products or their manufacturing process	3.9	1.14
	Internal Environmental Practices	4.37	0.59
16	Recycle toner cartridge in the office	3.96	1.29
17	Actively manage the disposal of packaging waste	4.49	0.81
18	Actively manage all the solid wastes	4.61	0.66
19	Energy efficiency measure are adopted for lighting and heating	4.22	0.8
20	Paper recycling in offices	4.56	0.68
	Reverse Logistic	3.18	1.01
21	Remanufacturing own products	3.17	1.5
22	Involve in refurbishing	3.17	1.37
23	Recycle own products	3.55	1.45
24	Involve in landfill disposal	2.95	1.63
25	Repackaging own products	3.07	1.47

TABLE 6
T-tests results for the green supply chain management practices on firms' attributes

Firm Attributes	Label	GSCM Practices			
		Mean	SD	t-value	Sig. Value
Firm Age	Less than 20 years	4.17	0.36	0.754	0.453
	More than 20 years	4.01	0.56		
Public Listed	Yes	3.82	0.59	1.543	0.128
	No	3.62	0.65		

TABLE 7
The ANOVA results for green supply chain management practices on firms' attributes

Firm Attributes	Label	GSCM Practices			
		Mean	SD	t-value	Sig. Value
Firm Size	Less than 50	2.96	0.76	3.533**	0.01
	50 to 100	3.62	0.59		
	101 to 500	3.77	0.61		
	501 to 1000	3.66	0.66		
	More than 1000	3.89	0.54		
Type of Ownership	Foreign Based	3.78	0.55	0.809	0.448
	Foreign and local joint venture	3.76	0.62		
	Federal/ state owned	3.61	0.67		
Annual Sales Turnover	Less than RM 250 000	3.52	0.67	1.63	0.187
	RM 250 000 - RM 10 million	3.42	0.67		
	RM 10 million - RM 25 million	3.62	0.62		
	More than RM 25 million	3.8	0.64		

TABLE 8
Operational typology of the manufacturing firms involved in green practices

Operational Typology	Mean score for GSCM activity	Frequency	%
Proactive	More than 4.33	19	17
High Average	3.69 to 4.33	44	39.3
Low Average	3.04 to 3.68	26	23.2
Laggards	Less than 3.04	23	20.5

DISCUSSION OF RESULTS

In recognition of the importance of environmental approaches in business, a growing number of firms in Malaysia have started to develop their green supply chain initiatives. A multi set of initiatives

relating to being environmentally friendly in managing the supply chain have been considered or implemented including green purchasing, investment recovery, eco-design, internal environmental practices, reverse logistics, and cooperation with

suppliers/customers. Throughout this study, it was found that most practices of green supply chain initiatives are internal environmental practices that are similar to the situation among the electronic industry in China (Zhu & Sarkis, 2006). Although there is an argument about whether internal environmental practices are related to green supply chain management or really just operational efficiencies that make economic sense (Holt & Ghobadian, 2009), the green practices adopted internally can be a stepping stone for other eco-friendly efforts along the supply chain.

Eco-design and investment recovery are the second highest activities that have been implemented by firms in adopting the green supply chain practices. Eco-design has been increasingly considered as a systematic method for firms to reduce environmental impacts, especially in new product development (Brezet & Hemel, 1997). Through eco-design or design for environment approaches, firms can identify the environmental aspects as parts of their product development process (Lewis *et al.*, 2001). This circumstance can lead to product marketability and cost cutting as customers nowadays show concern and prefer eco-friendly products (Sinnapan & Abd Rahman, 2011). Most firms are involved with investment recovery because it will generate additional income for them. This finding is supported by Zsidisin and Hendrick (1998) who mentioned that United States and European enterprises have considered investment recovery a critical aspect for the GSCM practices.

From the dimensions of manufacturers in Malaysia, they perceived investment recovery activities as an opportunity for them to reduce the excess and used materials/scrap and earn some money at the same time. Then, from the analysis, it was found that green purchasing is one of the favoured initiatives among manufacturer in Malaysia. Even though there are no regulations that dictate that firms must perform green purchasing activities in Malaysia (GPNM, 2003), firms tend to adopt it if they can see business benefits from these initiatives (Eltayeb *et al.*, 2010). However, the success of green purchasing activity can only be determined if purchasing personnel view the environmental issues as an opportunity rather than a threat (Bowen *et al.*, 2006). The green initiatives were unique practices because they go beyond normal practices and norms. For example, firms need to consider the negative environmental effect before they purchase any raw materials.

Cooperation with customers/suppliers is another perspective of green supply chain initiatives in Malaysia. The mean value from the analysis shows that many manufacturers in Malaysia are still considering this activity before implementing it. The application of cooperation with chain partners is also not yet fully initiated in China (Zhu *et al.*, 2005). The least implemented green initiative by manufacturing firms in Malaysia is reverse logistics. The data supported findings by Eltayeb *et al.*, (2010) which mentioned that only a few companies in Malaysia collect waste and sent it back to Japan, the United States or Europe for recycling purposes.

Tan and Kumar (2008) found that reverse logistics will be profitable to the firms if the return is in high volume. In addition to that, most of the firms admit they have less interest with reverse logistics because it will require more transportation and storage processes at a cost to them. This practice has less implementation among manufacturers because it will lead to more costs incurred such as transportation and logistics.

Comparison of green supply chain management practices among different firm attributes revealed that green practices have no significant differences between old and new firms, consistent to finding by Eltayeb and Zailani (2009). Thornhill and Amit (2003) argued that older firms tend to resist innovation such as green initiatives compared to conventional supply chain practices because the older firms have problems such as inability to adapt to environmental changes. However, this study fail to support this argument. This study found that there are significant differences in GSCM practices among small, medium and large firms. The mean values show that large firms implement more GSCM practices than small firms. The data also indicates that GSCM practices increase as the firm size increases. The result shows that a firm's size plays a significant role in determining operation of environmentally friendly practices as parallel with past studies that have been done in other countries (Gil *et al.*, 2001; Russo & Frouts 1997; Kenny & Lennox, 2000; Zhu *et al.*, 2007). Large firms not only have more financial resources and capabilities to tackle the

environmental issues, but they are also more visible to the customers. Thus, large firms usually will act in the right way to adopt green practices compare to smaller firms. However, the findings reported that there are no significant differences in green practices within different type of ownership and annual sales turnover.

CONCLUSIONS AND IMPLICATIONS

The findings from this study highlight several practical contributions and benefits to managerial and policy implementation. The major input from this research can be used by managers to enhance their knowledge and understanding of green supply chain management. With the knowledge and years of experience in the industry, managers can plan and develop specific models to improve their green supply chain management.

Another contribution underlined from this finding is categorization of responding firms into four operational typologies. The fact that only few proactive adopters and many low average and laggards adopters of green supply chain practices give cues for both managers and policy makers on the benchmark of green initiatives in Malaysia. For managers, they can use this level as the main information to build up their standard of practices and compete in the market especially when dealing in the international marketplace. As for policy makers, the typology indicated in this study can be a guideline to initiate and launch any assistance program or initiative for firms that already apply the green initiatives. Besides

that, regulatory bodies can also commence specific incentives for manufacturing firms that have already reached the minimum standard or level in green practices. A number of benefits offered by regulators will get manufacturers interested in adopting green supply chain management in their operations.

After the establishment of the Ministry of Energy, Green technology and Water in 2009, and then followed by a massive budget allocation provided by the Malaysian government, this is the exact time to evaluate the achievement of the government's efforts. How manufacturers perceive the importance of the government's efforts in promoting green practices can be determined through the relationship between green drivers and green practices. Serious action by the government will only be seen to be of value by the participation of manufacturers in aligning green practices and company operations. As world's manufacturing attention shifts to Southeast Asia, green supply chain management knowledge will become more critical (Rao, 2002), and thus, managers and policy makers must consider the findings of this research as a lesson learned and exploit the results as a preparation to become a world manufacturing hub.

REFERENCES

- Abdullah, A. R. (1995). Environmental pollution in Malaysia: trends and prospects. *Trends in Analytical Chemistry*, 14(5), 191-198.
- Bacallan, J. J. (2000). Greening the supply chain. *Business and Environment*, 6(5), 11-12.
- Beamon, B. M. (1999). Designing The Green Supply Chain. *Logistics Information Management*, 12(4), 332-342.
- Berchicci, L., & Bodewes, W. (2005). Bridging environmental issues with new product development. *Business Strategy and the Environment*, 14, 272-285.
- Bowen, F. E., Cousins, P. D., & Lamming, R. C. (2001). The role of supply management capabilities in green supply. *Production and Operations Management*, 10(2), 174-189.
- Bowen, F., Cousins, P., Lamming, R., & Faruk, A. (2006). Horses for courses: explaining the gap between the theory and practice of green supply. In J. Sarkis (Ed.), *Greening the Supply Chain*. London: Springer.
- Brezet, H., & van Hemel, C. (1997), *ECODESIGN—A Promising Approach to Sustainable Production and Consumption*. Paris: United Nations Publication, UNEP.
- Burgess, K., Singh, P. J., & Koroglu, R. (2006). Supply chain management: a structured literature review and implications for future research. *International Journal of Operations & Production Management*, 26(7), 703-729.
- Carter, C. R., & Ellram, L. M. (1998). Reverse logistics: a review of the literature and framework for future investigation *Journal of Business Logistics*, 19(1), 85-102.
- Eltayeb, T. K., Zailani, S., & Filho, W. L. (2010). Green business among certified companies in Malaysia towards environmental sustainability: benchmarking on the drivers, initiatives and outcomes. *International Journal Environmental Technology and Management*, 12(1), 95-125.
- Eltayeb, T. K., Zailani, S., & Ramayah, T. (2010). Green supply chain initiatives among certified companies in Malaysia and environmental sustainability: Investigating the outcomes. *Resource, Conservation, and Recycling*.

- Eltayeb, T. K., & Zailani, S. (2009). Going green through green supply chain initiatives towards environmental sustainability. *Operations and Supply Chain Management*, 2(2), 93-110.
- Folkerts, H., & Koehorst, H. (1997). Challenges in international food supply chains: vertical co-ordination in the European agribusiness and food industries. *Supply Chain Management*, 2(1), 11-14.
- Gill, M. J. A., Jimenez, J. B., & Lorente, J. J. C. (2001). An analysis of environmental management, organizational context and performance of Spanish hotel. *OMEGA*, 29(6), 457-471.
- Green, K., Morton, B., & Ne, S. (1996). Purchasing and environmental management: interaction, policies and opportunities. *Business Strategy and the Environment*, 5, 188-197.
- Hall, J. (2000). Environmental supply chain dynamics. *Journal of Cleaner Production*, 8(6), 455-471.
- Hamner, B. (2006). Effects of green purchasing strategies on supplier behavior. In J. Sarkis (Ed.), *Greening the Supply Chain*. London: Springer.
- Handfield, R., Walton, S. V., Sroufe, R., & Melnyk, S. A. (2002). Applying environmental criteria to supplier assessment: a study in the application of the analytical hierarchy process. *European Journal of Operational Research*, 141(16), 70-87.
- Hansmann, K. W., & Claudia, K. (2001). Environmental Management Policies. In J. Sarkis (Ed.), *Green Manufacturing and Operations: From Design to Delivery and Back*. Sheffield, UK: Greenleaf Publishing.
- Hart, S. L. (1997). Beyond greening: strategies for sustainable world. *Harvard Business Review*, 75, 66-77.
- Haszlinna, M. N., & Potter, A. (2009). Healthcare supply chain management in Malaysia: a case study. *Supply Chain Management: An International Journal*, 14(3), 234-243.
- Helms, M. M., & Hervani, A. A. (2006). Reverse logistics for recycling: challenges facing the carpet industry. In S. Joseph (Ed.), *Greening the Supply Chain*. London: Springer.
- Henriques, I., & Sadorsky, P. (1999). The determinants of an environmentally responsive firm: an empirical approach. *Journal of environmental Economics and Management*, 30(3), 381-395.
- Holt, D., & Ghobadian, A. (2009). An empirical study of green supply chain management practices amongst UK manufacturers. *Journal of Manufacturing Technology Management*, 20(7), 933-956.
- Hu, A. H., & Hsu, C-W. (2010). Critical factors for implementing green supply chain management practice: An empirical study of electrical and electronics industries in Taiwan. *Management Research Review*, 33(6), 586-608.
- King, A., & Lennox, M. (2001). Lean and green? An empirical examination of the relationship between lean production and environmental performance. *Production and Operations Management*, 10(3), 244-256.
- Kroon, L., & Vrijens, G. (1995). Returnable containers: an example of reverse logistics. *International Journal of Physical Distribution & Logistics*, 25(2), 56-68.
- Lambert, M. D., & Stock, J. R. (1981). *Strategic Physical Distribution Management*. Homewood: Irwin.
- Lamming, R., & Hampson, J. (1996). The environment as a supply chain management issue. *British Journal of Management*, 7, S45-S62.
- Leonard, L. N. K., & Cronan, T. P. (2003). Website retailing: electronic supply chain replenishment. *Journal of End User Computing*, 15(3), 45-55.
- Lewis, H., & Gretsakis, J. (2001). *Design and environment: a global guide to designing greener goods*. Sheffield: Greenleaf Publishing.

- MIDA. (2010). Malaysia: Performance of the Manufacturing and services sectors 2009. Retrieved 4 July, 2010, from <http://www.mida.gov.my/>
- Min, H., & Galle, W. (2001). Green Purchasing Practices of US Firms. *International Journal of Purchasing and Materials Management*, 10-17.
- Murphy, P. R., & Posit, R. P. (1989). Management of logistical retromovements: an empirical analysis of literature suggestions. *Transportation Research Forum*, 177-184.
- Nitschke, T., & O'Keefe, M. (1997). Managing the linkage with primary producers: experiences in the Australian grain industry. *Supply Chain Management*, 2(1), 4-6.
- Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.
- Nunes, B. (2008). Car manufacturers are going green... But, is it green enough to survive? *Journal of Manufacturing Technology Management*. Editorial paper, 19(8).
- Rao, P. (2007). Greening the supply chain: an empirical study for SMEs in the Philippine context. *Journal of Asia Business Studies*.
- Rao, P. (2006). Greening of suppliers/In-bound logistics-in the South East Asian context. In J. Sarkis (Ed.), *Greening the Supply Chain*. London: Springer.
- Robson, I., & Rawnsley, V. (2001). Co-operation or coercion? Supplier networks and relationships in the UK food industry. *Supply Chain Management Review*, 6(1), 39-48.
- Rogers, D. S., & Tibben-Lembke, R. S. (2001). An overview of reverse logistics practice. *Journal of Business Logistics*, 22(1), 271-282.
- Russo, M. V., & Fouts, P. A. (1997). A resource based perspective on corporate environmental performance and profitability. *Academy of Management Journal*, 40(3), 534-559.
- Sarkis, J. (1995). Manufacturing Strategy and Environmental Consciousness. *Technovation*, 15(2), 79-97.
- Sarkis, J. (2003). A strategic decision framework for green supply chain management. *Journal of Cleaner Production*, 11, 397-409.
- Sekaran, U. (2003). *Research Methods for Business*. USA: Wiley & Sons Inc.
- Sinnapan, P., & Abd Rahman, A. (2011). Antecedents of green purchasing behavior among Malaysian consumers. *International Business Management*, 5(3), 129-139.
- Sinding, K. (2000). Environmental management beyond the boundaries of the firm: definitions and constraints. *Business Strategy and the Environment*, 9(2), 79-91.
- Sroufe, R. (2009). Effects of environmental management system on environmental management practices and operations. *Production and Operations Management*, 12(3), 416-431.
- Tan, A., & Kumar, A. (2008). A decision making model to maximise the value of reverse logistics in the computer industry. *International Journal of Logistics Systems and Management*, 4(3), 297-312.
- Theyel, G. (2006). Customer and supplier relations for environmental performance. In J. Sarkis (Ed.), *Greening the Supply Chain*. London: Springer.
- Tsoufas, G. T., & Pappis, C. P. (2006). Environmental principles applicable to supply chains design and operation. *Journal of Cleaner Production*, 14(18), 1593-1602.
- Van Hock, R. I. & Erasmus (2000), From reversed logistics to green supply chains. *Logistics Solutions*, 2, 28-33.
- Walton, S. V., Handfield, R. B., & Melnyk, S. A. (1998). The green supply chain: integrating suppliers into environmental management

- process. *International Journal of Purchasing and Materials Management*, 34(2), 2-11.
- Wisner, J., Leong, G. K., & Tan, K.-C. (2005). *Principles of supply chain management*: South-Western College Publications.
- Wooi, G.C., & Zailani, S. (2010). Green supply chain initiatives: Investigation on the barriers in the context of SMEs in Malaysia. *International Business Management*, 4(1), 20 -27.
- Yu, B., & Son, C. (2008). *The green supply chain management based on SMEs* Paper presented at the IEEE International Conference on Automation and Logistics, Qingdao, China.
- Zhu, Q., & Sarkis, J. (2004). Relationships between operational practices and performance among early adopters of green supply chain management practices in Chinese manufacturing enterprises. *Journal of Operations Management*, 22, 265-289.
- Zhu, Q., Geng, Y., Fujita, T., & Hashimoto, S. (2010). Green supply chain management in leading manufacturers: Case study in Japanese large companies. *Management Research Review*, 33(4), 380-392.
- Zhu, Q., Sarkis, J., & Geng, Y. (2005). Green supply chain management in China: pressures, practices and performance. *International Journal of Operations & Production Management*, 25(5), 449-468.
- Zhu, Q., & Geng, Y. (2006). Green purchasing in Chinese large and medium-sized state-owned enterprises. In J. Sarkis (Ed.), *Greening the Supply Chain*. London: Springer.
- Zhu, Q., Sarkis, J., & Lai, K.-h. (2007). Green supply chain management: pressures, practices and performance within the Chinese automobile industry. *Journal of Cleaner Production*, 15, 1041-1052.
- Zsidisin, G. A., & Siferd, S. P. (2001). Environmental purchasing: a framework for theory development. *European Journal of Purchasing & Supply Management*, 7, 61-73.
- Zsidisin, G. A., & Hendrick, T. E. (1998). Purchasing involvement in environmental issues: a multi-country perspective. *Industrial Management & Data Systems*, 7, 313-320.

A Study on Organizational Culture, Performance, and Technological Adoption Behaviours of Malaysian Food-Processing SMEs

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ABSTRACT

The present study focuses on the technological adoption behaviour of Malaysian food-processing SMEs that have the intention to adopt advanced technology for their manufacturing operation, but yet to adopt it. In particular, it investigates the relationship between organizational culture and firm performance as well as the relationship between firm performance and technological adoption behaviour. As these firms have yet to adopt advanced technology, the present study investigates their technological adoption behaviour in terms of perception on benefits and obstacles towards the technology adoption. Based on the data collected through a questionnaire survey, it was found that some organizational culture (specifically, group culture, and rationale culture) enhanced performance, while others did not. Meanwhile, performing firms are more favourable in terms of their technology adoption behaviour compared to the less-performing firms. Performing firms perceived more benefits and fewer obstacles related to knowledge and people compared to the less-performing firms. The study offers implications for both theory and practice.

Keywords: Technology adoption, culture, performance, food processing industry, Malaysia

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INTRODUCTION

Small and medium-sized enterprises (SMEs), which are considered the lifeblood of modern economies, dominate the food industry in Malaysia. Some of these SMEs are venturing into the export market, automating their production processes and

undertaking their own product development. However, SMEs were the firms most affected by the economic downturn, as most of them had no capacity and capability to deal with a crisis of that magnitude (The Star, March 27, 2009). During the period of the Malaysian Third Industrial Master Plan (IMP3; 2006-2020), SMEs are expected to expand their capacities and enhance their competitiveness to meet domestic and international demands. In 2010, Malaysia's food exports amounted to RM18.2 billion and were exported to more than 200 countries (MIDA, 2010).

The food industry in Malaysia is dominated by small and medium-sized companies. There are a total of 548,307 (99.2%) SMEs currently operating in Malaysia. The four main categories of enterprises are processed foods (33%), wood products (24%), fabricated metal (15%), and building materials (9%) (Mohd Aris, 2007). More than 9,000 food-processing factories are operating in Malaysia, with 95% classified as small-scale. Food processing enterprises are generally perceived as agro-based industries, which have a strong backward linkage. These SMEs play a very important role in the Malaysian economy, especially in terms of generating employment. They also have a favourable impact on income distribution in the country (contributing to about 32% of GDP), and serve as a training ground for developing the skills of industrial workers and entrepreneurs (contributing to about 59% of total employment) (SME Annual Report, 2010/2011).

Small-scale food-processing enterprises show certain characteristics which distinguish them from their large-scale counterparts (Chee, 1986). Many small-scale food enterprises operate under a simple organizational structure with conventional business operations. Thus, the products they produce are often cheap and of low quality. Hence, in order to increase their competitive advantage and be able to compete globally, SMEs must have the capacity to produce products that are not only of good quality but inexpensive to produce. This can be accomplished through the adoption of improved technologies that can help SMEs to operate efficiently and optimize their resources.

Previous research, particularly in the SME industries, has provided a greater understanding of the benefits to organizations resulting from the adoption of new or advanced technologies. Amongst these benefits are improvement in accuracy, reduction in customer complaints, increase in efficiency, improvement in reliability, and improvement in overall performance (Liu & Barar, 2009; Swamidass & Kotha, 1998; Walters *et al.*, 2006). Although the benefits are widely documented, not all firms opt for advanced technology in their manufacturing operations (Agarwal, 1997). It is not known whether these firms remain non-adopters because they fail to see the benefits of these technological innovations or because they perceive too many obstacles in implementing them into their manufacturing operations. As implementation remains an essential issue,

an investigation of the perceived benefits of and obstacles to advanced technology adoption is a crucial initial step to further understand why some firms remain to hold their investment in advanced and new manufacturing technology.

Organizational culture has been found to be closely linked to attitude towards change, innovation and performance (Hilal *et al.*, 2009; Jantan *et al.*, 2003; Rashid *et al.*, 2003; Rose *et al.*, 2008). Each organization in Malaysia has a distinctive organizational culture (Rashid *et al.*, 2004), and different cultural types may either permit or limit change, innovation and performance. Therefore, it is important to investigate whether these differences affect organizational performance amongst SME manufacturers. Organizational culture has been an important theme in management and business research for the past few decades due to its potential to explain a range of organizationally and individually desired outcomes such as commitment, loyalty, turnover intent, satisfaction and performance (Chow *et al.*, 2001). Although organizational culture has been documented to explain many management issues, its use in technology adoption research has been limited (McDermott & Stock, 1999).

The purpose of the present study is to undertake an empirical and quantitative survey-based investigation to examine the relationship between organizational culture and firm performance, as well as the relationship between firm performance and technological adoption behaviour. The empirical data required for this investigation

were collected from potential or future manufacturing technology adopters among food-processing SMEs.

LITERATURE REVIEW

Technological Adoption Behaviour

In order for a new technology to be adopted successfully, it must fit within existing manufacturing and use infrastructures, meet perceived needs, be nominally affordable, and be convergent with important cultural ideals (Croissant, 2008). Each of these five elements presents different barriers to adoption in diverse cultural, particularly, international context. A technically functional technology that disrupts important social processes or relies on scarce resources will not be adopted (Croissant, 2008). Within the context of this study, 'adoption' refers to the stage at which a manufacturing technology is selected for use by an organization.

According to Moore (1991), not all individuals or organizations want to participate in technology adoption since it is a costly, lengthy, and risky process that may not produce the desired results even after a significant investment. Moore (1991) has listed five categories of participants in the technology adoption process, including: 1) innovators who tend to be experimentalists and interested in technology itself; 2) early adopters who may be technically sophisticated and interested in technology for solving professional and academic problems; 3) the early majority who are pragmatists and constitute the first half of the mainstream; 4) the late majority who

are less comfortable with technology and constitute the sceptical second half of the mainstream; and 5) laggards who may never adopt technology and may be antagonistic and critical of its use by others.

Perceived Benefits and Obstacles of Advanced Manufacturing Technology Adoption

One of the major thrusts on the technological adoption behaviour in the present study is the use of factors that are commonly cited in the literature as benefits in the implementation of advanced technology as perceived benefits for future adopters. McDermott and Stock (1999) stated that operational benefits are usually used to justify equipment purchases among upper management. Examples of operational benefits include increases in efficiency, productivity, quality, flexibility and cost reduction. According to Zairi (1992), operational benefits increase the organization's options in the marketplace and also provide advantages over competitors who have not implemented advanced technologies. Among the benefits expected from manufacturing technology were reduced production costs, consistent quality and the ability to meet delivery dates, as well as increased flexibility (e.g., the ability to offer a wide range of products or to more quickly develop new products) (Machuca *et al.*, 2004; Swamidass & Kotha, 1998; Walters *et al.*, 2006).

The usage of advanced technology calls for not only operational change but also managerial and organizational changes. In such changes, human factors

and skills in managing change play a role as important as that of the technology itself (Schroeder *et al.*, 1989). According to Dhar (1989), the majority of benefits do not come from the technology itself but from the organizational and methodological changes that must be made to support it. Examples of managerial or organizational benefits include improvements in communication, work flows, integration of work, lead time, and managerial control (Zairi, 1992). Ariss *et al.* (2000) also state that organizations aim to achieve management and organization benefits such as modernization of management philosophy, management exposure to modern technology, development of trainable and capable employees, and good management/labour relations. Other researchers who have identified managerial benefits in their studies include Chen and Small (1996), Sohal (1997), Zhao and Co (1997), Efstathiades *et al.* (1999), McDermott and Stock (1999), and Sabourin and Beckstead (1999).

Another outcome that may result from the usage of advanced technologies is competitive benefit, which includes market share, improved sales growth, and return on investment (Ramamurthy, 1995). Zairi (1998) suggested that advanced technology is introduced in order to gain not only economically but also strategically. Sohal (1997) stated that the most important benefits expected by firms implementing advanced technology are related to competitive advantage. Sohal and Maguire (1996) and Efstathiades *et al.* (1999) found

that the main reasons for the introduction of advanced technology are to increase competitive advantage and maintain the existing market. Walters *et al.* (2006) also found that the competitive benefit gained from adopting advanced technology is the development of new business.

Organizations are more likely to adopt new technologies when the investment is financially justified, that is, when the benefit from the adoption outweighs the costs. Investments may not be financially justified if the costs for equipment, software development, integration or financing are too high relative to the expected stream of benefits. Unsurprisingly, the lack of financial justification is the most commonly identified obstacle in the literature. For example, Sabourin and Beckstead (1999), in their study on the development of useful indicators of science and technology activities, revealed that one of the obstacles that impedes manufacturing technology implementation is the lack of financial justification. According to the authors, lack of financial justification includes high cost equipment, cost of capital, cost of integration, cost to develop software and small market share.

There are also obstacles related to personnel. Adoption of new technology may require a firm to increase the skill level of its employees. For example, Yusuff *et al.* (2005) found that a lack of suitable skills at a number of levels will not only slow down the absolute rate of technology adoption but also limit the range of applications that can be made due to the lack of trained manpower

to support the development of technology. Continuing education and training helps to ease the resistance to technology adoption (Beatty & Gordon, 1988). However, if firms choose to train, they may encounter resistance from employees who are unwilling to invest time to acquire new skills. Alternatively, if they intend to hire new staff, they may have problems finding and attracting individuals with the necessary skills. Successful adoption of manufacturing technology requires personnel to fully understand and direct factory automation projects to support the firm's strategic goals and objectives (Hottenstein & Casey, 1997).

Technology adoption is also influenced by the management competency. Management may be averse to risk taking. The introduction of a new technology into an organization may be met with resistance by the management itself, or the establishment may be unable to effectively evaluate the expected benefit from adoption. Ferraro *et al.* (1988) highlighted the fact that mismatches often occur among various levels of the organization. For example, a manufacturing manager with expertise in operations often may not have an adequate understanding of strategic issues. Conversely, top management may not have a full understanding of operational details. This often results in frustration as operation engineers are expected to meet the unrealistic demands of top management.

Manufacturing technology implementation may also fail as a result of inadequate planning (Kumar *et al.*, 1996; Ramamurthy, 1995). Planning is

essential to enable a careful assessment of the innovation's potential, the level of integration required, the functions affected, and all the necessary changes required. There is also evidence to suggest a need to involve various business activities in order to achieve overall business effectiveness. Maximum benefits will accrue if there is a fit between the capabilities of the technologies and the firm's business and manufacturing priorities (Gupta, 1996). Finally, external technical support may also influence the implementation of manufacturing technology. Sabourin and Beckstead (1999) found that the lack of an external support system may influence the failure of manufacturing technology implementation.

Relationship between Firm Performance Level and Technological Adoption Behavior

Technology adoption has been recognized by some researchers as a risky endeavour due to the possibility that the adopted technology may not yield the expected return. In fact, firms can fail as early as at the implementation stage (Gupta *et al.*, 1997; Hottenstein *et al.*, 1999; Sambasivarao & Deshmukh, 1995). This is because technology implementation is one of the most lengthy, expensive and complex tasks a firm can undertake. The challenges facing manufacturing firms, including those in many developing countries are adopting the right technology and using it efficiently (Jabar & Soosay, 2011). Frohlich (1999) warns practitioners that the threatening

obstacles associated with technology implementation are not decreasing and may even be increasing due to the tremendous change in the complexity of technologies. Therefore, there is a possibility that firms with low performance level may hesitate to adopt new technology. According to threat-rigidity theory, performance below the aspiration level induces risk aversion (Audia & Greve, 2002), and orientation towards risk affects technology adoption decision (Fillis *et al.*, 2004).

Therefore, this study applies threat-rigidity theory to behavioural determinants of technology adoption and predicts that low-performing firms will be risk-averse (Audia & Greve, 2002). Audia and Greve (2002) speculated that large firms would follow behavioural risk theory and that small firms would follow threat-rigidity theory because small firms focused more on the threats of failure. They found that performance decreases induce risk aversion in small firms but not in large firms. Similarly, Staw *et al.* (1981), Lopes (1987) and Sitkin and Pablo (1992) suggested that performance below the aspiration level heightens awareness of danger and leads to risk aversion.

However, some research has provided support to behavioural risk theory, including studies by Cyert and March (1963) and Kahneman and Tversky (1979), which argued that performance below the aspiration level heightens awareness of the need for improvement and thus stimulates rather than discourages risk-taking behaviour. Although the debate regarding the conflicting predictions of risk seeking and risk aversion

has received considerable attention, it rests on limited empirical evidence (March & Shapira, 1987; Mone *et al.*, 1998; Ocasio, 1995). Evidence of risk aversion when performance is below the aspiration level comes primarily from studies of risk behaviour in response to organizational decline such as in Greenhalgh (1983) and Cameron *et al.* (1987). Consistent with this argument, the present study theorizes that the level of a firm's performance will affect their perception of both the benefits and the obstacles of technology adoption.

Understanding Organizational Culture and Its Role in Supporting Change

Since the 1980s, organizational culture, which is also known as corporate culture, has become a popular variable in management studies (Hofstede, 1998). Culture is important because it comprises a powerful, latent, and often unconscious set of forces that determine both individual and collective behaviours, ways of perceiving, thought patterns, and values (Schein, 1999). In particular, organizational culture is important because cultural elements determine organizations' strategies, goals, and modes of operating (Schein, 1999). Due to its effects and potential impact on organizational success, organizational culture has received much attention in the last two decades.

Previous studies found that some organizational cultures have a positive impact on the performance of various organizational dimensions such as job commitment, job satisfaction, financial

performance and innovativeness (Chow *et al.*, 2001; Jantan *et al.*, 2003; Lee & Yu, 2004; Rashid *et al.*, 2003; Yiing & Ahmad, 2009). Within the scarce literature on advanced manufacturing technology implementation and organizational culture, it has been suggested that the right culture is needed to help organizations to face challenges, as well as to enjoy the benefits of implementation (Zammuto & O'Connor, 1992).

In order for organizations to be made more efficient and effective, the role of culture in organizational life must first be understood (Schein, 1999). Organizational culture was found to play an important role in the change process (Ahmed, 1998; deLisi, 1990; Pool, 2000; Rashid *et al.*, 2004; Scheinder & Brief, 1996; Silvester & Anderson, 1999). Different cultures may either facilitate or inhibit organizational change (Pool, 2000), that is, any alteration in an organization's activities or tasks (Dawson, 1994). Kanter *et al.* (1992) define change as the process of analyzing the past to elicit the present actions required for the future. Organizational change may include changes in employees' attitudes, technology, performance, management, or infrastructure. One major issue in organizational change is determining the types of organizational culture that favour organizational change.

Several typologies have been developed to aid in understanding the concept of organizational culture. One of the earliest, developed by Wallach (1983), introduced organizational culture index (OCI) in terms of three distinct dimensions; bureaucratic,

innovative and supportive. Later, Schein (1985) and Ott (1989) proposed the multi-level model of culture in understanding the concept of organizational culture, while Hofstede *et al.* (1990) developed an organizational culture model which focuses on six independent dimensions that describe organizational practices. Over the years, many more typologies have been developed and tested against various organizational variables (e.g., Christensen & Gordon, 1999; Cameron & Quinn, 1999; Goffee & Jones, 1998; Noordahaven *et al.*, 2002; O'Reilly *et al.*, 1991).

The present study uses the Competing Value Model (CVM) proposed by Quinn and Rohrbaugh (1981) and developed by Cameron and Quinn (1999). This framework was chosen because CVM is the most widely accepted conceptualization of organizational culture, apart from being used to examine various organizational phenomena and has been reported to effectively explain those phenomena (Deshpande *et al.*, 1989; Dwyer *et al.*, 2003; Quinn & Rohrbaugh, 1983; Sambasivan & Yen, 2010; Zammuto & Krakower, 1991). This framework has also been used to investigate the technology adoption environment. For example, Zammuto and O'Connor (1992) used this framework to study the role of organizational culture in gaining benefits of the technology. McDermott and Stock (1999) also used CVM to identify the relationship between organizational culture and technology implementation. In addition, many previous researchers used the CVM when defining distinctive culture types in studies relating

to organizational performance (Deshpande *et al.*, 1993; Deshpande & Farley, 1999; Dwyer *et al.*, 2003; Henri, 2006).

The CVM consists of two dimensions: a flexibility–control axis and an internal–external axis. The flexibility–control axis emphasizes the desire to either change or maintain stability. A flexibility orientation reflects flexibility and spontaneity end, while a control orientation reflects stability, control and order end. The internal–external axis focuses on activities that occur either inside or outside the organization. The internal dimension reflects maintenance and improvement of the existing organization, while the external dimension focuses on competition with rivals (McDermott & Stock, 1999). The four quadrants of this framework reflect four types of organizational culture: group (internal flexibility), developmental (external flexibility), hierarchical (internal control), and rationale (external control). Fig.1 shows the CVM developed by Quinn and Rohrbaugh (1983).

Research Framework and Development of Hypotheses

Although many researchers have helped to identify the key success or failure factors of technology implementation, there have been few studies on the perceived benefits and obstacles of future adopters. In other words, studies have thus so far restricted their focus to the benefits and obstacles of technology implementation among those who have already adopted the technology, overlooking non-adopters' perspectives. Therefore, much remains to be understood regarding

the relationships between organizational culture, performance and technological adoption behaviour, particularly in the SME environment. Based on the above discussion, Fig.2 proposes a conceptual model for this study:

There is a consensus among researchers that organizational culture is a management philosophy and a way of managing organizations to improve their effectiveness and performance (Boon & Arumugam, 2006). For example, Kotter and Heskett

(1992) believe that organizational culture has a strong impact on the performance of the organization. Similarly, Van der Post *et al.* (1998) found that more financially effective firms differ from less effective firms with respect to the organizational culture dimension they predominately use. Deshpande and Farley (1999) found that entrepreneurial and competitive cultures perform better than consensual and bureaucratic cultures. Study by Rashid *et al.* (2003) showed that corporate culture

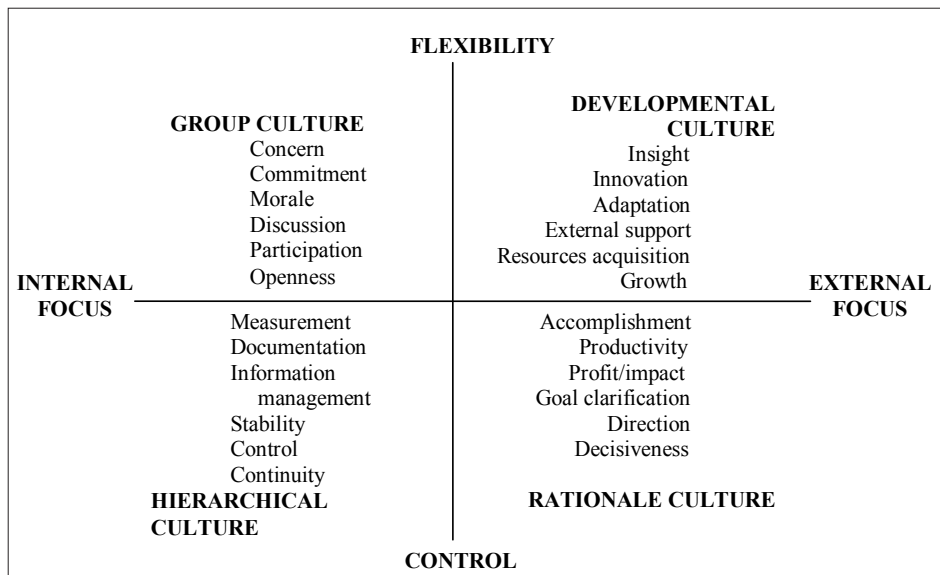


Fig.1: The Competing Value Framework (Source: Quinn & Rohrbaugh, 1983)

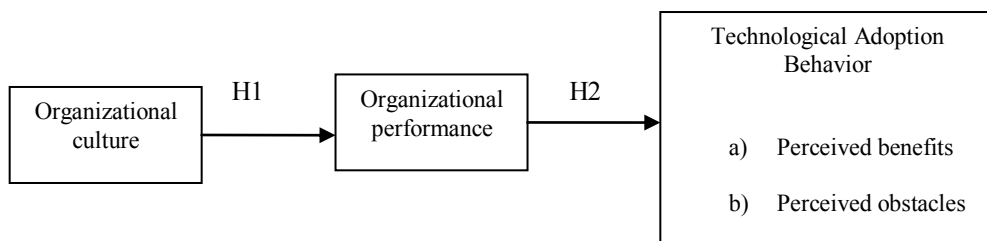


Fig.2: Conceptual Model

significantly influenced both return on investment and return on asset.

The above-cited literature suggests that organizational culture plays an important role in promoting organizational success, which could only be achieved by ensuring the development of an organization culture that matches the managers' values, attitudes and behaviour (Rashid *et al.*, 2003). Previous researchers have indicated that some organizational cultures support organizational change (Rashid *et al.*, 2004) and favour a higher degree of integration with suppliers, while others do not (Sambasivan & Yen, 2010). Zammuto and O'Connor (1992) found that the greater the organization's emphasis on control-oriented value, the more likely it is that the organization will experience technology implementation failure.

According to Yusuff *et al.* (2005), companies that are marked by a tradition of top-down control, in which supervisors are controllers rather than team leaders, may experience more conflict when introducing technological change, which in turn may limit organizational performance. Therefore, this study predicts that there is a relationship between organizational culture and performance. In line with the above discussion, it is hypothesized that:

Hypothesis 1:

There is a significant relationship between organizational culture and organizational performance.

As discussed earlier, there are

two conflicting theories regarding the relationship between firm performance and risks; behavioural risk theory predicts that low-performing firms will take greater risks, but threat-rigidity theory predicts that low-performing firms will be risk-averse (Audia & Greve, 2002). Audia and Greve (2002) also speculated that large firms would follow behavioural risk theory and that small firms would follow threat-rigidity theory because small firms are more focused on the threats of failure. In their study, the authors found that decreased performance induced risk aversion in small firms but not in large firms. Similarly, Staw *et al.* (1981), Lopes (1987) and Sitkin and Pablo (1992) suggested that performance below the aspiration level heightened awareness of danger and led to risk aversion.

Adoption of advanced manufacturing technology involves greater financial investment and high uncertainty in many aspects. The present study follows the argument made by Audia and Greve (2002) that small firms tend to use threat-rigidity theory in making decisions. Threat-rigidity theory argues that decision makers interpret performance below the aspiration level as a threat to their vital interests (Milliken & Lant, 1991; Mone *et al.*, 1998; Ocasio, 1995; Sitkin & Pablo, 1992). As a result of the different levels of stress and anxiety experienced by performing and less-performing firms, their ability to identify benefits differs. Thus, it could also be argued that performing and less-performing firms might possess different perceptions of the benefits of and obstacles

to technology implementation, since not all firms adopting the technology are able to reap all of its potential benefits. This study also investigated the relationship between organizational performance and the perceived benefits of and obstacles to technology adoption. This reasoning leads to the following hypotheses:

Hypothesis 2a:

There is significant mean difference in the perception of the benefits of technology adoption between low and high performing firms.

Hypothesis 2b:

There is significant mean difference in the perception of obstacles to technology adoption between low and high performing firms.

RESEARCH METHODOLOGY

Sample and Sampling Procedure

The mail survey was sent to a total of 328 food-processing SMEs listed in the Federation of Malaysian Manufacturer (FMM) and SMIDEC directories. We defined SMEs as companies with 150 or fewer employees, similar to the definition used by SMECorp Malaysia. A judgmental sampling procedure was used, and the respondents whose firms had the intention to adopt new technology. Respondents who held managerial positions were chosen, and as such, they were expected to possess relevant knowledge pertaining to both strategic and managerial issues at the institutional level. At the end of the data collection period, a

total of 85 usable responses were collected for further analysis.

Measurement

This study used a list of advanced technologies derived and modified from the surveys conducted by Statistics Canada (Sabourin & Beckstead, 1999), Swamidass and Kotha (1998), and Abd Rahman *et al.* (2009). The list includes a variety of functional technology groups used in processing, assembly, packaging, automated material handling, inspection, integration and control. The respondents were asked to indicate the technologies their firms used and planned to use.

Scales for the perceived benefits of advanced technology were developed based on the study by McDermott and Stock (1999), who categorized the benefits of technology adoption into operational, organizational, and competitive benefits. Items were scored on a 5-point Likert scale ranging from “not at all” to “to a very great extent”. Meanwhile, perceived obstacles were developed based on various studies documenting stumbling blocks to successful technology implementation such as the lack of financial support, lack of knowledge, lack of support from employees and management, and lack of facilities and support from suppliers (Sabourin & Beckstead, 1999; Sambasivarao & Deshmukh, 1995; Sohal, 1997; Udo & Ehie, 1996; Walters *et al.*, 2006). The respondents were asked to indicate their responses using the same 5-point scale described above.

The measure of organizational culture

was based on Quinn and Rohrbaugh's (1981, 1983) Competing Value Model (CVM) described earlier (Zammuto & O'Connor, 1992). The items were scored on a 5-point scale ranging from strongly disagree to strongly agree. The measure of performance was based on the research by Agarwal (1997), Vickery *et al.* (1993) and Youssef (1991). The respondents were asked to indicate on a 5-point scale their business unit performance on several dimensions in relation to their major competitors. Details of the items in the reliability and validity tests are shown in Tables 1, 2, 3, and 4.

Scale Purification

An initial reliability test was carried out on all the variables. Results indicated that the values are all above the recommended minimum threshold of 0.7. Next, a validity analysis was carried out using factor analysis. Table 1 indicates the value of the reliability test on the final items retained for further analysis.

The validity test was carried out using exploratory factor analysis (EFA) on the perceived benefits and perceived obstacles. During this stage, several items were deleted because they merged into the unintended factors. Also, dimensions of perceived obstacle variables were relabelled according to the pattern suggested by the factor analysis. For the perceived benefits scale, two items ('enabled the firm to meet organizational goal' and 'increase in the ability to compete') merged into the unintended factors. These items were deleted to increase content validity and

internal reliability, leaving us with 15 items for further analysis. Table 2 shows the factor analysis after deleting the two items.

Table 3 indicates the results of EFA for the perceived obstacles construct. The analysis revealed that instead of loading into the five intended dimensions of obstacles (financial, skill, knowledge, people, and support), the components show strong loadings into only four different factors. The skill and knowledge scales appeared to merge together as one scale (under component 1); therefore, this scale was relabelled as perceived knowledge obstacles.

Table 4 indicates the results of the EFA for the performance construct. The analysis revealed that the components showed strong loadings into two intended factors, namely, non-cost performance and cost performance.

TABLE 1
Reliability test of all variables

Variables	Cronbach's Alpha (α)
Perceived Benefits	.829
Operational benefits	.818
Managerial benefits	.783
Competitive benefits	.799
Perceived Obstacles	.902
Financial obstacles	.906
Knowledge obstacles	.908
People obstacles	.922
Support obstacles	.901
Organizational Culture	.882
Group culture	.784
Developmental culture	.775
Rationale culture	.743
Hierarchy culture	.754
Organizational Performance	.822

Discriminant validity was further tested

TABLE 2
Exploratory factor analysis for perceived benefits construct

	Components		
	1	2	3
Increase in efficiency	.843		
Increase in productivity	.801		
Increase in reliability	.742		
Increase in quality	.622		
Increase in flexibility	.534		
Cost reduction	.437		
Increase in market share		.784	
Increase in profitability		.773	
Increase in return on investment		.759	
Increase in sales growth		.679	
Improvement in communication			.798
Improvement in work flow			.775
Integration of business activity			.723
Improvement in lead time			.719
Improvement in management control			.624

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

TABLE 3
Exploratory factor analysis for perceived obstacles construct

	Components			
	1	2	3	4
Inexperience in new/ advance technology implementation	.868			
Management Lacking of knowledge in new/ advanced technology	.852			
Our staff are lacking of skill for new/advanced technology	.830			
Our management is lacking of skill for new/ advanced technology	.794			
Lacking of knowledge in new/advanced technology by staff	.755			
Inability to evaluate financial return of new adopted technology	.613			
Inadequate understanding of new/advanced technology	.556			
Resistance by management		.854		
Lack of support from the management		.856		
Lack of support from staff		.850		
Resistance by staff		.810		
High cost equipment			.849	
Lack of funding			.824	
High integration cost of new technology			.621	
High training cost			.710	
Small market share			.633	
Lack of support by government				.834
Lack of technical support/ service by vendor/ consultant				.801
Lack of effective support system (infrastructure) in the firm				.668

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

TABLE 4
Exploratory factor analysis for the performance construct

	Components	
	1	2
product performance and reliability	.771	
production lead time	.756	
product features	.738	
delivery reliability	.734	
conformance to specifications	.728	
customers' perception of quality	.725	
lead time of order	.653	
design and engineering quality	.653	
response to customer requirement	.636	
speed in changing product volume	.632	
research and development effort	.586	
new product introduction	.531	
speed in making product changeover	.527	
volume flexibility	.479	
unit labour cost		.901
unit overhead cost		.881
unit material cost		.871
unit production cost		.753

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

using CFA. CFA for the perceived benefits resulted in an adequate fitting model of $\chi^2(54) = 1763.3$, $p = 0.00$; GFI = 0.90; CFI = 0.91, TLI = 0.90 and RMSEA = 0.08. Even though the chi-square statistic is significant, other fit indices indicate a recommended level of indices. Meanwhile, CFA for the perceived obstacles resulted in an adequate fitting model of $\chi^2(113) = 240.1$, $p = 0.00$; GFI = 0.90; CFI = 0.92, TLI = 0.91 and RMSEA = 0.09. The chi-square statistics were significant but other fit indices indicated a recommended level of indices, suggesting that the hypothesized model of perceived obstacles is admissible.

RESULTS AND DISCUSSION

Respondents' Profiles and Preliminary Analysis

Frequency and percentage distributions for corresponding demographic profiles are displayed in Table 5. The highest percentage of firms (36.5%) had 10 to 49 employees, while a similar percentage (34.1%) had 9 or fewer employees, and only 10.6% of the firms had been established for fewer than three years. Finally, the majority of the companies (68.2%) were locally owned.

Table 6 indicates the means, standard deviations and coefficient alphas for perceived benefits, perceived obstacles, organizational culture, and performance.

TABLE 5
Frequency and percentage distribution of respondents by demographic profile

Profile	Frequency	Percentage
Company size		
9 or less	29	34.1
10 to 49	31	36.5
50 to 100	12	14.1
101 to 150	13	15.3
Company establishment		
Less than 3 years	9	10.6
3 to 5 years	17	20.0
5 to 10 years	22	25.9
10 to 15 years	23	27.1
More than 15 years	14	16.5
Company status		
Local owned	58	68.2
> 50% foreign majority	12	14.1
< 50% foreign majority	13	15.3
Others	2	2.4

The mean score for each variable revealed that competitive and operational benefits were the two top perceived benefits from advanced technology adoption, with *tej* mean scores of 4.39 and 4.32, respectively. Meanwhile, financial impediments and lack of knowledge and skills were revealed as the top two obstacles perceived by the responding firms in adopting advanced technologies, with the mean scores of 3.68 and 3.25, respectively.

Testing of Hypotheses

Hypothesis 1 postulates that different organizational cultural values will lead to different level of organizational performance. Multiple regression analysis was used to test this relationship. All four organizational cultures were tested simultaneously in this multiple regression model to identify

the predictive organizational culture and to explain the variance in organizational performance. Results of the analysis are depicted in Tables 7 and Table 8.

Table 7 shows that the value of R^2 is 0.18, suggesting that the model explains 18% of the variance in organizational performance. The model is significant with a statistical significance value of 0.00 ($p < 0.05$). Table 8 shows that only two cultures, namely, group culture and rationale culture, make a significant unique contribution to the prediction of organizational performance. The group culture beta coefficient is 0.33, and the rationale culture beta coefficient is .44 (significant at $p < 0.05$). The positive symbol indicates a positive relationship between organizational culture and performance, with high group and rationale culture associated with a high level of organizational performance.

TABLE 6
Means, Standard Deviations and Coefficient Alphas for Perceived Benefits, Perceived Obstacles, Organizational Culture and Performance

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Benefits																		
1. Operational Benefits	4.32	.62	NA															
2. Managerial Benefits	3.96	.73	.44**	NA														
3. Competitive Benefits	4.39	.59	.58**	.28**	NA													
4. Overall Benefits	4.22	.53	.85**	.79**	.71**	NA												
Obstacles																		
5. Financial Obstacles	3.68	.78	.21**	-.03	.17*	.14*	NA											
6. Knowledge Obstacles	3.25	.91	-.10	-.14	-.08	-.14	.48**	NA										
7. Staff Obstacles	2.25	1.00	-.16	-.21	-.19	-.24	.17*	.44**	NA									
8. Support Obstacles	2.88	1.05	-.10	-.10	-.12	-.13	.26**	.31**	.49**	NA								
9. Overall Obstacles	3.09	.67	-.05	-.17	-.07	-.13	.68**	.89**	.70**	.63**	NA							
Organizational Culture																		
10. Group Culture	4.07	.53	.32	.12	-.33	.30**	.05	-.01	-.20**	-.07	-.03	NA						
11. Develop. Culture	3.91	.50	.19	.15	.12	.20*	-.12	.01	-.04	-.03	-.06	.68**	NA					
12. Rationale Culture	3.76	.57	.32*	.34	.26	.40**	-.14	-.29	-.16*	-.06	-.25**	.37**	.56**	NA				
13. Hierarchy Culture	3.73	.57	.30	.35	.14	.35**	-.10	-.20	-.04	-.02	-.15	.32**	.62**	.77**	NA			
Performance																		
14. Non-Cost Performance	3.52	.69	.22*	.13	.20	.23*	.03	-.17	-.42**	-.10	-.23*	.29**	.15	.34**	.21	NA		
15. Cost Performance	3.40	.58	.01	.05	.15	.08	-.12	-.13	-.19	-.23*	-.22*	.18	.17	.21	.08	.56**	NA	
16. Overall Performance	3.49	.55	.18	.12	.21	.21	-.01	-.18	-.39**	-.15	-.25*	.29**	.17	.34**	.12	.93**	.73**	NA

**p<0.01 (2-tailed)

*p<0.05 (2 tailed)

TABLE 7
Model summary and ANOVA

Dependent variable	Model summary		ANOVA	
	R	R Square	F	Sig.
Overall Performance	.42	.18	4.37	.00

Predictors: (Constant), hierarchy culture, group culture, rationale culture, developmental culture

TABLE 8
Regression results on the relationship between organizational culture and organizational performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.89	.53		3.58	.00
	Group culture	.33	.15	.32	2.24	.03
	Developmental culture	-.27	.20	-.23	-1.33	.19
	Rationale culture	.44	.17	.42	2.60	.01
	Hierarchy culture	-.10	.18	-.10	-0.55	.58

a Dependent Variable: organizational performance

The finding showed that group and rationale cultures have a significant positive relationship with organizational performance. This suggests that organizations with stronger elements of group culture and rationale culture are likely to experience higher performance. This supports the arguments made by other researchers (e.g., Boon & Arumugam, 2006; Deshpande & Farley, 1999; Kotter & Heskett, 1992; Rashid *et al.*, 2003; Van der Post *et al.*, 1998). For example, Kotter and Heskett (1992) found that firms with a culture that emphasizes on all the key managerial constituencies (customers, stockholders and employees), as well as leadership from managers at all levels, outperformed by a huge margin other firms that do not have those cultural traits. Group culture emphasizes human resources (employees

and stockholders), while rationale culture emphasizes external focus (customers); therefore, both these cultures present the values of those described by Kotter and Heskett (1992) as high performers.

Meanwhile, firms with a predominantly group culture emphasize commitment, participation and openness of their human resources as a means to achieve performance, while firms with a predominantly rationale culture emphasize goal clarification, direction and accomplishment of their human resources in achieving performance. Although these approaches differ, both seem to be effective means by which to achieve organizational performance.

Developmental culture is more common in newly established firms, while hierarchical culture is more common in government agencies. Firms owned by

government agencies normally possess a hierarchical culture, with the characteristics of stability, control and continuity (Twati & Gammack, 2006). Since the adoption of technology tends to change work processes and methods in organizations, firms with a hierarchical culture are less likely to change. Therefore, private firms that fit strongly into a hierarchical culture are less likely to perform well than firms with a strong group culture or rationale culture (Obenchen *et al.*, 2004).

Hypotheses 2a and 2b postulate that there is a significant relationship

between organizational performance and the perceived benefits of and obstacles to technology adoption. An independent sample *t* test was conducted to identify any significant difference in the perceived benefits and obstacles between performing and less- performing firms. A mean score of 3.5 was used as a cut-off point; firms with a mean score above 3.5 were considered performing firms, while those with a mean score of 3.5 or below were considered as less performing firms. Tables 9 and 10 summarize the results of the independent *t* test between performance as a dependent

TABLE 9

Independent *T* Test Results for Differences in Perceived Benefits of Advanced Technology Adoption by Performance Level

Perceived Benefits	Performance	Mean	Levene's test (sig. value)	Sig. value
Operational	High	4.42	.322	.031
	Low	4.25		
Managerial	High	4.16	.345	.025
	Low	3.80		
Competitive	High	4.57	.620	.014
	Low	4.26		
Overall	High	4.42	.429	.002
	Low	4.12		

TABLE 10

Independent *T* Test Results for Differences in Perceived Obstacles to Advanced Technology Adoption by Performance Level

Perceived Obstacles	Performance	Mean	Levene's test (sig. value)	Sig. value
Financial	High	3.60	.427	.481
	Low	3.74		
Knowledge	High	3.00	.866	.008
	Low	3.48		
People	High	1.76	.077	.000
	Low	2.64		
Support	High	2.71	.569	.202
	Low	3.01		

variable and both perceived benefits and obstacles as independent variables. The results indicate that the mean score of perceived operational benefits, perceived managerial benefits, perceived competitive benefits, and perceived overall benefits are significantly different between the performing and less-performing firms. For all the dimensions of perceived benefits, the mean scores of performing firms are higher than those of the less-performing firms.

Meanwhile, the mean scores of people resistance as an obstacle and perceived overall obstacles are significantly different between the performing and less-performing firms. The mean score of people as an obstacle towards technology adoption is lower (1.76) in the performing firms than in the less-performing firms (2.64). A similar pattern is observed for the knowledge obstacles towards technology adoption, where firms with higher performance perceive lower knowledge obstacles (mean score of 3.0) than firms with lower performance (mean score of 3.48) in terms of their technological adoption behaviour.

The analysis between organizational performance and perceived benefits of and obstacles to technology adoption showed that performance level impacts the way firms perceive the benefits of technology adoption. The perception of threat leads to psychological stress and anxiety, which restricts information processing and reduces behavioural flexibility (Audia & Greve, 2002). The inability to generate and consider risky alternatives makes decision makers rigid and risk averse (Audia & Greve,

2002). Furthermore, based on threat-rigidity theory, performing and non-performing firms experience different levels of stress and anxiety, resulting in differing abilities to identify benefits. According to the authors, low-performing firms were risk averse, which meant that high-performing firms perceived higher benefits of technology adoption.

The perceptions of perceived benefits of and obstacles to technology adoption differ according to the firm's performance level. High-performing firms perceive more benefits from advanced manufacturing technology adoption than do less-performing firms. Rapid changes in the market demand can affect the product of a manufacturing firm and force it to redesign the product. In such cases, the existing equipment may be inadequate to incorporate the required changes to a product. Performing firms are quicker to recognize what the technology could bring to their organization in order to remain competitive.

Regardless of their performance level, firms perceive financial issues as the main obstacles to technology adoption. Less-performing firms see more obstacles in terms of knowledge and people's support than do high performing firms. In terms of overall obstacles, performing firms perceive fewer obstacles to technology adoption than do less-performing firms. The importance of knowledge and support from staff are enormous for successful implementation of advanced technologies into firms. Many firms that have already invested in technology are unable to progress to higher

levels of technology. The investment may end up as the 'white elephant' and thus, firms fail to benefit from the technology.

Adopting new and advanced technology is a risky decision since it involves substantial financial investment and there is a possibility of adoption failure due to various factors such as lack of employee and vendor support, and lack of knowledge or failure of the technology to work as expected. The results of this study support the argument made by the threat-rigidity theory that low-performing firms will be risk-averse (Audia & Greve, 2002; Lopes, 1987; Sitkin & Pablo, 1992; Staw *et al.*, 1981).

CONCLUSION

The results of the study contribute to the body of knowledge in organizational culture and technology adoption. These results aid in understanding the role of organizational culture in the propensity of food-processing SMEs to adopt new and advanced technologies in the immediate future. The findings highlight some important implications for practicing managers. First, managers of food processing SMEs may take steps to inculcate types of organizational culture with specific values that will enhance organizational performance. These values help to determine what members within the organization see as important and whether or not employees will be supportive of organizational goals to adopt technology. This is indirectly linked to the perceived obstacles to and benefits of technology implementation, particularly in

the agriculture sector.

As the findings reveal that food processing SMEs' performance affects technological adoption behaviour, management should be aware that a firm's performance influences how it perceives the benefits of technology adoption, which could affect attitudes towards technology adoption. Managers of less-performing food-processing SMEs having low tendency to adopt technology should be encouraged to adopt technology into their manufacturing facility. These managers also need to be aware that resistance from people within the organization and the lack of knowledge and skills are impediments not only to successful technology implementation, but also to the initial intention to adopt the technology. As this study focuses on the future adopter, it can serve as a guideline for other players in the industry in order to increase the success rate of technology adoption and implementation in the Malaysian food-based manufacturing industry.

This study is limited to the demographic scope within Peninsular Malaysia, mainly due to financial and time constraints. Thus, it may limit the generalizability of the findings. In addition, the data for this study were obtained through questionnaires. Hence, this study has the inherent methodological limitations of any questionnaire investigation. Future research should use different methods or models to measure culture, performance and technological adoption behaviour, as these methods may result in different findings.

REFERENCES

- Abd Rahman, A., Bennett, D., & Sohal, A. (2009). Transaction attributes and buyer-supplier relationships in AMT acquisition and implementation: the case of Malaysia. *International Journal of Production Research*, 47(9), 2257-2278S.
- Agarwal, D. (1997). An empirical investigation of the impact of advanced manufacturing technology on business performance. New York: The City University. Doctoral Dissertation.
- Ahmed, P. K. (1998). Culture and climate for innovation. *European Journal of Innovation Management*, 1(1), 30-43.
- Ariss, S. S., Raghunathan, T. S., & Kunnathar, A. (2000). Factors affecting the adoption of advanced manufacturing technology in small firms. *SAM Advanced Management Journal*, 14-29.
- Audia, P. G., & Greve, H. R. (2002). *Performance, firm size and factory expansion in the shipbuilding industry*. Michigan: University of Michigan.
- Automationmag. (2009). "advanced manufacturing."
- Beatty, C. A., & Gordon, J. R. M. (1988). barriers to the implementation of CAD/CAM system. *Sloan Management Review*, Summer, 25-33.
- Boon, O. K., & Arumugam, V. (2006). The influence of corporate culture on organizational commitment: case study of semiconductor organizations in Malaysia. *Sunway Academic Journal*, 3, 99-115.
- Cameron, K., & Quinn, R. E. (1999). *Diagnosing and changing organizational culture*. New York: Addison-Wesley.
- Cameron, K. S., Kim, M. U., & Whette, D. A. (1987). Organizational effects of decline and turbulence. *Administrative Science Quarterly*, 32, 222-240.
- Chee, P. L. (1986). *Small Industry in Malaysia*. Kuala Lumpur: Berita Publishing Sdn. Bhd.
- Chen, I. J., & Small, M. H. (1996). Planning for advanced manufacturing technology: A research framework. *International Journal of Operation & Production Management*, 16(5), 4-24.
- Chow, C. W., Harrison, G. L., McKinnon, J. L., & Wu, A. (2001). Organizational culture: association with affective commitment, job satisfaction, propensity to remain and information sharing in a chinese cultural context. *Center for International Business Education and Research (CIBER)*, 111.
- Christensen, E. W., & Gordon, G. G. (1999). An exploration of industry, culture and revenue growth. *Organization Studies*, 20(3), 397-422.
- Croissant J. L. (2008). *Technology adoption of*. *International Encyclopedia of the Social Sciences*. Encyclopedia.com. Retrived May 23, 2011 from encyclopedia.com:<http://www.encyclopedia.com/doc/1G2-3045302716.html>.
- Cyert, R. M., & March, J. G. (1963). *A Behavioral theory of the firm*. Eaglewood Cliffs, NJ: Prentice-Hall.
- Dawson, P. (1994). *Organizational change: a process approach*. London, Paul Chatman.
- deLisi, P. S. (1990). Lessons from the steel axe: culture, technology and organizational change. *Sloan Management Review* 32(1), 83-93.
- Deshpande, R., & Farley, J. (1999). Executive insights: corporate culture and market orientation: comparing Indian and Japanese firms. *Journal of International Marketing*, 7(4), 111-127.
- Deshpande, R., Farley, J., & Webster, F. E. (1993). corporate culture, customer orientation, and innovativeness in Japanese firms: a quadrant analysis. *Journal of Marketing*, 57, 23-37.
- Deshpande, R., & Webster, F. E. Jr. (1989). Organizational culture and marketing: defining the research agenda. *Journal of Marketing* 53(1), 3-15.

- Dhar, U. R. (1989). FMS: major breakthrough in manufacturing management *Engineering Management International*, 5(4), 271-277.
- Dwyer, S., Richard, O. C., & Chadwick, K. (2003). Gender diversity in management and firm performance: the influence of growth orientation and organizational culture *Journal of Business Research*, 56, 1009-1019.
- Efstathiades, A., Tassou, S. A., Antoniou, A., & Oxinos, G. (1999). Strategic consideration in the introduction of advanced manufacturing technologies in the Cypriot industry. *Technovation*, 15, 105-115.
- Ferraro, R. A., Hunley, T. E., & Shackney, O. Y. (1988). Banishing management barriers to automation. *Manufacturing engineering*, January, 44-48.
- Fillis, I., Johansson, U., & Wagner, B. (2004). Factors impacting on e-business adoption and development in the smaller firm. *International Journal of Entrepreneurial Behaviour & Research*, 10(3), 178 - 191.
- Goffee, R., & Jones, G. (1998). The character of a corporation: How your company's culture can make or break your business. *Harper Business, London*.
- Greenhalgh, L. (1983). Organizational decline. *Res. Social Organ.*, 2, 231-276.
- Gupta, A. (1996). Advanced manufacturing strategy: a managerial perspective. *International Journal of Vehicle Design*, 17(2), 139-146.
- Gupta, A., Chen, I., & Chiang, D. (1997). Determining organizational structure choices in Advanced Manufacturing Technology Management. *International Journal of Management Science*, 25(5), 511-521.
- Henri, J.-F. (2006). organizational culture and performance measurement systems. *Accounting, Organization and Society*, 31, 77-103.
- Hilal, A. V. G. d., Wetzel, U., & Ferreira, V. (2009). Organizational culture and Performance: a Brazilian case. *Management Research News*, 32(2), 99-119.
- Hofstede, G. (1998). Attitudes, values and organizational culture: disentangling the concepts. *Organization Studies*, 19(3), 477-492.
- Hofstede, G., Neuijen, B., Ohayv, D. D., & Sanders, G. (1990). Measuring organizational cultures: a qualitative and quantitative study across twenty cases. *Administrative Science Quarterly*, 35(2), 48-75.
- Hottenstein, M. P., & Casey, M. S. (1997). Facilitation of advanced manufacturing technology: Implementation and transfer. *Industrial Management*, 39 (5), 8-15.
- Jantan, M., Nasurdin, A. M., & Fadzil, N. F. A. (2003). Designing innovative organizations in Malaysia: do structure and culture matter. *Global Business Review*, 4(2), 213-226.
- Jabar, J., & Soosai, C. (2011). Organisational Learning as an antecedent of technology transfer and new product development: A study of Manufacturing firm in Malaysia. *Journal of Manufacturing Technology Management*, 22(1), 25-45.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: an analysis of decision under risk. *Econometrica*, 25, 683-706.
- Kanter, R. S., Stein, B., & Jick, T. D. (1992). *The challenge of organizational change*. New York: The Free Press.
- Kotter, J. P., & Heskett, J. L. (1992). *Corporate culture and performance*. New York: The Free Press.
- Kumar, V., Murphy, S. A., & Loo, S. C. K. (1996). An investment decision process: the case of advanced technologies in Canadian manufacturing firm. *International journal of Production Research*, 34(4), 947-958.

- Lee, S. K. J., & Yu, K. (2004). Corporate culture and organizational performance. *Journal of Managerial Psychology*, 19(4), 340-359.
- Leonard-Barton, D. (1988). Synergistic design for case studies: longitudinal single-site and replicated multiple-site. Longitudinal Research Methods in Organizations. Austin, TX, National Science Foundation.
- Liu, H., & Barar, P. (2009). Performance implications of strategy-technology connections: an empirical examination. *Journal of Manufacturing Technology Management*, 20, 52-73.
- Lopes, L. L. (1987). Between hope and fear: the psychology of risk. *Adv. Experiment. Social Psych*, 20, 255-295.
- Machuca, J. A. D., Diaz, M. S., & M. Gil, J. A. (2004). Adopting and implementing advanced manufacturing technology: new data on key factors from the aeronautical industry. *International Journal of Production Research*, 42(16), 3183-3202.
- March, J. G., & Shapira, Z. (1987). Managerial perspectives on risk and risk taking *Management Science*, 33, 1404-1418.
- McDermott, C. M., & Stock, G. N. (1999). Organizational culture and advanced manufacturing implementation. *Journal of Operations Management*, 17, 521-533.
- Malaysian Investment Development Authority (MIDA) (2010). Retrieved April 25, 2012 from <http://www.mida.gov.my/env3/index.php?page=food-industries>.
- Milliken, F. J., & Lant, T. K. (1991). The effect of an organization's recent performance history on strategic persistence and change. *Adv. Strategic Management*, 7, 129-156.
- Mohd Aris, N. (2007). *SMEs: Building Blocks for Economic Growth*. Retrieved June 8, 2012 from www.smecorp.gov.my/v4/node/7.
- Mone, M. A., McKinley, W., & Barker, V. L. (1998). Organizational decline and innovation: a contingency framework. *Academy Management Review*, 23, 115-132.
- Moore, G.A., (1991). *Crossing the Chasm*. New York: HarperCollins
- Noordahaven, G., Koen, I., & Beugelsdijk, S. (2002). Organizational culture and network embeddedness. *Tibung University Centre Discussion paper*, 2002-2091.
- O'Reilly, C. A. I., Chatman, J. A., & Caldwell, D. (1991). People and organizational culture: a profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, 34(3), 487-516.
- Obenchen, A. M., Johnson, W. C., & Dion, P. A. (2004). Institutional types, organizational culture and innovation in Christian colleges and universities. *Christian Higher Education*, 3, 15-39.
- Ocasio, W. C. (1995). *The enactment of academic adversity: a reconciliation of theories of failure-induced change and treat-rigidity*. Greenwich, CT: JAI Press.
- Ott, J. S. (1989). *The organizational culture perspective*. Chicago: The Dorsey Press.
- Pool, S. W. (2000). Organizational culture and its relationship between jobs tension in measuring outcomes among business executives *Journal of Management Development*, 9(1), 32-49.
- Quinn, R. E. & Rohrbaugh, J. (1981). A competing value approach to organizational effectiveness. *Public Productivity Review*, 5, 122-140.
- Quinn, R. E., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: towards a competing values approach to organizational analysis. *Management Science*, 29, 363-377.

- Ramamurthy, K. (1995a). The influence of planning on implementation success of advanced manufacturing technology. *IEEE Transaction on Engineering Management*, 42(1), 50-61.
- Ramamurthy, K. (1995b). Influence of planning on implementation success of AMT. *IEEE Transitions on Engineering Management*, 42(1), 62-73.
- Rashid, M. Z. A., Sambasivan, M., & Johari, J. (2003). The influence of corporate culture and organizational commitment on performance. *Journal of Management Development*, 22(8), 708-728.
- Rashid, M. Z. A., Sambasivan, M., & Rahman, A. A. (2004). The influence of organizational culture on attitudes toward organizational change. *The Leadership and Organization Development Journal*, 25(2), 161-179.
- Rose, R. C., Kumar, N., Abdullah, H., & G. Y. Ling (2008). Organizational culture as a root of performance improvement: research and recommendations. *Contemporary Management Research*, 4(1), 43-56.
- Sabourin, D., & Beckstead, D. (1999). Technology adoption in Canadian manufacturing: Survey of advanced technology in Canadian manufacturing. *Science, Innovation and Electronic Information Division*.
- Sambasivan, M., & Yen, C. Y (2010). Strategic alliances in a manufacturing supply chain: Influence of organizational culture from the manufacturer's perspective. *International Journal of Physical Distribution & Logistics Management*, 40(6), 456-474.
- Sambasivarao, K. V., & Deshmukh, S. G. (1995). Selection and implementation of advanced manufacturing technologies: classification and literature review of issues. *International Journal of Operations & Production Management*, 15(10), 43-62.
- Schein, E. H. (1985). *Organizational culture and leadership: A dynamic view*. San Francisco, CA: Jossey Bass.
- Schein, E. H. (1999). *The corporate culture survival guide*. San Francisco: Jossey-Bass.
- Scheinder, B., & Brief, A. (1996). Creating a climate and culture for sustainable organizational change. *Organizational Dynamics*, 24(7), 7-19.
- Schroeder, D. M., Gopinath, G., & Congden, S. W. (1989). New technology and the small manufacturer: Panacea and Plague. *Journal of Small Business Management*, 27, 1-10.
- Silvester, J., & Anderson, N. R. (1999). organizational culture change *Journal of Occupational and Organizational Psychology*, 72(1), 1-24.
- Sitkin, S. B., & Pablo, A. L. (1992). Reconceptualizing the determinants of risk behavior. *Academy Management Review*, 17, 9-38.
- SME. (2010/2011) *SME Annual Report 2010/2011: Leveraging Opportunities, Realising Growth*. Kuala Lumpur, Malaysia: Bank Negara Malaysia.
- SMIDEC (2002). *SMI development plan (2001-2005)*. Kuala Lumpur: Percetakan Nasional Berhad.
- SMIDEC (2006). *SME performance report*. Kuala Lumpur: Small and Medium Industries Development Corporation.
- SMIDEC. (2008). *Financial assistant (grants and soft loans)*. Retrieved September 2, 2009 from www.smidec.gov.my.
- Sohal, A. S. (1997). A longitudinal study of planning and implementation of advanced manufacturing technologies. *International Journal of Computer Integrated Manufacturing*, 10(1-4), 281-295.
- Sohal A. S, Maguire, W. A., & Putterill, M. S. (1996). AMT investments in New Zealand: pattern purpose and outcomes. *Integrated Manufacturing Systems: An International Journal*, 7(2), 27-36.

- Staw, B. M., Sandelands, L. E., & Dutton, J. E. (1981). Threat-rigidity effects in organizational behavior: a multilevel analysis. *Administrative Science Quarterly*, 26, 501-524.
- Swamidass, P. M., & Kotha, S. (1998). Explaining manufacturing technology use, firm size and performance using a multidimensional view of technology. *Journal of Operations Management*, 17(1), 23-37.
- The-Star (2009, March 27). Technology is key for SMEs. *The Star*.
- Twati, J. M., & Gammack, J. G. (2006). The impact of organisational culture innovation on the adoption of IS/IT: the case of Libya. *Journal of Enterprise Information System*, 19(2), 175-191.
- Udo, G. J., & Ehie, I. C. (1996). Advanced manufacturing technologies determinants of implementation success. *International Journal of Operation & Production Management*, 16(12), 6-26.
- Van der Post, W. Z., de Coning, T. J., & Smit, E. V. (1998). The relationship between organizational culture and financial performance: some South African evidence. *South African Journal of Business Management*, 29(1), 30-41.
- Vickery, S. K., Droge, C., & Markland, R. E. (1993). Production competence and business strategy: do they affect business performance? *Decision Sciences*, 24, 435-455.
- Wallach, E. J. (1983). Individuals and organizations: the cultural match. *Training and Development Journal*, 37, 247-252.
- Walters, A. T., Millward, H., & Lewis, A. (2006). Case studies of advanced manufacturing technology implementation in small companies. *International Journal of Innovation and Technology Management*, 3(2), 149-169.
- Yiing, L. H., & Ahmad, K. Z. B. (2009). The moderating effects of organizational culture on the relationship between leadership behaviour and organizational commitment and between organizational commitment and job satisfaction and performance. *Leadership & Organization Development Journal*, 30(1), 53-86.
- Youssef, M. A. (1991). *Advanced manufacturing technologies, manufacturing strategy and economic performance: an empirical investigation*. New York: The City University. Doctoral Dissertation.
- Yusuff, R. M., Chek, L. W., & Hashmi, M. S. J. (2005a). Advanced manufacturing in Malaysia. *CACCI Journal*, 1, 23-29.
- Yusuff, R. M., Chek, L. W., & Hashmi, M. S. J. (2005b). Advanced Manufacturing Technologies in SMEs. *CACCI Journal*, 1, 23-29.
- Zairi, M. (1992). Measuring success in AMT implementation using customer-supplier interaction criteria. *International Journal of Operations & Production Management*, 12(10), 34-55.
- Zairi, M. (1998). Supplier partnerships for effective advanced manufacturing technology implementation: a proposed model. *Integrated Manufacturing System*, 9(2), 13.
- Zammuto, R. F., & Krakower, J. Y. (1991). Quantitative and qualitative studies of organizational culture. *Research in Organizational Change and Development*, 5, 83-114.
- Zammuto, R. F., & O'Connor, E. J. (1992). Gaining advanced manufacturing technologies' benefits: the roles of organization design and culture. *Academy of Management Review*, 17(4), 701-728.
- Zhao, H., & Co, H. C. (1997). Adoption and implementation of advanced manufacturing technology in Singapore. *International Journal of Production economics*, 48, 7-19.



Factors Influencing Customer Satisfaction and Loyalty to Internationally Branded Clothes

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ABSTRACT

Satisfaction is important as the principle purpose of a business is to create satisfied customers that will consequently lead to higher profitability in the future. Therefore, it is crucial for marketers to focus on creating and retaining customer loyalty in a business. Besides, customer satisfaction and loyalty are being highlighted due to growing interests and practices in customer relationship management. Thus, this study seeks to examine the factors affecting customer satisfaction with regard to the purchase of imported apparel, and to determine the relationship between customer satisfaction and customer loyalty. A questionnaire was constructed and data were collected from 100 buyers of imported apparel in Malaysia. Results indicated that customer satisfaction is positively affected by brand credibility, perceived quality, and perceived value. This finding implies that a higher customer satisfaction leads to higher levels of customer retention and loyalty towards a specific brand. In conclusion, understanding such factors will help marketers of internationally branded apparel to operate their businesses effectively.

Keywords: Brand credibility, customer loyalty, customer satisfaction, perceived quality, perceived value

INTRODUCTION

In today's increasingly intense competitive environment, we notice that the features, quality and appearance of products have become increasingly similar, with lesser

differentiation between them. According to Bowen and Chen (2001), this causes customers to exhibit indecisiveness and non-loyal purchasing behaviour. In other words, customers might face some difficulties in determining which brand of a similar product to purchase. Therefore, companies are becoming increasingly aware of the importance of customer satisfaction since it is the key to customer loyalty (Bowen &

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Chen, 2001). As a consequence, firms are constantly seeking ways to understand their customers' changing preferences.

With so many players in the apparel business field today, manufacturers in the clothing industry have to understand their respective customers' evaluation towards their products in order to create and retain their loyalty. Brand loyalty is believed to have a direct influence on corporate profitability and marketing efficiency (Ndubisi *et al.*, 2006). This is because strong brand loyalty leads to improvements in winning over and retaining customers, which helps to increase profit margins and market share. Reichheld and Teal (2001) found that a 5% increase in customer loyalty might increase a company's profitability by 40% to 95%, and a 1% increase in customer loyalty would result in a 10% cost reduction.

Consumers usually have different evaluations on imported goods, just as they do on similar domestic products. In less developed countries, consumers may prefer to own imported brands as compared to domestic brands (Li *et al.*, 1997; Marcoux *et al.*, 1997; Agbonifoh & Elimimian, 1999; Wang *et al.*, 2000). Fashionable clothing is a product that is particularly conspicuous and status revealing. According to Kim, Knight and Pelton (2009), multinational apparel companies are expanding their businesses by bringing their selection of brands and products into the Malaysian market, and are implementing their marketing strategies to attract consumers. This is because they know it has the potential to increase the volume of sales for their products (Wong & Sidek, 2008).

As clothing has become internationalized, customers are progressively getting more in touch with imported products (Kwambata & Rabolt, 1999). Consumers always tend to give more favourable evaluations on imported apparel because they seem to provide value by improving consumers' confidence towards making purchasing decisions. Apart from that reason, brands also help create an individual shopper's identity, build customer loyalty and strengthen underlying values and quality (Matlack *et al.*, 2004; Carpenter & Fairhurst, 2005; Grant & Stephen, 2005).

Studies have suggested that companies focus on firm-customer relationships to gain privileged information about customers' needs and thereby provide customers with better service than their competitors (Ndubisi, 2006). The growing interest and practices in customer relationship management (CRM) in recent years clearly reflect the importance of customer satisfaction and customer loyalty in marketing. In addition, relationship marketing also aims to increase market share and profitability, and reduce costs. The cost of serving one loyal customer is five to six times lesser than the cost of attracting and serving one new customer. Although there is a long list of benefits associated with relationship marketing, little is understood from the empirical viewpoint about the influences (direct and indirect) of the dimensions of relationship marketing on customer satisfaction and customer loyalty as much of the literature in this area has remained conceptual (Malhotra, 2001; Malhotra & Agarwal, 2002).

There have been few, if any, studies done locally, specifically in the Malaysian context. This is because most research on customer relationship marketing to date focuses on the Western perspective to explain changes in customer satisfaction and loyalty towards branded goods (Ndubisi *et al.*, 2006). The growing importance of the Malaysian market to the global economy means that a study of the Malaysian market is necessary. This will enable industries to find ways and means of assisting marketing practitioners in designing effective customer management strategies. In addition, it will also aid in achieving high levels of customer satisfaction and customer loyalty towards internationally branded clothes.

Therefore, the purposes of this study are to examine the factors affecting customer satisfaction with regard to imported apparel, and to determine the relationship between customer satisfaction and customer loyalty.

RESEARCH HYPOTHESIS

Brand credibility plays a key role in a customer's perceptions of the retailing environment, particularly in the context of pricing tactics, advertising, salesperson interactions and online catalogues (O'Shaughnessy, 1971; Bobinski *et al.*, 1996). Brand credibility is known to consist of two components known as trustworthiness and expertise (Yang *et al.*, 2003). Trustworthiness refers to the belief that a firm is willing to deliver on its promises, whereas expertise relates to the belief that the firm is capable of delivering on its promises. Thus, brands are credible

(believable and trustworthy) signals and they motivate firms to be truthful about their products/services and to deliver on claims made about them (Hennig-Thurau *et al.*, 2002; Harris & Goode, 2004). Similarly, firms that are able to demonstrate knowledge and competence may increase customer satisfaction (Franco, 1990; Wray *et al.*, 1994). Therefore, it is hypothesised that:

Hypothesis 1:

Brand credibility will positively affect customer satisfaction.

The quality of a product plays a crucial role in consumers' preferences, their satisfaction and purchase/repurchase decision (Raju *et al.*, 1990; Parasuraman *et al.*, 1996). According to Moon, Park and Choi (2010), perceived quality is the consumer's perception of the overall degree of excellence of a specific brand. In other words, it does not refer to the real quality of the product, but to the consumer's perception of the overall quality or superiority of the brand with respect to its intended purpose. Satisfaction and perceived quality are believed to be highly correlated (Olsen, 2002). Sivadass and Baker-Prewitt (2000) found a positive relationship between service quality and satisfaction. This is also consistent with some previous research which views quality of service as an antecedent to customer satisfaction (Anderson *et al.*, 1994; Bitner *et al.*, 1994). A higher level of customer satisfaction results from a higher level of quality (Cronin *et al.*, 2000; Brady & Robertson, 2001). In other words, the perceived quality of service

will influence customer satisfaction, which will in turn lead to brand loyalty. Therefore, it is hypothesised that:

Hypothesis 2:

Perceived quality will positively affect overall customer satisfaction.

Zeithaml (1988) suggested that customers who perceived that they had received 'value for money' were more satisfied than those who did not. According to Sweeny and Soutar (2001), perceived value is different from customer satisfaction, but is related to it. Besides that, a customer's perception of value received will result in customer satisfaction (Hallowell, 1996). The research findings by McDougall and Levesque (2000) and Fornell *et al.* (1996) indicated that perceived value contributed directly to customer satisfaction, which in turn led to future intentions. When consumers have a positive perception, it may drive them to trust the brand. Trust is the fundamental driver of loyalty because it creates an exchange that is extremely valued (Xiao & Hawley, 2009). Thus, the perceived value is shown to have a positive influence on customer satisfaction. Therefore, it is hypothesised that:

Hypothesis 3:

Perceived value has a positive effect on customer satisfaction.

Customer satisfaction is recognized as one of the important antecedents to loyalty. It is also believed that customer satisfaction is able to influence the repeat

purchase behaviour of consumers because high customer satisfaction levels will lead to customer retention (LaBarbera & Mazursky, 1983; Reichheld & Sasser, 1990; Fornell, 1992; Day, 1994). Research conducted by Yang and Peterson (2004) indicated a positive relationship between satisfaction and loyalty. The research finding is supported by other researchers like Cronin and Taylor (1992), Homburg and Giering (2001), and Mittal *et al.* (1998). The research findings proposed by Choi *et al.* (2008) and Faullant *et al.* (2008) also showed that customer satisfaction would lead to customer loyalty. Therefore, it is hypothesised that:

Hypothesis 4:

Customer satisfaction has a positive effect on customer loyalty.

METHODS

In this study, a questionnaire was used to collect the required data. The questionnaire was divided into six sections: A, B, C, D, E and F. Section A consisted of 6 questions adopted from Erdem and Swait (1998), and they focused on perceived credibility. Section B consisted of 4 questions on perceived quality which were adopted from Strizhakova, Coulter and Price (2008). Section C consisted of 4 questions relating to perceived value, which were also adopted from Strizhakova, Coulter and Price (2008). Section D consisted of 3 questions adopted from Cronin, Brady and Hult (2000), which focused on customer satisfaction. Section E consisted of 3 questions focussing on

customer loyalty, and they were adopted from Lin and Wang (2006). Lastly, Section F served to gather information on the demographic background of the respondents. The questionnaire was pilot-tested before it was being distributed to 100 young adult respondents located in Kuala Lumpur. The young adults were chosen as the respondents because they were deemed to be more brand conscious and fashion conscious when purchasing fashion products (Wang *et al.*, 2000). Due to time and financial constraints, the convenience sampling method was adopted for this study in order to obtain a large number of data from the respondents.

A descriptive analysis was used to describe the basic characteristics. The data of the sample were summarised in a straightforward and understandable manner, and then analysed based on the respondents'

demographic profiles, which included gender, ethnicity, age, and personal monthly income. In addition, Pearson's correlation coefficient was also used to test three independent variables (brand credibility, brand perceived quality, and perceived value) that influenced dependent variable (customer satisfaction). Finally, a multiple regression analysis was used because it allows the researchers to determine the variables that best predicted the overall results obtained from the respondents.

RESULTS AND DISCUSSION

Respondents' Demographic Profiles

The demographic profiles of the respondents are shown in Table 1. In this study, the demographic profiles of the respondents are described in terms of gender, ethnicity, age, and personal monthly income.

TABLE 1
Respondents' Demographic Profiles

Variables	Values	No. of Respondents	Percentage (%)
Gender	Male	40	40
	Female	60	60
Ethnicity	Malay	69	69
	Chinese	23	23
	Indian	7	7
	Others	1	1
Age	Below 20	5	5
	21 - 25	64	64
	26 - 30	18	18
	31 - 35	9	9
	36 - 40	4	4
Income	Less than RM2000	48	48
	RM2001 - RM4000	12	12
	Above RM4000	7	7
	Parental contribution /	33	33
	Scholarship / Study loan		

Reliability Test

Cronbach's Alpha is commonly used to measure the reliability and the internal consistency of results. Nunnally and Bernstein (1994) suggest that a cut-off Cronbach's Alpha value of 0.70 as acceptable reliability coefficient. The closer the Cronbach's Alpha (α) coefficient is to the value of 1, the higher the internal consistency is. This implies that there are high inter-correlations among the items in the specific variable. The results of the reliability test of this study are tabulated in Table 2. As can be noted from Table 2, the Cronbach's Alpha values range from 0.71 to 0.94, indicating that the scales used in this study are reliable.

Pearson's Correlation Analysis

Table 3 shows the relationship between the independent variables (brand credibility,

perceived quality, and perceived value) and the dependent variable (customer satisfaction). The Pearson's correlation test, which was used in the study, revealed significant and positive relationships between all the independent factors and customer satisfaction towards internationally branded clothes. These are proven by all the three positive correlation coefficient values and the significant values of 0.000.

As shown in Table 3, the highest level of correlation coefficient is 0.590. The results imply a significant and strongly positive correlated relationship with a magnitude of 59.0% between brand credibility and customer satisfaction at the significance level ($p < 0.05$). This implies that consumers of imported apparel favour brand credibility when they have a positive trust in the brand. Thus, they will gain satisfaction from their purchases if they trust the particular brand.

TABLE 2
Results of Reliability Analysis

Variables	No. of Items	Cronbach's Alpha (α)
Brand Credibility	6	0.71
Perceived Quality	4	0.88
Perceived Value	4	0.94
Customer Satisfaction	3	0.88
Customer Loyalty	3	0.84

TABLE 3
Pearson's Correlation Analysis

Variables	Correlation Coefficient	Sig. (1-tailed)**
Brand Credibility	0.590	0.000
Perceived Quality	0.500	0.000
Perceived Value	0.494	0.000
Customer Satisfaction	0.787	0.000

**.Correlation is significant at the 0.01 level (1-tailed).

In addition, perceived quality was found to have a strong, positive and significant relationship with customer satisfaction. The correlation coefficient between these two variables is considered as strong ($r = 0.500$) based on Cohen's (1988) guidelines. When customers perceive an imported apparel brand to have good quality, they are likely to become more satisfied with their purchases.

Based on the findings, there was a significant and positive relationship between the customers' perceived value and their satisfaction towards imported clothing. This is supported by the coefficient correlation value of 0.494, with a magnitude of 49.4%. This value also signifies a medium relationship between the two variables. A good perception of the value of a certain brand can lead to a better customer satisfaction on the internationally branded apparel, and vice versa.

The research findings have shown the coefficient correlation of 0.787 with a significant value of 0.000, implying a significant and strong correlated relationship between customer satisfaction and customer loyalty. This suggests that as long as the respondents are satisfied with a specific imported apparel brand, they will likely remain loyal to that brand. The findings also indicated that the respondents would have the intention to repurchase even though the item was highly priced. This factor is considered to be very important for Malaysians to be loyal to a brand, and the imported brand apparel company will lose its customers if it cannot make them feel satisfied with its product offering. As a

consequence, the customers may switch to another brand as a substitute.

Regression Analysis

In this study, the multiple regression analysis technique was used to measure and predict the most important independent variables, and the factors that are least important to the dependent variable. Generally, a multiple regression analysis was used to test hypotheses H1, H2, and H3, as the three independent variables (brand credibility, perceived quality, and perceived value), that might affect customer satisfaction. The multiple regression equation for customer loyalty is as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_nX_n + e$$

Where:

Y = dependent variable

a = Y intercept of the regression model

b = slope of the regression model

X = independent variables

e = error

In this study, a simple regression analysis was used to test the hypothesis, H4, as it was a one-to-one relationship which could help to explain the relationship between customer satisfaction and customer loyalty towards purchasing internationally branded apparel.

Table 4 shows the results obtained from the multiple regression analysis. R square is the proportion of variation (%) in the dependent variable explained by the independent variable. The Beta coefficient

indicates the strength of the independent variable associated with the dependent variable. From Table 4, the R square value is 0.435. Thus, the researcher concluded that 43.5% of customer satisfaction on the purchase of imported apparel were explained by the brand credibility, perceived quality, and perceived value with regard to the brand. From these results, it can be concluded that all the three independent variables were positive and significant ($p < 0.05$) with an F value of 24.591.

Hypothesis 1 indicates that brand credibility will positively affect customer satisfaction. According to Hennig-Thurau *et al.* (2002) and Harris and Goode (2004), customer satisfaction is affected by the level of trust that the customers have towards the service. Hence, this may indicate that expertise is a way to gain customer satisfaction in the business environment. The results presented in Table 4 indicate a significant relationship between brand credibility and customer satisfaction (p value = 0.000, $P < 0.05$). It has also previously been explained in the Pearson's correlation analysis that these two variables are positively correlated. Therefore, hypothesis 1 is supported.

Hypothesis 2 indicates that perceived quality positively affects customer satisfaction. As the p-value of the perceived quality shown in the multiple regression test is 0.039 ($p < 0.05$), this variable is accepted to be significant and implies that there is a significant relationship between perceived quality and customer satisfaction. This finding is consistent with the result obtained by Sivadass and Baker-Prewitt (2000) and Olsen (2002). Therefore, hypothesis 2 is supported.

Hypothesis 3 indicates that perceived value has a positive effect on customer satisfaction. According to Fornell *et al.* (1996), the perceived value and customer satisfaction have been proven to be positively correlated. The results from Table 4 indicate a significant relationship between perceived value and customer satisfaction. This means that perceived value has a direct impact on customer satisfaction. This finding is supported by the results of Zeithaml (1988), and McDougall and Levesque (2000). Therefore, hypothesis 3 is supported.

As for the relative importance of each significant predictor in the analysis, the standardized coefficients shown in Table 4 indicate that brand credibility is the most

TABLE 4
Coefficient Result of Multiple Regressions

Variables	b	Beta	t	P
Constant	1.120		2.176	0.032
Brand credibility	0.578	0.397	4.324	0.000
Perceived Quality	0.166	0.199	2.096	0.039
Perceived Value	0.165	0.204	2.169	0.033
F = 24.591	R = 0.659		R ² = 0.435	

important predictor of customer satisfaction by having the highest Beta coefficient (0.397), followed by perceived value (Beta = 0.204), and perceived quality (Beta = 0.199).

The multiple regression equation derived from the output is as follows:

$$\begin{aligned} \text{Customer Satisfaction} \\ = 1.120 + 0.578 (\text{Brand Credibility}) \\ + 0.166 (\text{Perceived Quality}) \\ + 0.165 (\text{Perceived Value}) \end{aligned}$$

The equation reflects that for every unit increase in brand credibility, the customer satisfaction goes up by 0.578, conditional upon other variables being constant. Where there is a unit increase in perceived quality, the customer satisfaction goes up by 0.166, conditional upon other variables being constant. Similarly for every unit increase in perceived value, the customer satisfaction goes up by 0.165, conditional upon other variables being constant.

Hypothesis 4 indicates that customer satisfaction has a positive effect on customer loyalty. A simple regression test was conducted and it was found that R Square had a value of 0.619 with an F value of 159.402. This denotes that 61.9% of the respondents' loyalty towards internationally branded clothes is measured and explained by their satisfaction with the brand. The results of the regression analysis prove that there is a significant relationship between customer satisfaction and customer loyalty. The significant p-value is 0.000 ($p < 0.05$). This finding is consistent with the result obtained by Faullant *et al.* (2008), Yang

and Peterson (2004), Choi *et al.* (2008), and Binninger (2008). In this regard, customer satisfaction with the purchase of imported apparel has a positive effect on their loyalty to the brand. Thus, hypothesis 4 is supported.

CONCLUSIONS

The objectives of this study are to examine the factors affecting customer satisfaction towards internationally branded clothes, and to determine the relationship between customer satisfaction and customer loyalty. The relationship between brand credibility, perceived quality, perceived value and customer satisfaction with brand loyalty was tested and the results obtained showed that all the dimensions were proven to have a significant positive relationship with brand loyalty. Of the three, the results indicated brand credibility as the most important predictor of customer satisfaction, followed by perceived value and perceived quality.

The research findings help to better understand consumers' perceptions towards purchasing internationally branded clothes and provide useful information to fashion industry marketers in improving their products and customer relationship management. In addition, the findings also revealed that customer satisfaction could lead to creating customer loyalty towards internationally branded clothes. The fashion industry marketers can optimize the information to find solutions to retain their existing and loyal customers.

REFERENCES

- Agbonifoh, B. A., & Elimimian, J. U. (1999). Attitudes of developing countries toward Country-of-Origin products in an era of multiple brands. *Journal of International Consumer Marketing*, 11(4), 97-116.
- Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994). Customer satisfaction, market share, and profitability: Findings from Sweden. *Journal of Marketing*, 58(3), 53-66.
- Binninger, A. S. (2008). Exploring the relationships between retail brands and consumer store loyalty. *International Journal of Retail & Distribution Management*, 36(2), 94-110.
- Bitner, M. J., Booms, B. H., & Mohr, L. A. (1994). Critical service encounters: The employee's viewpoint. *Journal of Marketing*, 58(4), 95-106.
- Bobinski, G. S., Dena, C., & Anthony, C. (1996). Retail "sale" advertising, perceived retailer credibility, and price rationale. *Journal of Retailing*, 72(3), 291-306.
- Bowen, J. T., & Chen, S. L. (2001). The Relationship between Customer Loyalty and Customer Satisfaction. *International Journal of Contemporary Hospitality Management*, 213-217.
- Brady, M., & Robertson, C. (2001). Searching for consensus on the antecedent role of service quality and satisfaction: An exploratory cross-national study. *Journal of Business Research*, 51(1), 53-60.
- Carpenter, J. M., & Fairhurst, A. (2005). Consumer shopping value, satisfaction, and loyalty for retail apparel brands. *Journal of Fashion Marketing and Management*, 9(3), 256-269.
- Choi, J., Seol, H., Lee, S., Cho, H., & Park, Y. (2008). Customer satisfaction factors of mobile commerce in Korea. *Internet Research*, 18(3), 313-335.
- Cohen, J. (1988). *Statistical power analysis for the behavioural science (2nd ed.)*. New Jersey: Lawrence Erlbaums Associates.
- Cronin, J., Brady, M., & Hult, G. (2000). Assessing the effects of quality, value, and customer satisfaction on behavior intentions in service environments. *Journal of Retailing*, 76(2), 193-218.
- Cronin, Jr., J. J., & Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing*, 56(3), 55-68.
- Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, 58(4), 37-52.
- Erdem, T., & Swait, J. (1998). Brand Equity as a Signalling Phenomenon. *Journal of Consumer Psychology*, 7(2), 131-157.
- Faullant, R., Matzler, K., & Füller, J. (2008). The impact of satisfaction and image on loyalty: The case of alpine ski resorts. *Managing Service Quality*, 18(2), 163-178.
- Fornell, C. (1992). A national customer satisfaction barometer: The Swedish experience. *Journal of Marketing*, 56(1), 6-12.
- Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., & Bryant, B. E. (1996). The American customer satisfaction index: Nature, purpose, and findings. *Journal of Marketing*, 60(4), 7-18.
- Franco, J. J. (1990). Customer satisfaction: the partnership imperative. *Training and Development Journal*, 44(7), 80-82.
- Grant, I. J., & Stephen, G. R. (2005). Buying behaviour of 'teenage' girls and key societal communicating factors influencing their purchasing fashion clothing. *Journal of Fashion Marketing and Management*, 9(4), 450-467.
- Hallowell, R. (1996). The relationships of customer satisfaction, customer loyalty, and profitability: An empirical study. *International Journal of Service Industry Management*, 7(4), 27-42.

- Harris, L. C., & Goode, M. M. H. (2004). The four levels of loyalty and the pivotal role of trust: a study of online service dynamics. *Journal of Retailing*, 80, 139–158.
- Hennig-Thurau, T., Gwinner, K. P., & Gremler, D. D. (2002). Understanding relationship marketing outcomes. *Journal of Service Research*, 4(3), 230–247.
- Homburg, C., & Giering, A. (2001). Personal characteristics as moderators of the relationship between customer satisfaction and loyalty: An empirical analysis. *Psychology and Marketing*, 18(1), 43–66.
- Kim, E. Y., Knight, D. K., & Pelton, L. E. (2009). Modeling brand equity of a U.S apparel brand as perceived by Generation Y consumers in the emerging Korean market. *Clothing and Textiles Research Journal*, 27(4), 247–258.
- Kwambata, H., & Nancy, J. R. (1999). Comparison of clothing purchase behaviour between US and Japanese female university students. *Journal of Consumer Studies and Home Economics*, 23(4), 213–223.
- LaBarbera, P. A., & Mazursky, D. (1983). A longitudinal assessment of consumer satisfaction, dissatisfaction: The dynamic aspect of cognitive process. *Journal of Marketing Research*, 20(4), 393–404.
- Li, Z. G., Fu, S., & Murray, L. W. (1997). Country and product images: The perceptions of consumers in the People's Republic of China. *Journal of International Consumer Marketing*, 10(1–2), 115–138.
- Lin, H. H., & Wang, Y. S. (2006). An examination of the determinants of customer loyalty in mobile commerce contexts. *Information & Management*, 43(3), 271–282.
- Malhotra, N. K. (2001). Cross-cultural marketing research in the twenty-first century. *International Marketing Review*, 18(3), 230–234.
- Malhotra, N. K., & Agarwal, A. (2002). A stakeholder perspective of relationship marketing: Framework and propositions. *Journal of Relationship Marketing*, 1(2), 3–37.
- Marcoux, J. S., Filiatrault, P., & Chéron, E. (1997). The attitudes underlying preferences of young urban educated polish consumers towards products made in western countries. *Journal of International Consumer Marketing*, 9(4), 5–29.
- Matlack, C., Brady, D., Berner, R., Tiplady, R., & Tashiro, H. (2004). The Vuitton money machine. Inside the world's biggest, most profitable luxury brand. *Business Week*, 3875(48).
- McDougall, G. H. G., & Levesque, T. (2000). Customer satisfaction with services: Putting perceived value into the equation. *Journal of Service Marketing*, 14(5), 392–410.
- Mittal, V., Ross, W. T. R., & Baldasare, P. M. (1998). The asymmetric impact of negative and positive attribute-level performance on overall satisfaction and repurchase intentions. *Journal of Marketing*, 62(1), 33–47.
- Moon, B. J., Park, W. & Choi, S. C. (2010). Relationships among brand equity components: an exploratory study of the moderating role of product type. *Journal of Global Academy of Marketing Science*, 20(1), 98–109.
- Ndubisi, N. O. (2006). Effect of gender on customer loyalty: A relationship marketing approach. *Marketing Intelligence and Planning*, 24(1), 48–61.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- O'Shaughnessy, J. (1971). Selling as an interpersonal influence process. *Journal of Retailing*, 47(4), 32–46.
- Olsen, S. O. (2002). Comparative evaluation and the relationship between quality, satisfaction, and repurchase loyalty. *Journal of the Academy of Marketing Science*, 30(3), 240–249.

- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60, 31-46.
- Raju, J. S., Srinivasan, V., & Lal, R. (1990). The effects of brand loyalty on competitive price promotional strategies. *Management Science*, 36(3), 276-304.
- Reichheld, F. F., & Sasser, W. E. Jr. (1990). Zero defections: Quality comes to services. *Harvard Business Review*, 68(5), 105-111.
- Reichheld, F. F., & Teal, T. (2001). *The Loyalty Effect: The Hidden Force Behind Growth, Profits, and Lasting Value*. Boston: Harvard Business School Press.
- Schiffman, L. G., & Kanuk, L. L. (1994). *Consumer Behavior (5th ed)*. New Jersey: Prentice-Hall.
- Sivadass, E., & Baker-Prewitt, J. L. (2000). An examination of the relationship between service quality, customer satisfaction, and store loyalty. *International Journal of Retail and Distribution Management*, 28(2), 73-82.
- Strizhakova, Y., Coulter, R., & Price, L. (2008). The meanings of branded products: A cross-national scale development and meaning assessment. *International Journal of Research in Marketing*, 25(2), 82-93.
- Sweeny, J. C., & Soutar, G. N. (2001). Consumers perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203-220.
- Wang, C. L., Chen, Z. X., Chan, A. K. K., & Zheng, Z. C. (2000). The influence of hedonic values on consumer behaviours: An empirical investigation in China. *Journal of Global Marketing*, 14(1/2), 169-186.
- Wong, F. Y., & Sidek, Y. (2008). Influence of brand loyalty on consumer sportswear. *International Journal of Economics and Management*, 2(2), 221 – 236.
- Wray, B., Palmer, A., & Bejou, D. (1994). Using neural network analysis to evaluate buyer-seller relationships. *European Journal of Marketing*, 28(10), 32-38.
- Xiao, T., & Hawley, J. M. (2009). Measuring customer-based brand equity: Empirical evidence from the sportswear market in China. *Journal of Product and Brand Management*, 18(4), 262-271.
- Yang, Z., & Peterson, R. T. (2004). Customer perceived value, satisfaction, and loyalty: The role of switching costs. *Psychology and Marketing*, 21(10), 799-822.
- Yang, Z., Peterson, R. T., & Cai, S. (2003). Services quality dimensions of internet retailing: An exploratory analysis. *Journal of Services Marketing*, 17(7), 685-700.
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22.

Perception of Gender Communication Competence of Leaders in a Malaysian Higher Education

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ABSTRACT

Leadership communication competence is known to be a key element in organizational success. The present study examines leadership communication competence in an institution of higher learning in Malaysia. The study delved into subordinates' perception of their leaders' encoding and decoding skills and found that these leaders have a relatively high encoding and decoding skills. When comparing between males and females, it was found that the males scored higher in both skills. This result seems similar to the western literature on gender communication but purportedly with different reasons for why men scored higher than women. This study, thus, contributes to the literature on the influence of culture in relation to the perception of gender communication competence.

Keywords: Communication competence, gender, encoding, decoding, leaders, Malaysian Higher Education

INTRODUCTION

In the past, leadership research focused on studies of traits, behaviours, and situational factors. Communication was assumed to be a part of doing leadership but not as one of the required skills of leadership. Only about six decades ago when organizational communication became illuminant in organizational studies that researchers began

to study leadership communication as a key element in workplace effectiveness. The present study intends to further contribute to this body of research by examining leadership communication competence, particularly the encoding and decoding communication skills of the male and female leaders in an institution of higher learning in Malaysia.

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Leadership and Communication Competence

According to Hackman and Johnson (2004), leadership is a “form of human (symbolic)

communication” (p. 31). Job satisfaction and work performance seem to be influenced by employees’ perception of leadership communication. With effective strategic plans and appropriate application of relevant communication principles and knowledge, organizations are able to excel. Holmes *et al.* (2002) assert that:

Doing leadership’ entails competent communicative performance which, by influencing others, results in acceptable outcomes for the organization (transactional/ task-oriented goal), and which maintains harmony within the team or community of practice (relational/people-oriented goal).

Various studies have shown that there is a positive relationship between leadership communication and employee work-related variables (e.g., Rafferty & Griffin, 2004). Leaders who show concern and demonstrate friendliness towards employees tend to be rated high for desirable leadership behaviour as compared to those who are less friendly and caring. Meanwhile, others perceive immediacy as a positive attribute of leadership (Bosman, 2011). Even though communication competence lacks emphasis in the development of leadership theories, the important role of communication is significantly obvious in theories, especially where leader-member relationship matters such as servant leadership, transformational leadership, charismatic and authentic leadership. For example, Burns (1978) presented an employee-centred perspective

of leadership that is transformational leadership, where within this paradigm, communication is an important leadership quality through the demonstration of individualized consideration, inspirational motivation, intellectual stimulation, and idealized influence (Bass, 1990). These transformational leaders have strong communicative capability that enables them to articulate a clear and vivid vision and to display desirable and strong relational behaviours in order to stay connected with their followers. Additionally, Barge (1994) asserts that:

The key to more complex leadership behavior and more adaptability to new situation is good communication skills

In the organizational setting, a company benchmarked for its organizational leadership communication is General Electric Company (GE). Cushman and King (1995) regard GE “a World-Class Leadership Communication System” and Jack Welch, the former CEO of GE, a highly effective communicator based on the company’s repeated success and Welch’s recognitions by notable business magazines such as *Fortune 500*, *Financial Times* and *Chief Executive Magazine*. According to Cushman and King, Welch’s successful performance of transformational leadership was founded on a “backbone leadership communication process”, where Welch incorporates a clear articulation of the company threats and a vision in dealing with

the threats (p. 6). On top of these excellent functional communication skills, Welch also acknowledges the need to address the human side of communication, stating that “the leader must become an even more engaged coach, an even more engaging person. You’re going to have to create an environment where excitement reigns, where the challenges are everywhere, and where the rewards are both in the wallet, yes, but also in the soul” (cited in Walmsley, 2003).

For the most parts, leadership is about effective communication. In order to gain employee compliance, persuade them, balance power relations, and effect positive interactions, a leader ought to be communicatively competent. Leadership communication competence can be observed through demonstration of effective communication skills. Two sets of communication skills essential to leadership effectiveness are functional and emotional skills (Hackman & Johnson, 2004). According to Hackman and Johnson, functional communication skills are those initiatives which involve: (1) connecting internal and external organizational members; (2) thinking and reasoning to solve problems and develop plans and visions; and (3) regulating through influential processes such as negotiation and compliance gaining. Emotional communication skills, on the other hand, entail: (1) perception, appraisal, and expression of emotion; (2) attending to the emotions of others; (3) emotional facilitation of thinking; (4) understanding and analyzing emotional information and

employing emotional knowledge; and (5) regulation of emotion.

In an organizational context, communication is both a process and a product of organizational functioning (Sypher, 1984), without which, organizations may not accomplish their set goals if a large number of members in the organization lack effective communication skills. Spitzberg and Cupach (2002) state that the “skill in interpersonal communication is essential to an individual’s ability to manage relationships” (p. 567), which applies to any kind of interaction, be it in friendships, marriages, or the workplace. Implied in the importance of effective communication is the ability to communicate competently.

In the Malaysian context, culture plays a big role in communication. As a country which is comprised of three main ethnic groups; the Malays (60.3%), Chinese (22.9%) and Indians (7.1%) (statistics from the 2010 Census, Wikipedia, 2012), the perceptions of communication competence can be varied. On this note, Asma (1996) asserts that, “while we differ in many symbolic expressions, our common denominator lies in our deep-seated Asian values” (p. xiii). In a similar study of the Malaysian three ethnic groups on workplace communication competence, Choon (2004) found three dimensions of communication competence emerged: self-confidence, respect-relational and, self-image. Looking at the communication style of one of these ethnic groups, Lailawati (2006) contends that for the Malaysian Malays, their communication is partly shaped

by the religion they embrace. Similarly, Asma (1996) recommended that Malay leaders and managers who wish to win the hearts and minds of their subordinates are expected to role model their behaviours based on the cultural and religious values of their subordinates. Asma continues to provide suggestions on Malaysian effective leadership behaviours (and hence, communication), which include building relationships, demonstrating expertise in both technical and human management, expressing concern for subordinates' welfare, as well as development through *IMAN* (faith in God) and sharing stories through talks and chats.

Communication can be studied from several perspectives (Krone *et al.*, 1987). The mechanistic perspective views human communication as a transmission process with channel as the locus of communication. The psychological perspective centres on the effects of individuals' characteristics on communication via informational stimuli, while the interpretive-symbolic perspective maintains individuals' ability to create and shape social reality through their communication process. Finally, the systems-interaction perspective focuses on the overall communication system which produces the patterned sequential behaviour within the system.

For the present research, the study of organizational leadership communication employs the psychological perspective in that the locus of communication process is "conceptual filters" that consist of attitudes,

cognitions, and perceptions. Subsequently, these conceptual filters are, not only, those internal states of the mind which conveys the intended information but also the way how information is processed (Krone, Jablin, & Putnam 1987, p. 25) by encoding and decoding information from the environment. Subordinates were asked to perceive their leaders communication competence (encoding and decoding skills) using the Communication Competence Questionnaire.

METHOD

Organization

The chosen organization for the study was an institution of higher learning located in Peninsular Malaysia, known as SSM. This institution has 16 faculties ranging from Social Sciences to Medicine. Apart from the faculties, there are institutes to cater for students who opt to do research in specific fields of study and seven administrative units, with 28 other support units. SSM was staffed by 4,494 employees in the various academic, as well as administrative units, with 284 (6.32%) in upper and middle-level managerial positions. Some units have lower level managers but this level was not included in the study to increase the manager-subordinate ratio, particularly for the smaller units, which have less than 5 staff members. The study involved 184 managerial level participants and 1114 subordinates.

Measurement

The Communication Competence Questionnaire (CCQ) was used to measure leaders' communication competence. The scale was developed by Monge, Backman, Dillars, and Eisenberg (1982). These researchers derived organizational communication skills factors from the works by Norton (1978), Berlo (1960), and Farace, Taylor, and Stewart (1978), where encoding and decoding skills appear to be pertinent in the organizational contexts.

The scale can be used to evaluate superiors' or subordinates' communication competence and generally takes about five minutes to complete. For the purpose of this study, items in the CCQ measured leaders' organizational communication competence. The instrument has 12 items with two subscales; one on encoding skills and the other, decoding skills. The encoding skills subscale consists of seven items for example, "gets right to the point" and the decoding skills subscale has five items for example, "easy to talk to." After testing for face validity, the responses which were based on a seven-point scale varying from a strong Yes (*YES!*) to a strong No (*NO!*) were changed to numerical figures of 1 (strongly disagree) to 7 (strongly agree).

According to Monge *et al.* (1982), the CCQ has an internal reliability with an average of .85 for both superior and subordinates. Papa and Tracy (1988) reported that the encoding and decoding subscale correlated highly (.95), and collapsed both factors into a single competence factor. They also found a reliability of .98.

For the current study, the CCQ has an overall reliability of .86. In order to determine internal consistency of the items, this scale was evaluated further by the split-half reliability procedure (see for e.g., Aron & Aron, 1997; Garson, 2006), where the scale was split between the encoding and decoding items. Guttman split-half coefficient shows a moderately high reliability of .811.

The scale intercorrelations ranged from .76 to .92. All the inter-item intercorrelations were highly significant ($p < .001$), except for the intercorrelation of items 1 and 7, which was at $p = .05$. The high positive intercorrelations also suggested that all the items in this scale had done what they were intended to do, i.e. to measure organizational communication competence consistently.

Participants

Participants were subordinates of SSM. The unit of analysis were the managers, who will be referred to as leaders throughout this study. At the time the study was conducted, SSM had 284 leaders in the various organizational positions. Some of these leaders were stationed at facilities away from the main campus, while others were unavailable or unwilling to participate, and thus, leaving 184 leaders available for the study. There were 4,494 non-managerial employees, whereby 1,114 participated in the study.

Out of 4,494 employees, 1114 were selected considering the dispersed location of the units and time frame for the data collection (follow-up on the data collection

took up a considerable amount of time). Hence, to reduce error limit so that the researcher can be confident that the sample respondents were representatives of the population (Wunsch, 1986), a ratio of 1:5 for leader to subordinates was sampled. Thus, if a unit has less than five employees, all the subordinates were asked to participate. Nonetheless, where there were more than five subordinates in a unit, a systematic random sampling was done. The questionnaires, together with a list of selected participants, were left with the leader's secretary to distribute. When returned, the completed questionnaires were not exactly the participants chosen earlier due to the lack of response or the participants were away from their office at the time when the questionnaires were distributed. A total of 452 questionnaires were returned but 130 of the responses were not usable either because the leaders whom the subordinates had evaluated were not those selected for the study or that the subordinates' responses were incomplete. The survey yielded a response rate of 40.5%, which can be considered good since the common response rate for a workplace survey in Malaysia is between 10-20%. However, usable data were 29.8%.

Other than the non-managerial subordinates who evaluated their leaders' communication competence, some leaders were also asked to evaluate their superiors since these leaders were themselves subordinates to their superiors (except for the top most official). One hundred and eighty-four sets of instruments were distributed

to the leaders, where 123 responded. Only 118 were usable. Since these leaders also evaluated their superior's communication competence, their responses were combined with the responses from the non-managerial subordinates. In total, the survey yielded 575 responses, which is a 44.3% response rate and 34.7% usable data. Table 1 shows a summary of the number of participants and the responses for the study.

RESULTS AND DISCUSSION

Unit of analysis was leaders whom the participants evaluated. From 118 responses, 114 leaders matched the leader-subordinate criteria. The demographic profile of these leaders is given in Table 2. There were 84 males (74%) and 30 females (26%) between the ages of 31 and 59 years, with $M = 49.42$ and $SD = 5.21$. Seventeen participants did not report their ages. About 90% of the leaders have postgraduate education while the remaining 10% have either a bachelor degree or a college diploma degree. All the leaders were Malays.

Mean for leadership communication competence was 5.59, with a standard deviation of 0.65. This result shows a fairly high level of communication competence. To tease out more meaningful information from the data, demographic variables such as gender, age, and education were examined to see if these variables have relationship with the leaders' organizational communication competence. Table 3 shows that only gender has a significant correlation with communication competence ($r = .28, p < .01$). This result provides a

TABLE 1
Summary of the Returned and Usable Questionnaires

Instrument	Participants	Number of returned questionnaires	Number of usable questionnaires
CCQ	non-managers	452 (40.5%)	332 (29.8%)
	managers	123 (66.8%)	118 (64.1%)
	Total subordinates	575 (44.3%)	450 (34.7%)

TABLE 2
Demographic Profile of the Leaders

	Male	Female
Education		
Postgraduate	76	26
Bachelor or college diploma	8	4
Total	84	30
Age		
31 – 39 years old	2	4
40 – 49 years old	35	15
50 – 59 years old	33	18
Total	70	27

warrant to further examine whether there is a significant difference between male and female communication competence, particularly between the subscales of organizational communication competence, namely, encoding and decoding skills.

T-test was run to determine any significant difference between male and female communication competence. The results (Table 4) show that the mean for gender is significantly different at $t(111) = 3.07$, $p = .003$. Both male and female scores were relatively high, but the male leaders ($M = 5.69$, $SD = .59$) seem to demonstrate a higher level of organizational communication competence as compared to the female leaders ($M = 5.28$, $SD = .72$).

To make sense of the underlying scores, the subscales of CCQ were examined. Both

male and female leaders demonstrated a higher level of decoding skills as compared to their encoding skills. This shows that leaders in SSM are sensitive when speaking with their subordinates. The subordinates feel that their leaders pay attention to what they have to say and respond favourable (e.g., *My superior pays attention to what other people say to him or her* and *My superior usually responds to messages (memos, phone calls, reports, etc.) quickly*). This is important in building relationships between leaders and subordinates. In fact, one of the most important skills in communication is listening skills and it seems that SSM subordinates acknowledge that their leaders have good listening skills. Also, even though encoding skill was indicated as lower than decoding skills, the mean for

TABLE 3
Correlations between Leaders' Demographic Variables and Communication Competence

	Gender	Age	Education	Communication Competence
Gender	1.0	.25*	.05	.28**
Age		1.0	-.06	.01
Education			1.0	.01
Communication competence				1.0

** Correlation is significant at $p < .01$ level (2-tailed).

* Correlation is significant at $p < .05$ level (2-tailed).

TABLE 4
Mean of Communication Competence Questionnaire (CCQ) Subscales

	N	Mean	SD	Encoding	Decoding
Gender					
Male	84	5.69	.59	5.64	5.76
Female	30	5.28	.72	5.26	5.40
Total	114	5.59	.65	-	-

encoding skills is still relatively high. The subordinates do believe that their leaders have the technical skills, as well as the ability to convey information clearly and effectively. Revisiting Asma's (1996) recommendation about winning the hearts and minds of subordinates, the results of this study demonstrate that SSM leaders do build relationships, demonstrate care and concern for employees' well-being, and share stories. As someone in a leadership position, SSM leaders seem to have the skills to get work done through their subordinates. With a high ability to compose ideas and to say what they would in a manner acceptable to subordinates, these leaders are more likely to be adored and respected by their subordinates.

Another interesting finding is that males are perceived to have higher communication competence than the females in both encoding and decoding skills, and this

makes it appear as though female leaders are perceived as less competent than their male counterpart. This may not be entirely true since both the males and females received relatively high scores. It is just a matter of perception that men tend to score higher than females. In relation to this observation, Barrett and Davidson (2006) shared their views in *Gender and Communication at Work*, which exemplifies that women are denounced on their communication skills, and hence leadership skills, as they are often seen as more emotional than men when speaking. When these women (who are in higher positions) tend to communicate in a more masculine manner, they are less favourably accepted by their subordinates. That said, it could well be that the higher communication competence perception of male leaders is influenced by cultural background or stereotyping female social role.

CONCLUSION

This study has shown that leaders in an institution of higher education in Malaysia, SSM, demonstrate a relatively high score in competence with regards to workplace communication. Subordinates perceive male leaders to have higher encoding and decoding skills than female leaders. What makes this finding interesting is that women, who believe in relationships and their action speaks “in a language of connection and intimacy” (Gleason, 1994), receive lower scores compared to men who speak their mind and display masculine communication style. The question is, “why do women receive lower scores in communication competence, when in fact, naturally, they demonstrate more care and concern in their communication?”

Some of the answers to the question above may lie in the studies below:

1. A study on affect display found that subordinates send negative affect signals (e.g., frowns) to women who are in authority positions (Koch, 2005).
2. In the western context, volubility is a form of power display. Men tend to exhibit volubility compared to women who prefer less aggressive communication style (e.g. participative or democratic). The lack of aggressiveness is perceived as lack of power, hence, communication (Schullery, 1998).
3. Women are expected to behave in a manner congruent to their gender role, so when they violate this expectation (due to their leadership position), they

are seen as lack communication skills (Mohr & Wolfram, 2008).

von Hippel *et al.* (2011) found women in leadership position as victims of *stereotype threat*. Attempting to remove the negative connotation that women leaders are less effective, they adopted a more masculine communication style. Much to their surprise, they were rated as less warm and likeable because they were acting like “men” - a phenomenon mentioned earlier as contradicting their “female” social role.

Conversely, when men show verbal consideration (which is considered a feminine style of communication), followers level of irritation is lower (Mohr & Wolfram, 2008). Followers perceive that men behave this way because they care.

Based on the studies above, it seems that western women in leadership position are more likely to receive lower evaluation of their communication competence compared to men, simply because they are “female”. Even though westerners consider assertiveness and decisiveness as strong communication skills (Gallios *et al.*, 2006), these may not be so when women are in leadership positions.

Unlike the western culture where assertiveness and decisiveness are strongly encouraged, the Asian culture views this behaviour as less polite. The Asian culture places harmony and relationship high in their value system and behaviours, which threaten what they value as unwarranted. The same goes with communication in that when communication speeches and behaviours seem to disrupt harmony and relationship,

they opt to loosen up the tightness. One way is to be silent like how Kwintessential (2012) noted about Malaysian culture. Kwintessential observed that Malaysians rely on non-verbal communication and prefer subtle and indirect communications. In the traditional Malay culture, women are expected to be less verbal less than men. They should be seen less and stay home to care for their family. This is because women are considered “fragile” and susceptible to harm and injury. Hence, by reducing their presence in the public, the Malay women are believed to be safe. This cultural behaviour is brought to the workplace. Women tend to be more cautious when expressing their views and to maintain harmony. Thus, when dealing with their subordinates, they may tend to say less to appear non-dominating and hope that the subordinates will feel comfortable working with them.

As all of the leaders in this study were Malays, one characteristic of the Malay culture that may contribute to the lower subordinate perception of communication competence of women in contrast to men is respect to those higher in the hierarchy. In her work, Lailawati (2007) discussed the role of religion in shaping the Malay culture. One of the teachings in Islam is to respect the elders and those high in the hierarchy, for example, the *Imam* (religious head) and teachers. It could have been this sense of respect that makes Malay women to refrain from exhibiting their full potential and make way for the men to take the lead - resulting in these perceived lack of communication competence in women.

In short, leadership communication

competence in SSM is considered as relatively high. Both the males and females demonstrate caring and sharing behaviours to make this institution a conducive working place for everyone. SSM has no doubt but to continue supporting those in leadership positions, males and females, to greater heights and potentials.

Finally, the present study has contributed to a perspective on gender difference in leadership communication competence from the east, which seems to bear similar subordinate perception of their leaders' communication competence with the west but with different reasons.

REFERENCES

- Aron, A. & Aron, E. N. (1997). *Statistics for the Behavioral and Social Sciences: A Brief Course*. Upper Saddle River, NJ: Prentice Hall.
- Asma Abdullah. (1996). *Going glocal: Cultural dimensions in Malaysian management*. Kuala Lumpur, Malaysia: Malaysian Institute of Management.
- Barge, J. K. (1994). *Leadership: Communication skills for organization and groups*. New York: St. Martin.
- Barrett, M., & Davidson, M. J. (2006). Gender and Communication at Work: An Introduction. In M. Barrett and M. J. Davidson (Eds.), *Gender and communication at work (Gender and organizational theory* (pp. 1-16). Hampshire: Ashgate.
- Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership: Theory, research, and managerial applications* (3rd ed.). New York: Free Press.
- Berlo, D. K. (1960). *The process of communication*. New York: Holt, Rinehart and Winston.

- Bosman, M. (2011) *Leadership Communication: Improve or Fade Away (Part 3/3)*. Strategic Leadership Institute. Retrieved 23 November 2012, from <http://www.strategicleadershipinstitute.net/news/leadership-communication-improve-or-fade-away-part-3-3-/>
- Burns, J. M. (1978). *Leadership*. New York: Perennial.
- Choon, M. C. (2004). The Malaysian communication competence construct. *Journal of Intercultural Communication Research*, 33(3), 131-146.
- Cushman, D. P., & King, S. S. (1995). *Communication and High-Speed Management*. New York: SUNY Press.
- Eagly, A. H., & Johnson, B. T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin*, 108(2), 233-256.
- Farace, R. V., Taylor, J. A., & Stewart, J. P. (1978). Criteria for evaluation of organizational communication effectiveness: Review and synthesis. In B. D. Ruben (Ed.), *Communication Yearbook 2* (pp. 271-292). New Brunswick, N.J.: Transaction.
- Gallios, C., Callan, V. J., Palmer, J-A. M. (2006). The Influence of Applicant Communication Style and Interviewer Characteristics on Hiring Decisions. *Journal of Applied Social Psychology*, 22(13), 1041-1060.
- Garson, G. D. (2006). *Reliability*. Retrieved on 26 September 2006, from <http://www2.chass.ncsu.edu/garson/pa765/reliab.htm>
- Gleason, N. A. (1994). College Women and Alcohol. *A Relational Perspective Journal of American College Health*, 42(6), 279-289.
- Hackman, M. Z., & Johnson, C. E. (2004). *Leadership: A communication perspective* (4th ed.). Long Grove, Ill: Waveland Press.
- Holmes, J., Schnurr, S., Chan, A., & Chiles, T. (2002). The discourse of leadership. *Te Reo*, 46, 31-46.
- Koch, S. C. (2005). Evaluative Affect Display Toward Male and Female Leaders of Task-Oriented Groups. *Small Group Research*, 36(6), 678-703.
- Krone, K. J., Jablin, F. M., & Putnam, L. L. (1987). Communication theory and organizational communication: Multiple perspectives. In F.M. Jablin, L. L. Putnam, K. H. Roberts, & L. W. Porter (Eds.), *Handbook of organizational communication: An interdisciplinary perspective* (pp. 18-40). Newbury Park: Sage.
- Kwintessential. (2012). Retrieved on 15 November 2012 from <http://www.kwintessential.co.uk/resources/global-etiquette/malaysia.html>
- Lailawati, M. S. (2007). *Communication Competence of Malaysian Leaders as a Function of Emotional Intelligence and Cognitive Complexity*. Unpublished Dissertation, Ohio University.
- Mohr, G., & Wolfram, H-J. (2008). Leadership and Effectiveness in the Context of Gender: The Role of Leaders' Verbal Behaviour. *British Journal of Management*, 19, 4-16.
- Monge, P. R., Bachman, S. G., Dillard, J. P., & Eisenberg, E. M. (1982). Communicator competence in the workplace: Model testing and scale development. In M. Burgoon (Ed.), *Communication Yearbook 5* (pp. 505-527). New Brunswick: ICA.
- Norton, R. W. (1978). Foundation of a communicator style construct. *Human Communication Research*, 4, 99-112.
- Papa, M. J., & Tracy, K. (1988). Communicative indices of employee performance with new technology. *Communication Research*, 15, 524-544.
- Rafferty, A. E., & Griffin, M. A. (2004). Dimensions of transformational leadership: Conceptual and empirical extensions. *Leadership Quarterly*, 15(3), 329-354.

- Schullery, N. M. (1998). The optimum level of argumentativeness for employed women. *Journal of Business Communication*, 35(3), 346-367.
- Spitzberg, B. H., & Cupach, W. R. (2002). Interpersonal skills. In M. L. Knapp & J. A. Daly, *Handbook of interpersonal communication* (pp. 564-612). Thousand Oaks, CA: Sage.
- Sypher, B. D. (1984). The importance of social cognitive abilities in organizations. In R. N. Bostrom (Ed.), *Competence in communication: A multidisciplinary approach* (pp. 103-127). Beverly Hills, CA: Sage.
- von Hippel, C., Wiryakusuma, C., Bowden, J., & Shochet, M. (2011). Stereotype Threat and Female Communication Styles. *Personality & Social Psychology Bulletin*, 37(10), 1312-1324.
- Walmsley, S. (2003). Leadership with a human face; let employees know who you are and they will react positively. *CMA Management*, 77(8), Online ISSN 1207-5183.
- Wikipedia. (2012). *Demographics of Malaysia*. Retrieved 26 Nov 2012 from http://en.wikipedia.org/wiki/Demographics_of_Malaysia
- Wunsch, D. R. (1986). Survey research: Determining sample size and representative response. *Business Education Forum*, 40, 31-34.

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Journal of Social Sciences and Humanities

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(Manuscript Preparation & Submission Guidelines)

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Please read the guidelines and follow these instructions carefully; doing so will ensure that the publication of your manuscript is as rapid and efficient as possible. The Editorial Board reserves the right to return manuscripts that are not prepared in accordance with these guidelines.

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Pertanika is an international peer-reviewed journal devoted to the publication of original papers, and it serves as a forum for practical approaches to improving quality in issues pertaining to tropical agriculture and its related fields. *Pertanika* began publication in 1978 as Journal of Tropical Agricultural Science. In 1992, a decision was made to streamline *Pertanika* into three journals to meet the need for specialised journals in areas of study aligned with the interdisciplinary strengths of the university. The revamped Journal of Social Sciences & Humanities (JSSH) aims to develop as a pioneer journal for the Social Sciences with a focus on emerging issues pertaining to the social and behavioural sciences as well as the humanities, particularly in the Asia Pacific region. Other *Pertanika* series include Journal of Tropical Agricultural Science (JTAS); and Journal of Science and Technology (JST).

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We are continuously improving access to our journal archives, content, and research services. We have the drive to realise exciting new horizons that will benefit not only the academic community, but society itself.

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Pertanika is the official journal of Universiti Putra Malaysia. The abbreviation for *Pertanika* Journal of Social Sciences & Humanities is *Pertanika J. Soc. Sci. Hum.*

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Pertanika began publication in 1978 as the Journal of Tropical Agricultural Science (JTAS).

In 1992, a decision was made to streamline *Pertanika* into **3 journals**. i.e.,

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3. **Journal of Social Sciences and Humanities (JSSH)**

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