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'I/ We, hereby declared that I/We had read through this thesis and
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Panel's Name   : …………………………………..

Date   : …………………………………..

E-COMMERCE ADOPTION AMONG RETAILING SMEs MALAYSIA IN
PERSPECTIVE OF TECHNOLOGICAL ORGANIZATIONAL
ENVIRONMENTAL (TOE) FRAMEWORK

WONG SUE TEAN

The thesis is submitted in partial fulfillment of the requirements for the award of
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Faculty of Technology Management and Technopreneurship

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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DECLARATION

'I declared that this report is the results by my own work, except certain explanations and passages where every part of it is cited with sources clearly stated in Reference."

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Name   :

Date   :

DEDICATION

This thesis is dedicated to my parents and siblings, who have supported me throughout the completion of study spiritually and financially. I must also acknowledge to my coursemates who had helped, assisted, advised, and supported my research idea and effort. Especially. All of my gratitude and deepest appreciation to dearest parents once again onwards their countless commitment on me without asking for any return. I feel appreciated to Mr Soul who have consistently guided me keep perspective on what is important in life and shown me how to deal with reality.

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ABSTRACT

E-Commerce as an issue in Malaysia that is being looking as a significant contribution towards the growth of country economic as more e-Commerce platforms are emerged in the market continuously in these years. Factors that are influencing the adoption need to be highlighted to act as a fostering guideline for more SMEs in Malaysia to be able to adopt e-Commerce successfully in the businesses. The relationships between technological, organizational and environmental context and e-Commerce adoption among SMEs in Malaysia were the main criterion that researcher need to determine in this research. Research design used was descriptive research with questionnaire prepared for respondents to answer. Quantitative research needed to be conducted to better understand the firm's e-commerce adoption level. The primary data and secondary data had been used in the research to achieve all the research contexts. All the objectives in this study had been achieved and research questions were solved using statistical analysis. The implications for researchers and were discussed by providing more perspectives from the analysed results. As the scope of research, sample size backgrounds and cultures difference occurred, the results from this research might differ with previous study by the other researchers. To summarize, there are limitations in this study were discussed with recommendations have been provided as well for the future research.

ABSTRAK

E-dagang sebagai isu di Malaysia yang sedang dilihat sebagai sumbangan penting kepada pertumbuhan negara ekonomi disebabkan lebih banyak platform e-dagang sedang muncul di pasaran secara berterusan dalam tahun-tahun ini. Faktor-faktor yang mempengaruhi penerimaan perlu ditekankan untuk bertindak sebagai garis panduan memupuk untuk lebih banyak PKS di Malaysia supaya dapat menggunakan e-Commerce untuk menjayakan perniagaan. Hubungan antara konteks teknologi, organisasi dan alam sekitar dengan penggunaan e-Commerce di kalangan PKS di Malaysia adalah kriteria utama yang penyelidik perlu menentukan dalam kajian ini. Reka bentuk kajian yang digunakan ialah penyelidikan deskriptif dengan soal selidik disediakan untuk responden untuk menjawab. Penyelidikan kuantitatif perlu dijalankan untuk lebih memahami tahap penggunaan e-dagang syarikat. Data primer dan data sekunder telah digunakan dalam kajian ini untuk mencapai semua konteks penyelidikan. Semua objektif dalam kajian ini telah dicapai dan persoalan kajian telah diselesaikan dengan menggunakan analisis statistik. Implikasi bagi penyelidik telah dibincangkan dengan menyediakan lebih banyak perspektif daripada hasil yang dianalisis. Oleh kerana skop kajian, latar belakang saiz sampel dan budaya perbezaan berlaku, hasil daripada penyelidikan ini mungkin berbeza dengan kajian sebelumnya oleh penyelidik lain. Ringkasnya, terdapat batasan dalam kajian ini telah dibincangkan dengan cadangan telah disediakan dan juga untuk penyelidikan masa depan.

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ABBREVIATIONS	MEANING
SMEs	Small and Medium Enterprise
TBS	Business size
TBSP	Buyer or supplier pressure
TC	Cost
TCM	Compatibility
TCI	CEO's innovativeness
TCT	Competition
TDV	e-Commerce adoption among retailing SMEs in Malaysia
TEC	Environmental context
TIK	CEO's information system knowledge
TIT	Information intensity
TOC	Organizational context
TOE	Technological-organizational-environmental
TPA	Perceived relative advantages
TTC	Technological Context
TTS	Technology support from vendors

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CHAPTER 1

INTRODUCTION

1.1 Background

Evolution of Information and Communication Technology (ICT) has diversified the human life into affluent knowledge civilization. Development of ICT has also significantly accelerated the growth of the global economy and improved the life quality of the world's population. One of greatest inventions resulted from ICT is the presence of Web 2.0 which has been using as an important medium to formulate globalization in an easier manner by accessing to data and information at anywhere and everywhere.

In the global business environments, small and medium-sized enterprises (SMEs) are incrementally using information and communications technologies (ICT)-based electronic commerce (e-Commerce) to gain competitive advantages and to have access to global markets (Al-Qirim, 2003), where SMEs typically offer significant contributions to the national economy, particularly in developing countries (Kotelnikov, 2007). In other words, the presence of Web 2.0 has become another channel of distribution, where it contributes to the forming of e-Commerce for businesses, especially SMEs.

In such extent of growth and maturity in Web 2.0 and e-commerce in global, it's an interesting issue to probe on whether "Place" from 4Ps' marketing mix concept is still the crucial factor for businesses in promoting products or services in only physical geographic area or virtual geographic area. Large organizations have noticeably profited more than SMEs in both their improved sale and costs saving (Huff, 2000) by adopting e-Commerce in their business as additional revenue stream apart from conducting traditional brick-and-mortar physical store as more targeted customers from everywhere can always be reachable easily through the connection of Web 2.0.

However, Sin et al . (2015) review SMEs adoption of e-Commerce is still limited due to the reason that SMEs have different features and attributes compared with large organizations. SMEs in developing countries are slow to adopt e-Commerce technologies into their business processes (Alam and Ahsan, 2007). This slowness is due to the unfavourable social, economic, technological and political conditions that happening in many developing countries (Esselar, Miller, 2002). Hence, the aim of this study is to explore the factors of influencing e-Commerce adoption among SMEs in Malaysia in the perspective of technology-organization-environment (TOE) framework.

In another way of express, this study is focusing on the factors that would be the discriminators to the extent of adoption for e-Commerce among of SMEs in Malaysia, whether they are adopters (virtual online or integration of click-and-mortar) or non-adopters (brick-and-mortar). The factors that influence the e-Commerce adoption as consequences from the research will be the determinants for SMEs to refer as a guideline in adoption and a reference of challenges that impede the adoption process as Wong (2013) reviews Malaysia will serve as a good reference point for Southeast Asia countries for its multi-racial population, and also by having balanced market size and expansion potential.

1.2   Problem Statement

The retail landscape is evolving like never before as the way people shop is changing every day prior to the proliferation of smartphones and innovations in delivery and data (Lutz, 2015). Tesco, the world's second largest retailer after Walmart has begun penetrating into click-and-mortar by invested $250 million to the e-Commerce incubator, Rocket Internet to run its online retail store in mainly Malaysia and Thailand since 2012 (Cunningham, 2013; Lunden, 2013). In addition, Starbucks, the coffee maker chain retailer is revolutionizing via mobile payments in worldwide and attempts to begin testing on delivering its products in certain Seattle and New York (Lutz, 2015).

Evolving of new SMEs on Web 2.0 and e-Commerce platforms as result from the strategies of foreign firm in expanding business internationally by joining through partnership and strategic alliance in Malaysia has always been a hot topic in the industry lately, not excluding of mobile commerce as well. According to Lunden (2013), emerging markets like Southeast Asia with 600 million consumers who are only now really getting turned on to smartphones and shopping online are known as a key target because they are large, and fast-growing.

Top e-Commerce marketplaces in Malaysia are such as Lazada, Lelong.my, Zalora, Groupon, and 11street (Wong, 2015) where most of them are originated from foreign countries, mainly categorized as developed countries. Among these mentioned leading e-Commerce companies, Lazada whom operates its company based in 6 countries in South East Asia has surmount to be the top among the others in Malaysia by getting a ranking of eight in the top ten e-Commerce companies in Asia (Red Herring, 2015) with US$249 million funded in 2012 to $647 million in 2014 (Purnell, 2014).

A recent study has been conducted by Wong (2013) suggests that internet penetration in Malaysia, Singapore and Vietnam is growing faster than world's average. Multimedia Development Corporation (MDEC) which is a government sponsored initiative to create a hi-tech business corridor in Malaysia has held the first-

ever government-led national online sale in the world namely "#MyCyberSale" annually, with collaboration with SMEs and electronic marketplace in a short period of time since 2014.

One of the aims of the event is to generate more online shopping demands from consumers has enabled the event to achieve RM67 million total online transaction value in terms of Gross Merchandise Volume (GMV) (average business-as-usual, total online transaction value is RM13 million) from 227,000 successful transactions with over 200% increase in online traffic as per reported by 280 participating sites which consist of e-marketplaces, limited liability company (LLC) / multinational corporation (MNC), and standalone SME sites (eCommerceMILO, 2015; Mdec.my, 2015). Such evolvement denotes that there is e-Commerce market demand in Malaysia, either by the consumers or the sellers. Ismail (2013) concludes that the country will be in big potential business worth billions of Ringgit if Malaysia focuses on e-Service as study shows that e-Services is worth RM830 million in 2011 and expected to grow to RM3.68 billion in 2020.

Department of Statistics Malaysia (DOSM, 2015) has reported SMEs has stand of 97.3% over total business establishment in Malaysia in their SME Cencus 2011. However, Report of 2012 SMEs Survey (2012) indicates that 37% of businesses founded less than 3 years are found to be in e-Commerce, where only 27% from those which are founded more than 10 years have been in e-Commerce due to lack of readiness of Malaysia SMEs towards e-Commerce such as poor bandwidth, expensive cost involved and concern on e-payment security. Besides, Digital Malaysia (2014) has reported the survey findings showed that 65% of SMEs surveyed do not use the internet for e-business and 68% of them do not have a website.

All these barriers will definitely stop SMEs in Malaysia from growing with greatest opportunities especially for small businesses to derive from their ability to participate in local and international markets. If most of the SMEs have involved themselves in e-Commerce, the average GMV would be increased to boost the aims of events coordinated in parallel national programme such as Digital Malaysia to advance the country towards a developed digital economy by 2020 by creating an

ecosystem that promotes the prevalent use of Digital Technology in all aspects of the economy (Digitalmalaysia.my, 2014).

Hashim (2015) reviews that as SMEs across all sectors are aimed to be globally competitive in order to enhance wealth creation and contribute to the social well-being of a country, hence, in this study, the local sellers from retailing SMEs in Malaysia are concerned with factors influencing their extent of e-commerce adoption in order to meet the global market demand and expose to more competitive advantages which lead to increment of the country's Gross National Income (GNI), enhancement of productivity and improvement in standards of living with the TOE framework as the discriminant factors towards the adoption.

1.3   Research Questions

i.   What is the relationship between technological context and e-Commerce adoption among retailing SMEs in Malaysia?

ii.   What is the relationship between organizational context and e-Commerce adoption among retailing SMEs in Malaysia?

iii.   What is the relationship between environmental context and e-Commerce adoption among retailing SMEs in Malaysia?

iv.   What is the challenge for e-Commerce adoption by SMEs in Malaysia in terms of technology-organization-environment factors to be prevented in a successful implementation context?

1.4   Research Objective

The challenges of e-Commerce adoption for retailing SMEs in Malaysia can be investigated by identifying the relationship between TOE context and the e-

commerce adoption. The gap between practical and challenges of e-Commerce in Malaysia can be bridged in the academic research.

The objective of this project is:

i.   To identify the relationship between technological context and e-Commerce adoption among retailing SMEs in Malaysia.

ii.   To determine the relationship between organizational context and e-Commerce adoption among retailing SMEs in Malaysia.

iii. To study the relationship between environmental context and e-Commerce adoption among retailing SMEs in Malaysia.

iv.   To explore the challenges which impede the e-Commerce adoption among retailing SMEs in Malaysia.

1.5   Scope and Key Assumptions of the Study

The research will be focusing on retailing SMEs from service industry in Malaysia as group of respondents in identifying the contexts influence the e-Commerce adoption. Several key assumptions are made by the researcher in this research, where the first one is the researcher will assume all the assumption of honesty and truthful responses from respondent. Next, respondents are assumed to represent the company's views in throughout the research.

1.6   Limitation

First, cross-sectional data of this research tends to have certain constrains when it comes to explaining the direction of causality of the relationships among the variables (Ghobakhloo et al., 2011). The researcher may not be able to measure the perception of surveyed CEOs at the time of e-commerce adoption.

It's also predicted that there are difficulties to get the planned amount of responded due to perceived business confidential issues might be high among SMEs owners or managers. Besides, it's also perceived that the reliability of data collected from respondents will be one of the limitations of the study.

1.7   Significance and Contribution

The growing number of internet users has far-fetched implications on SMEs contemplating on adopting internet-based ICT to reach larger pool of potential customers across geographical borders (Tan et al., 2010) The issue that why should the TOE framework suggested by Tornatzky and Fleischer's (1990) in this research given that there are already a significant number of e-Commerce researches have adopted this framework is that there are very limited sources concerning of e-Commerce adoption by retailing SMEs in Malaysia. Moreover, most of these past studies are concentrated on certain region of SMEs in Malaysia. Hence, this research aims to provide an enhanced result as the focus group of respondent is from retailing SMEs under service industry in Malaysia.

In addition, this research is focusing on the significances of technological-organizational-environmental contexts in the e-Commerce adoption among retailing SMEs in Malaysia with the TOE framework as the discriminant factors towards the adoption as it is seemed to be necessity and is more imperative in the context of SMEs. With regard to the above-mentioned discussion and drawing on the empirical study, current or new business owners can focus on these factors so that they can assure the possibility of adoption with successful implementation and acquire benefits and surmount the challenges through the implementation of e-commerce business model.