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I have supervised and examined this report and verify that it meets the program and University's requirements for the Bachelor's Degree in Technopreneurship.

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THE CONTRIBUTING FACTORS THAT INFLUENCE THE USAGE OF ICT:
SMEs in MELAKA

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DECLARATION

"I declare that all part of this research is my original work and all references have been cited adequately as required by the University".

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ABSTRACT

The Government is putting a greater emphasis of ICT in its efforts to transform Malaysia economy from a commodity-based producing nation to become a manufacturer of industrial products and more recently knowledge-based economy. The development of the Internet has influenced the development of Information and Communication (ICT) that contributed to all the industries in all over the world. Plus, Small, medium and micro enterprises (SMEs) often model themselves on organizations that they believe to be successful or become a market leader. This research will explain the contributing factors that influence the usage of ICT in SMEs in Melaka. This research was conducted via collection by using quantitative method and analysis primary and secondary data from various sources. This research was construct were utilized based on the Al-Qirim and Rashid theory. The data were collected using questionnaire from 201 respondents in SMEs around Melaka. Hypothesis were constructed and then testing by using Pearson Correlation and Descriptive analysis. This research found that certain factors did have a positive relationship with the contributing factors that influence the usage of ICT in SMEs in Melaka.

Keyword: Information and Communication(ICT), Usage of ICT, Small, medium and micro enterprise (SMEs), Contributing Factors.

ABSTRAK

Kerajaan memberi penekanan yang lebih besar terhadap ICT dalam usahanya untuk mengubah ekonomi Malaysia membentuk negara penghasil berasaskan komoditi untuk menjadi pengeluar produk perindustrian dan ekonomi berasaskan pengetahuan baru-baru ini dari negara penghasil berasaskan komoditi. Perkembangan Internet telah mempengaruhi perkembangan Maklumat dan Komunikasi (ICT) yang menyumbang kepada semua industri di seluruh dunia. Seterusnya, perusahaan kecil, sederhana dan mikro (PKS) sering memodelkan diri pada organisasi yang mereka percaya berjaya atau menjadi pemimpin pasaran. Kajian ini akan menerangkan faktor penyumbang yang mempengaruhi penggunaan ICT di PKS di Melaka. Kajian ini dijalankan melalui kutipan dengan menggunakan kaedah kuantitatif dan analisis data primer dan sekunder dari pelbagai sumber. Selain itu, kajian ini dibina menggunakan teori Al-Qirim dan Rashid. Data ini dikumpul menggunakan soal selidik dari 201 responden dalam PKS sekitar Melaka. Beberapa hipotesis telah dihasilakan dan kemudian diuji menggunakan "Pearson Correlation" dan "Descriptive Analysis". Kajian ini mendapati terdapat beberapa faktor-faktor tertentu mempunyai hubungan positif dengan faktor-faktor penyumbang yang mempengaruhi penggunaan ICT dalam PKS di Melaka.

Kata Kunci: Maklumat dan Komunikasi (ICT), Penggunaan ICT, Kecil, sederhana dan perusahaan mikro (PKS), Menyumbang faktor.

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LIST OFABBREVIATIONS

SME	Small, Medium and Micro Enterprise
ICT	Information and Communication Technology
IMP3	Third Industrial Master Plan
NSDC	National SME Development Council
NEM	New Economic Model
DOI	Diffusion of Innovation
ANOVA	Analysis of Variance
IV	Independent Variable
DV	Dependent Variable
%	Percent

CHAPTER 1

INTRODUCTION

1.1 Background of Research

Based on Nehmzow (1997) the Internet was introduced in 1969, it has evolved from the introduction of academics and computer to a mainstream channel of communication. Then, the Internet is progressively acknowledged for the vast array communities, meeting area, information and services of interest that it offers (Scull, Milewski, & Millen, 1999). Thus, there are many changes occurs when the growing of Internet develop in the business world. The progress of the Internet has influenced the development of Information and Communication (ICT) technology that contributed to all the industries in all over the world.

Small, medium and micro enterprises (SMEs) believe that to become a market leader, they often model themselves on organizations. It is relevant to the use of Internet in this era. Then, without fully understanding the implications and attempted to emulate leading organizations, SMEs does not use the Internet (Kassaye, 1999). Plus, according to Julien and Raymond (1994) indirectly, the lack of financial resources, human resources and technology also prevents SMEs from adopting ICT rather than the large organization. The large organization is very flexible, advanced and approachable to environmental changes.

The ICT refers to technologies that provide access to information through telecommunications. Benkinsale and Ram (2006) defined that ICT as any technology used to support gathering, distribution, information, processing and use. Moreover, ICT can be viewed as all form of technologies and product for a wide range. For example, hardware, software, information and telecommunications management devices, techniques and application. The ICT are used to create, produce, analyse, process, package, distribute, retrieve, store and transmit or receive information electronically in the organization.

ICT can help the SME to improve their competitiveness in the business area. Plus, it is the most important tool that provides the opportunity for SME. In this era of development, adoption of ICT are extremely important for SME. According to Ramayah and Koay (2002), SMEs play an important role which is especially in the manufacturing sectors, in the country's economic development. According to Fong (2002), in the manufacturing sector it is about 30% of the total workforce and more than 80% in SMEs in Malaysia are from the manufacturing sector.

Moreover, ICTs is one of the tools that allow knowledge and information exchange. Not only that, it also allow the work execution by integrating employees, information and documents. Thus, individual can share and distributes their experience in the organization. Plus, it is also allowing the involvement of partners and users in certain rural places. According to Adamides & Karacapilidis (2006), this emphasize the instrumental role of ICT as an enabler of the information or virtual teams. Thus, to ignore the new ICT, it seems to be impossible for all the firms. It is because it can lessen the time required to communicate and create the information (Nonaka & Nishiguchi, 2001).
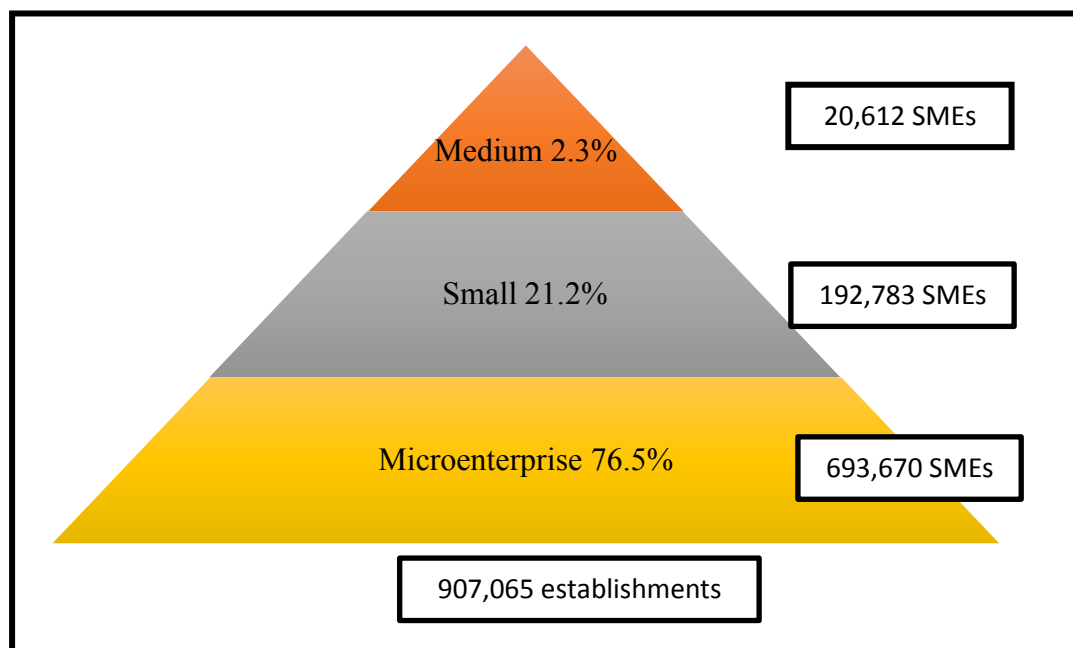
Figure 1.1 SMEs by Size

(Source: SME Corp Malaysia, 2016)

Figure 1.1 shows the SMEs by Size in Malaysia. The total SMEs establishments in Malaysia are 907,065 which is divided into 3 types of size. As for microenterprise is 76.5% which is 693,670 SMEs, small 21.1% which is 192,783 SMEs and medium 2.3% which is 20,612. In Malaysia, the business that establishments as a SMEs are 98.5% from 97.3%. It is contributed from 36.6% to the country's GDP, 65.3% to employment and 18.6% to exports.

Then, Table 1.1 shows the list of SMEs in Malaysia by state. Selangor is the highest number of SMEs which is 179,271. Then, from WP Kuala Lumpur which is 133,703 and Johor for 98,190 number of SMEs. According to Saleh et al, (2006), the central parts of the coutry are majority from the manufacturing companies in Malaysia. Then, lowest number of SMEs is WP Putrajaya which is only 1,236 of SMEs. As for this research, the researcher has been focused on Melaka SMEs which is the number of SMEs is 31,361 from the 907,065.

Table 1.1 SMEs in Malaysia by State

(Source: Economic Census 2016, Department of Statistics Malaysia, DOSM)

State	Percentage (%)	SMEs
Johor	10.8	98,190
Melaka	3.5	31,361
Negeri Sembilan	3.6	32,721
WP Putrajaya	0.1	1,236
WP Kuala Lumpur	14.7	133,703
Selangor	19.8	179,271
Perak	8.3	75,140
Kedah	5.4	48,894
Pulau Pinang	7.4	66,921
Perlis	0.8	6,808
Kelantan	5.1	46,618
Terengganu	3.2	29,324
Pahang	4.1	37,573
WP Labuan	0.3	2,567
Sabah	6.2	55,702
Sarawak	6.7	61,036
Total	**100**	**907,065**

In Table 1.2 shows the distribution of SMEs in the manufacturing sectors in 2000. In the manufacturing sector, it has been classified into 15 types of sectors. In years 2000, the highest number of SMEs are from textiles and apparel has which is 3,319. Secondly, it is from food and beverages which is 2,749, followed by metal and metal products 2,709. For the wood and wood products which is 2,582. Then, for palm oil and palm oil products has the lowest number of SMEs which is 155 and followed by leather which is 65 number of SMEs.

Table 1.2 Distribution of SMEs in the Manufacturing Sector (by sector) in 2000

(Source: SMIDEC,2004)

Sector	Number of Establishments	SMEs	Percentage of SMEs (%)
Textiles & Apparel	3,419	3,319	18.2
Food & Beverages	2,949	2,749	15.2
Metal & Metal Products	2,918	2,709	14.8
Wood & Wood Products	2,776	2,582	14.1
Paper, Printing, Publishing	1,288	1,195	6.5
Machinery & Engineering	1,249	1,135	6.2
Plastics Products	1,121	988	5.4
Electrical & Electronics	907	543	3.0
Non-Metallic Mineral Products	893	803	4.4
Other (Jewellery)	733	666	3.6
Petro-Chemical & Chemical	712	526	2.9
Transport Equipment	507	433	2.4
Rubber & Rubber Products	482	366	2.0
Palm Oil & Palm Oil Products	434	155	0.8
Leather	67	65	0.4
Total	**20,455**	**18,271**	**100.0**

Table 1.3 Distributions of SMEs by Sector in 2016

(Source: SME Corp Malaysia, 2016)

Sector	SMEs	Percentage of SMEs (%)
Services	809,126	89.2
Manufacturing	47,698	5.3
Construction	39,158	4.3
Agriculture	10,218	1.1
Mining & Quarrying	865	0.1

Based on Table 1.3 it shows the distribution of SMEs by sector in 2016. The latest distribution of SMEs has been classified into five types of sectors. It is services, manufacturing, construction, agriculture and mining and quarrying. From the table, it shows that the number of SME in services sectors are 809,126 which is 89.2%. So, majority SMEs are involved in services sectors which services sector.

Then, followed by manufacturing sectors which the numbers of SMEs 46,698. Manufacturing sectors is a physical and chemical transformation of components or materials into a new product. For the construction, the number of SMEs is 39,158 which is 4.3% and followed by agriculture 10,218 which is 1.1% and mining and quarrying 865 which is 0.1%.

1.2   Problem Statement

Malaysia is developing countries which have a slow adoption of ICT. It is very critical towards the performances and productivity of the organization for the SMEs in Malaysia. The slow adoption of ICT among SMEs had been a growing concern for the ICT development. According to Tan (2012), Malaysia has a slow adoption of technology by SMEs. The SMEs prevents to use the ICT because of the lack of understanding on the need to adopt such as to overcome existing performance gaps or exploit new opportunities (Zmud, 1984). It is because of the lack of understanding on how to use and implement the ICT application. Thus, it will prevent the accomplishment of the strategic goals of effectiveness, innovation and efficiency. Meanwhile, the used of Internet in ICT, allows the small firm to have the opportunity to compete with the large organization on an equal term.
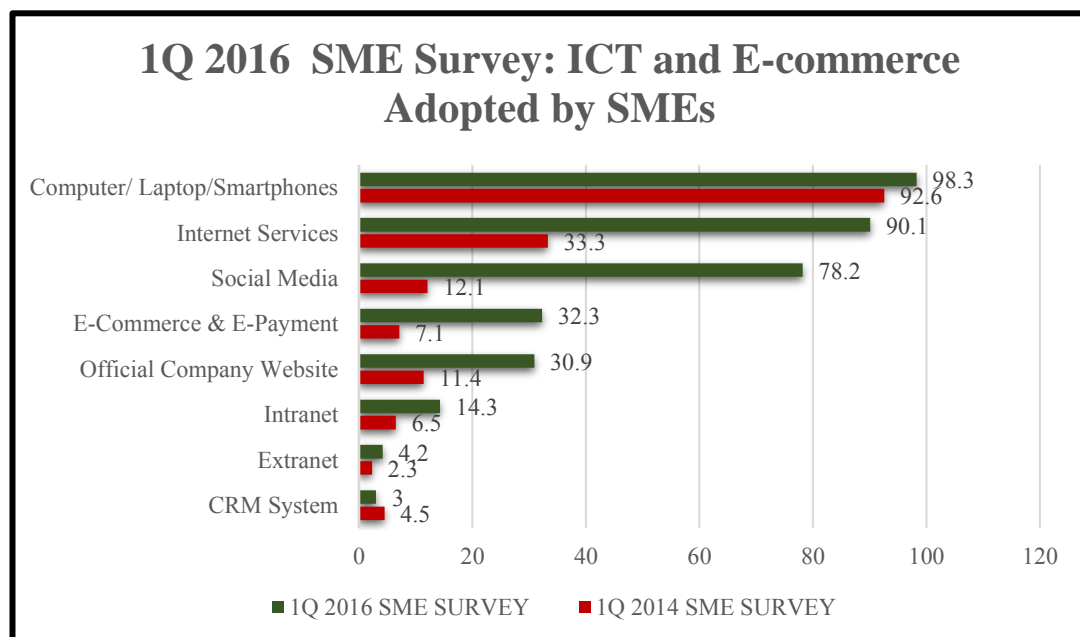

Figure 1.2: 1Q 2016 SME Survey: ICT and E-commerce Adopted by SMEs.

(Source: SME Corp. Malaysia, 2017)

In figure 1.2 shows the recent statistics in the adoption of ICT among SMEs becomes increase, mainly popular the last two years from 2014 to 2016. In the First Quarter 2016 (1Q 2016) survey has been conducted by SME Corp. Malaysia which covered 2,176 SMEs. The findings showed that the devices namely by the computer, laptop and smartphones used by respondents did not change much from 92.6% recorded in the 1Q 2014 to 98.3% in the IQ 2016. Then, for the Internet, it has increased significantly to 90.1% rather than previous 1Q 2014 which is 33.3%. Plus, the organization that promote and market their goods and services on social media also increased from 12.1% to 78.2% in 1Q 2016. This survey also revealed that about 10.8% of the respondents were first-time users of ICT tools.

As ICT is very important to SMEs in the economy, Malaysia government is committed to support and encourage the developments of SMEs to guarantee SMEs sustainability and competitiveness. There have the needs to identify the contributing factors that influence the usage of ICT in SMEs as it is the useful information and guidance to SMEs in Malaysia. There are many initiatives that government introduce in developing the SMEs in Malaysia.

Through this study, it will give SMEs in Malaysia a good understanding of what are the contributing factors that influence the usage of ICT in SMEs which give a good benefit for their business to accomplishments of the strategic goals for efficiency, effectiveness and innovation to help the owners, regulatory bodies and ICT providers of its continuous and potential development. Then, to make this research more completed, the researcher is conducting the study on the level of ICT usage in SMEs. Therefore, there is a need to understand the contributing factors that influence the usage of ICT in SMEs and identify the level of ICT usage in the SMEs organization. In making a decision on whether or not to invest in ICT usage in the organization, the issue of whether what is the contributing factors that influence the usage of ICT in SMEs were always being asked.

1.3   Purpose of Study

The main purpose of this study is to identify the contributing factors that influence the usage of ICT in SMEs in Melaka. Then, this study would identify the level of ICT usage among micro, small and medium categories of SMEs in Melaka from every sector. The empirical study from this research determined the relationship between the contributing factors towards the usage of ICT in SMEs in Melaka. Plus, this research determined the level of ICT usage among SMEs in Melaka.

1.4   Research Questions

As for this research, the researcher needs to identify the research questions to solve the problem. The research question should be not too broad or too narrow as it is based on the preliminary research. So, based on the research problem, three research questions are formulated as follows:

  i.   What are the contributing factors that influence the usage of ICT in SMEs in Melaka?
 ii.   What is the most influential factor of the ICT usage?
iii.   What is the level of ICT usage in SME?