

## **CHAPTER 1: INTRODUCTION**

### **1.1 OVERVIEW**

This chapter commences by presenting the background of the study and an overview on e-commerce scenario and SMEs in Malaysia. The chapter also includes the significance of the study, research objectives, and research questions

#### **1.1.1 E-commerce**

Electronic commerce or e-commerce has not only contributed to the shape of global economy, but has led to many of the innovations in business practices, and helped to transform the impact of businesses globally.

The term e-commerce has been defined in many ways in past studies. For example, a basic definition of e-commerce by Schneider and Perry (2000) is conducting business activities using electronic data transmission via the Internet. Another definition of e-commerce is the process of buying, selling, or exchanging products, services and information using the Internet (Turban et al, 2002).

In this study, the term e-commerce is used in the Business-to-Customers (B2C) context, and is defined as the process of buying and selling products or services using electronic data transmission via the Internet or Worldwide Web (www).

Regardless of how e-commerce is defined, its technologies can be as simple as e-mail services and online advertising, or as complex as applications such as online payment and electronic fund transfer among businesses (Kardaras and Papathanassiou, 2000). E-commerce applications also include the use of many different types of online facilities to do business: order registration, online advertising, electronic billing system, electronic marketing, online delivery, and customer service reports.

Generally, the use of e-commerce improves an organisation's performance, specifically in terms of growth (Raymond, Bergeron, and Blili, 2005), financial gain (Johnston, Wade, and McClean, 2007), and competitive advantage (Teo, 2007). E-commerce also further expands the organisation's market, enables new business model and embraces globalisation (UNCTAD, 2003).

### **1.1.2 Small-to-Medium sized Entreprises (SMEs)**

SMEs represent the largest proportion of established businesses in most countries. Therefore, the contributions from SMEs towards the country's growth in terms of economic, employment as well as gross domestic product (GDP) is

significant. Undeniably, information and communication technology (ICT) is among the potential means that can facilitate their business operations.

It is obvious that large companies are more dominant and more pervasive than SMEs as far as e-commerce technologies are concerned (Daniel and Grimshaw, 2002). However, the benefits of e-commerce are not only for large organizations. This is because e-commerce offers huge opportunities and benefits to improve business performance, regardless of the organizational size.

The extent of realized benefits was inconsistent across sectors, regions and sizes (Johnston and Wright, 2004). However, e-commerce fits SMEs better because of their less complicated structures that make them more easily to adapt to any changes.

SMEs are increasingly realising the potential benefits of e-commerce (Amit and Zott 2001). According to Grandon and Pearson (2004), e-commerce can help SMEs to “level the playing field” with big business, provide location and time independence, and ease communication.

Moreover, SMEs may use e-commerce technologies in a variety of ways. These include to communicate with customers and suppliers, collect market research data, promote goods and services, provide detailed information about products

and services, support online ordering of goods and services, and offer after sales support and assistance (Doherty and Ellis-Chadwick 2003).

Furthermore, many past researches also highlighted that SMEs can take advantage of e-commerce technologies in expanding their business (MacGregor et al. 2002). Thus, the use of e-commerce technologies enables SMEs to improve their efficiency and competitive advantage in the marketplace.

### **1.1.3 SME Definition**

The definition of SMEs varies across different countries and studies, but has been found to be defined usually based on employment, assets, or a combination of the two.

For the purposes of this paper, SMEs are defined according to Small and Medium Enterprise Corporation Malaysia (SME Corp Malaysia), an agency under Ministry of International Trade and Industry (MITI) that acts as the central point of reference for information and advisory services for all SMEs in Malaysia.

Malaysia has adopted a common definition of SMEs to facilitate identification of SMEs in the various sectors and subsectors. This has facilitated the Government to formulate effective development policies, support programmes as well as provision of technical and financial assistance.

Malaysian SMEs are categorised into two broad sectors: manufacturing and services. An enterprise is considered an SME in each of the respective sectors based on the annual sales turnover or number of full-time employees.

Table 1.1: Definition of SMEs in Malaysia

Sector	Micro-enterprise	Small enterprise	Medium enterprise
Manufacturing, manufacturing-related services and agro-based industries	Sales turnover of less than RM250,000 or fewer than five fulltime employees.	Sales turnover between RM250,000 and RM10 million or between five and 50 full-time employees.	Sales turnover between RM10 million and RM25 million or between 51 and 150 fulltime employees.
Services, primary agriculture and information and communication Technology (ICT)	Sales turnover of less than RM200,000 or fewer than five fulltime employees.	Sales turnover between RM200,000 and RM1 million or between five and 19 full-time employees.	Sales turnover between RM1 million and RM5 million or between 20 and 50 full-time employees.

Source: Small and Medium Enterprise Corporation Malaysia (SME Corp)

As described in the Table 1.1, SMEs in the manufacturing, manufacturing related services, and agro-based industries are enterprises with full time employees not exceeding 150 or with annual sales turnover not exceeding RM25 million. On the other hand, SMEs in the services, primary agriculture, as well as information and communication technology (ICT) sectors are enterprises with full-time employees not exceeding 50 or with annual sales turnover not exceeding RM5 million.

According to DOSM (Department of Statistics, Malaysia, 2006), SMEs in Malaysia account for 99.2 percent or 518,996 of total establishments. These establishments are divided into three key economic sectors, namely manufacturing, services and agriculture. Most of the SMEs predominate in the services sector, accounting for 86.5 percent of the total establishments. Their presence in the manufacturing and agriculture sectors are only 7.3 percent and 6.2 percent respectively.

#### **1.1.4 Contribution of SMEs in Malaysia**

Even if we discount the sheer quantity of SMEs in Malaysia, we still cannot ignore their collective contribution to the Malaysian economy. Collectively, SMEs are so numerous and productive that their total economic output exceeds those of large companies, when terms of gross domestic product (GDP). The percentage of the economy's total output and service (GDP) that come from SMEs proves their relative economic importance.

According to Aris (2007), the role of SMEs in the Malaysian economy is demonstrated by their contribution to output and value added. In 2003, the amount of output and value added contributed by SMES are RM405 million and RM154 million respectively (see Table 1.2).

Table 1.2: Output and value added by sector

Sector	Output			Value added		
	Total (RM billion)	SMEs (RM billion)	Percentage	Total (RM billion)	SMEs (RM billion)	Percentage
Manufacturing	549.1	191.6	34.9 %	128.1	47.5	37.1%
Services	361.7	204.9	56.7 %	187.6	102.7	54.7%
Agriculture	20.6	8.7	42.1 %	9.1	3.6	39.7%
Total	931.4	405.2	43.5	324.7	153.7	47.3

Source: Department of Statistics, Malaysia (DOSM, 2003)

In terms of share contribution, SMEs accounted for 43.5 percent of total output and 47.3 percent of total value added. SMEs in the services sector contributed the largest share, 56.7 percent and 54.7 percent respectively. SMEs in the manufacturing sector saw a 34.9 percent contribution in output and 37.1 percent in value added.

More than three quarters of SMEs (411,849) are micro establishments and they are predominantly present in the services and agriculture sectors, accounting for 80.4 percent and 93.3 percent respectively. Small establishments constitute 18.4 percent and medium establishments, 2.2 percent. This pattern was also prevalent in the manufacturing sector. However, the proportion of micro establishments was lower, 55.3 percent, while small establishments accounted 39.5 percent.

In terms of geographic locations, SMEs were mainly concentrated in the Central Region (Federal Territory Kuala Lumpur and Selangor), accounting for 37.1 percent. Johor was next with 10.4 percent, followed by Perak with 7.3 percent while Perlis registered only 1.1 percent of the total establishments. The rest of the states accounted for less than 44.1 percent.

Hence, The SME sector in Malaysia constitutes the majority of business activity in Malaysia, and their contribution to Malaysian economy is indeed very significant.

#### **1.1.5 E-commerce Scenario in Malaysia**

In recent years, Malaysia has experienced rapid growth in the information technology and communication sectors. Based on the data provided by the Malaysian Communications and Multimedia Commissions (MCMC), the percentage of Malaysian Internet users rapidly grew from 15% to 62.8% from 2000 until 2008. Electronic commerce is also expected to enjoy rapid growth in Malaysia due to the rising Internet penetration.

### **1.2 SIGNIFICANCE OF STUDY**

Although researchers have been increasingly exploring and predicting e-commerce adoption among SMEs in other developing countries (e.g. Nasco et

al. 2008; Al-Qirim 2007; Kendall et al. 2001; Sathye and Beal 2001), there is still a limited understanding of the behaviour of Malaysian SMEs towards e-commerce technologies adoption. Furthermore, different factors were found to affect adoption in different countries (Kartiwi and Mcgregor, 2007).

In the context of Malaysia, Sulaiman (2000) and Khatibi et al. (2003) have attempted to explore the barriers that might hinder the adoption of e-commerce among Malaysia businesses. However, both papers were merely exploratory in nature without any in-depth study regarding the hindering factors of e-commerce adoption. Besides, they examined e-commerce adoption among firms in general without focusing on the SMEs. Another study, Paynter and Lim (2001), examined the drivers and impediments to e-commerce in Malaysia, but focused only on Malaysian Internet users. On the other hand, Mansor and Abidin (2010) only investigated the e-commerce application among SMEs, not the factors that affect their adoptions.

Most of the studies also focuses on certain geographic locations, such as Kelantan (Manson and Abidin, 2010), Johor and Melaka (Tan and Eze (2008) and the northern region (Liew, V. K., 2004).

Therefore, it is of immediate importance that e-commerce adoption by Malaysian SMEs is empirically investigated by focusing on the determinants from the context of the organisation, technology and environment.

### **1.3 RESEARCH OBJECTIVES AND QUESTIONS**

This study intends to empirically investigate the determinants of e-commerce adoption among Malaysian SMEs from a broad sense of focus. Below are the objectives of this study:

- 1) Investigate the factors that affect Malaysian SMEs in adopting e-commerce.
- 2) Explore how each factor from technological context, organizational context and environmental context affects Malaysian SMEs in adopting e-commerce.
- 3) Determine which factors are significant in leading to a successful e-commerce adoption among Malaysian SMEs

Based on the objectives outlined above, the research questions were developed. This study attempts to answer the following research questions:

- 1) What are the factors that affect SMEs in Malaysia in adopting e-commerce?
- 2) How does each factor from technological context, organizational context and environmental context affect Malaysian SMEs in adopting e-commerce?
- 3) What are the significant factors that can lead to a successful e-commerce adoption among Malaysian SMEs?