

Chapter 5

Determinants of E-Commerce Adoption Among Small and Medium-Sized Enterprises in Malaysia

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ABSTRACT

With a major proportion of research on Electronic Commerce (EC) undertaken on large corporations, and focused primarily on developed countries, little is known about the determinants of EC in Small and Medium-sized Enterprises (SMEs) of developing nations. This chapter explores the extent of EC use by SMEs, and provides some empirical evidence of how internal factors of firm and owner are influencing EC adoption among smaller businesses in Malaysia. The methodology and results of this study may be applicable to other developing countries. Findings confirm the low level of participation in EC by SMEs. The age of enterprise, as well as the owner's gender and education were found to be significant in determining the level of EC adoption. Though some of the results contradict those of previous studies, they may have a greater implication for government authorities in drawing up guidelines, approaches, and formulating more effective frameworks to promote EC use among SMEs in developing countries.

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INTRODUCTION

The Small and Medium-sized Enterprise (SME) sector plays an important role in the economic development of many countries (Curran & Blackburn, 2001; Simpson & Docherty, 2004). As a major source of income and provider of employment, SMEs account for more than 95 per cent of businesses, generate two thirds of private sector employment (Organisation for Economic Cooperation and Development [OECD], 2005), and contribute between 30 per cent and 70 per cent of the Gross Domestic Product (GDP) of most nations (OECD, 1997). In the United Kingdom, for example, 99.9 per cent of the private sector enterprises are SMEs and they account for 59 per cent of employment in the country (Department for Business Enterprise & Regulatory Reform [BERR], 2007). Similarly, in Malaysia, SMEs form a significant part of the economy, and have evolved to become key suppliers and service providers over the years (United Nations Development Programme [UNDP], Malaysia, 2007). More than 90 per cent of enterprises in Malaysia are SMEs which generate employment for more than half of the work force in the country and contribute 32 per cent to the GDP (Department of Statistics Malaysia, 2005).

With the evolution and widespread use of the Internet, the capability and competitiveness of SMEs have greatly increased. Electronic commerce (EC), in particular, allows buying and selling of products, services, information via computer networks including the Internet (Turban, King, Lee, & Viehland, 2004). Through the use of web sites, email services and web browsers, EC facilitates communication and enables access to large amounts of information. With increased connectivity and flexibility, EC offers new exciting opportunities for firms to improve their business performance (see for example, Tetteh & Burn, 2001). In fact, SMEs are increasingly finding a web presence to be important in building brand/product awareness, and enhancing company im-

age (Gribbins & King, 2004). Others concur that EC brings numerous advantages to firms in terms of lower costs, reduced remittance time, and improved customer service (Wen, Chen, & Hwang, 2001). Through a virtual interactive environment that promotes communication between trading parties, EC also provides SMEs with an effective mechanism for competing with larger organizations worldwide. Hoi, Shim, and Yin (2003) observed that SMEs perceive EC to be beneficial in improving their international exposure and responsiveness. With increased diffusion, EC is expected to remove barriers of culture and national boundaries, leading towards a more unified and globalised economy (Sagi, 2004).

In Malaysia, the SMEs are aware of the importance of Information and Communication Technologies (ICTs) in improving their productivity and business performance (Lim, 2006). However, a review of the literature shows that SMEs in Malaysia have been slow in the uptake of ICTs and EC in particular (Alam, Ahmad, Abdullah, & Ishak, 2007; Alam & Ahsan, 2007; Bolongkikit, Obit, Asing, & Tanakinjal, 2006; Hashim, 2006). In a survey of 12,000 SMEs in the country, only 16 per cent of the firms indicated that they had a web presence, compared to 80 per cent of similar enterprises in Europe and North America (Patrick, cited in UNDP, Malaysia, 2007). Research shows that the slow development of ICTs among Malaysian SMEs may be explained by factors related to technical expertise (Lim, 2006), and security issues (Tan, Chong, Lin, & Eze, 2009). Smaller businesses generally perceive the implementation of ICTs to be risky and technically challenging. Liew (2002) in a study on SMEs concurs that the implementation and maintenance of EC are restricted due to hindrances related to organization, infrastructure and technology.

With limited resources to draw upon, owner-managers of SMEs face a very different world from that of their counterparts in larger enterprises (Beaver, 2007). Due to the dominance of a single owner-manager and factors such as

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