

## Chapter 5.23

# Electronic Commerce Adoption Barriers in Small to Medium-Sized Enterprises (SMEs) in Developed and Developing Countries: A Cross-Country Comparison

**Mitra Kartiwi**

*University of Wollongong, Australia*

**Robert C. MacGregor**

*University of Wollongong, Australia*

### **ABSTRACT**

Today, electronic commerce (e-commerce) has been utilised as a rapid vehicle to transform the world into an information society. In the business environment, e-commerce has made considerable inroads not only into large organisations but also the small and medium-sized enterprises (SMEs). However, SMEs are not adopting e-commerce with same speed as their larger counterparts. This slow growth has been attributed to various adoption barriers, which have been well documented in numerous research studies. While several recent

studies have begun examining the relationship between the perceptions of adoption barriers in developed economies, the relationship between the perceptions of these barriers has not been fully examined in developing economies. This paper examines the correlation and underlying factors of barriers to e-commerce (as perceived by SME owner/managers) in a developing economy (Indonesia). It then compares these with SME owner/manager perceptions from a developed economy (Sweden). The study showed that there are differences in the groupings and priorities of barriers to e-commerce between the two locations. Most

importantly, however, was the finding that while Swedish respondents were more concerned with technical issues, the Indonesian respondents were more concerned with organisational barriers.

## INTRODUCTION

The importance of the SME sector as the cornerstone of most economies is widely recognised (Abdullah & Bakar, 2000; Hall, 2002; National Office of Information Economy, 2002). This is not only borne out by the number of SMEs (almost 90% of the total number of businesses across the world), but also by their significant role in creating employment opportunities (Hall, 2002). The role of SMEs is further highlighted in studies by Abdullah and Bakar (2000) and Urata (2000) that suggest that SMEs are vital to the emergence of healthy private sectors, especially in poorer countries. However, research has indicated that the SME contribution to the gross domestic product (GDP) of many nations has fallen over the past few years (Abernethy, 2002). While the reasons for this decrease are diverse, SMEs are attempting to reverse the trend by turning to global markets. This development has been enabled by the advent of e-commerce technology. E-commerce, defined as “the buying and selling of information, products, and services via computer networks” (Kalakota & Whinston, 1997, p. 22) is radically changing the dynamics of the business environment and the way in which people and organizations are conducting business with one another. For SMEs, e-commerce has the potential to become a source of competitive advantage. E-commerce is a cost effective way of accessing customers globally and competing on par with large businesses. Indeed, Lee (2001) suggests that e-commerce has altered the outlook of businesses from one focused on lean manufacturing (termed as economics of scarcity) to a focus on information which he terms as economics of abundance. SMEs have started to capitalise on these benefits initially by connecting

to the Internet. Indeed, according to the American City Business Journals (Internet Economy Indicators, 2003), SMEs using the Internet have grown 46% faster than their counterparts who do not use the Internet (Bajaj & Nag, 1999; Khiang & Chye, 2002; Scupola, 2003).

Despite the exponential growth of e-commerce (the U.S. Census Bureau reports that e-commerce retail sales reached \$11.9 billion in the U.S. during the first quarter of 2003), it is the larger businesses that have reaped the benefits (Riquelme, 2002). In contrast, the rate of e-commerce adoption in the regional SME sector has remained relatively low (Magnusson, 2001; Poon & Swatman, 1998; Van Akkeren & Cavaye, 1999). According to the National Research Council (2000), only 25% of SMEs had a Web site in mid-1999. Of those that did have a Web site, the revenue they generated via business-to-customer (B2C) e-commerce was negligible (*Wall Street Journal*, August 17, 1999 cited in National Research Council, 2000; Ruth, 2000). This slow growth of e-commerce adoption in SMEs has been attributed to various adoption barriers that are faced by small business owners/managers. These barriers have been well documented in numerous research studies. However, the relationship between these barriers has not been fully examined, particularly in developing countries. A number of studies (Kaynak, Tatoglu, & Kula, 2005; Stockdale & Standing, 2004; Taylor & Murphy, 2004) have suggested that much of the literature concerned with e-commerce use (or lack of use) in SMEs has been undertaken in developed countries (particularly, but not exclusively the U.S., Europe, and Scandinavia). They argue that the wholesale application of these findings to developing economies is not justifiable because the driving forces for SMEs to adopt e-commerce, as well as the barriers preventing adoption differ widely from location to location. The aim of this paper is threefold: (1) to analyse the correlation between various e-commerce adoption barriers in order to identify any underlying factors; (2) to examine whether there are any significant dif-

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