

# Inherent E-Commerce Barriers for SMEs

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## INTRODUCTION

Electronic commerce (e-commerce) is the fastest growing industry the world over and it impacts business, international trade, and national economies. The number of nations who are offering e-commerce solutions is increasing every year. Despite the downturn in the Internet economy represented by the crash of many “dot-com” companies, several forecasts continue to predict huge potential in global e-commerce over the next several years (Deschoolmeester & Van, 2000). For example, global business-to-business (B2B) commerce over the Internet is expected to reach between U.S. \$2 trillion to about U.S. \$10 trillion by 2004 ([http://www.emarketer.com/ereports/ecommerce\\_b2b/welcome.html](http://www.emarketer.com/ereports/ecommerce_b2b/welcome.html)). Large businesses have found e-commerce a tool for exponential economic growth but small businesses are still far from the e-commerce revolution because of inherent problems in generally acquiring the basic e-commerce infrastructure and expertise. Governments of many nations are providing support and incentives for small and medium enterprises (SMEs) to use e-commerce platforms to expand globally to sell their products or trade online with other businesses, but the e-adoption campaign for SMEs to invest in online services has not been encouraging (A Study Report on Thailand, 2001; Sharma & Wickramasinghe, 2004; Sharma, Wickramasinghe, & Gupta, 2004). E-commerce certainly has been streamlining supply-chain activities, speeding inventory turnover, and reducing cycle times, yet SMEs don't appear to be in the forefront of the e-commerce movement. SMEs have modernized and automated the way they do business and have been exploiting Internet technology to expand their reach and communication with their partners, suppliers, and customers, however, their use of such ICT tools is limited to mostly administrative matters (Beal, 2000; Ihlström & Nilsson, 2000). Many of the medium scale enterprises are using the Internet and ICT only for office automation such as word-processing, spreadsheets, accounting, and payroll (Poon & Swatman, 1997). SMEs in Asia have yet to take the actual plunge into e-commerce, are still skeptical of the e-commerce hype, and are reluctant to embrace much of the required technology (Haynes, Becherer, & Helms, 1998; Mehrtens, Cragg, & Mills, 2001). E-commerce is still relatively a new playing field for SMEs (Chau & Turner, 2002; Sugawara & Liyanage, 1999).

## BACKGROUND

There are few studies conducted for examining e-commerce adoption by SMEs in Asia. (APEC, 1999; Beal, 2000; Sharma & Wickramasinghe, 2004). Hasio presents a qualitative study of the barriers faced by SMEs to introduce B2B e-commerce in Singapore. The investigation employs an interpretative approach that draws on the theory of “technological frames”. The results of Hasio's study highlights four key factors that explain the adoption difficulties: lack of familiarity (with technology), risk aversion, lack of trust, and incongruent cultural practice. Similar to Hasio, Dhawan, and associates (Dhawan et al., 2000) examining the problems associated with building B2B e-marketplaces for SMEs. Both these studies were more focused on EDI aspects and B2B commerce rather than business-to-customers (B2C). However, all these studies conducted on this subject enhanced our understanding of the adoption difficulties involved in e-commerce.

As e-commerce is becoming the way to trade, it is the large corporations that are exploiting their finances and technical expertise to jump into this electronic abyss whereas, SMEs are finding too many obstacles to participate in e-commerce (Ihlström & Nilsson, 2000; Tan & Ouyand, 2003; Walczuch, Van, & Lundgren, 2000). Following a review of the current literature, this article describes the key factors that are hindering SMEs' participation in e-commerce and the obstacles to SMEs for e-adoption. Although this study is limited to Asia, many of the findings do contribute significantly to the factors hindering all SMEs' e-adoption efforts.

## OBSTACLES OR BARRIERS TO THE ADOPTION OF E-COMMERCE

Asian governments are actively encouraging the diffusion of e-commerce in SMEs as a way to improve their competitiveness and access to new markets. Many initiatives have been taken such as: raising awareness, establishing development centers, creating business access points, and providing education and training programs. Despite all these, they continue to encounter numerous obstacles to adoption of e-commerce (APEC, 1999; Sharma,

Wickramasinghe, & Gupta, 2004; Sharma & Wickramasinghe, 2004; Thong, 2001; Thong, Yap, & Raman, 1996).

### **Lack of Awareness**

The primary obstacle to adoption of e-commerce among SMEs is lack of awareness of e-commerce, and the availability and access to telecom infrastructure at a reasonable cost (APEC, 1999). The SMEs are not aware of the current developments or the role they could play in this new marketplace. Personnel involved in SMEs find e-commerce literature too technical and complicated. Unless, the governments or other agencies simplify technical information for them, SMEs can not adopt e-commerce concepts and begin implementation. English as a common language of an e-commerce is a big barrier in many Asian countries since the people involved conduct their business using the local language. The lack of awareness is closely linked to the fact that SMEs in Asia are usually slower in adopting new technologies given the often high investments necessary. Many of the Asian SMEs are also less risk taking and not ready to experiment (Sharma & Wickramasinghe, 2004).

### **Poor Customers, Suppliers, and Business Partners' Base**

Another obstacle experienced by Asian SMEs is the lack of a critical mass among customers, suppliers, and business partners. The lack of a critical mass of these stakeholders is due to either ignorance or fear of a lack of security and privacy when using electronic means. The e-commerce infrastructure is very poor in Asian countries and online shopping is not yet very popular among masses. Due to low use of e-commerce, there are few customers and suppliers using e-commerce and this acts as a discouraging factor for SMEs to join the e-commerce revolution (APEC, 1999). Until sufficient numbers of their main local customers or suppliers participate in online commerce activities, there is little incentive for individual SMEs to become engaged in e-commerce themselves. In Asian countries, SMEs cited several factors contributing to low levels of customer e-commerce use including: language barriers and low levels of English fluency, lack of familiarity with e-commerce technologies, a cultural preference for more traditional trade practices involving face-to-face contact between buyer and seller, and continued preference for the use of cash in transactions (APEC, 1999; A Study Report on Thailand, 2001; Beal, 2000; Turpin, 2000; Sharma et al., 2004; Sharma & Wickramasinghe, 2004).

### **Trust and Confidence**

Lack of trust and confidence in various aspects of the electronic marketplace was identified as another main obstacle to the growth of the e-commerce market in general, and for SME engagement in e-commerce in particular. SMEs fear doing business with international marketplaces, due to cultural backgrounds, and a fear of being deceived, due to lack of knowledge of new technologies. The security issue is perceived as very important across the Asian region, and the majority of SMEs have the fear of electronics. Security may not be a serious problem but due to the low level of technology diffusion and awareness among SMEs, it is still a psychological barrier for SMEs (APEC, 1999; Beal, 2000; Turpin, 2000). Many of these SMEs owners do not have technical backgrounds, and they are not convinced that the technology standards such as encryption etc. exist to protect them. Due to perceived security fears, SMEs are not willing to use electronic payment systems. Credit cards and e-checks are still a distant dream for many of them. Security, legal, and liability issues were often identified as very important concerns of participating SMEs in Asia (APEC, 1999; Sharma et al., 2004; Sharma & Wickramasinghe, 2004).

### **Lack of Legal and Regulatory Framework**

The lack of a comprehensive and acceptable legal and regulatory framework is an issue for Asian SMEs. Many of the Asian countries still do not have laws for electronic contracts, invoices, and other types of documentation in place. Few countries have taken the lead but the majority of others are still in formulating laws. E-commerce demands several legal and liability issues to be addressed before it is widely accepted by SMEs and others in the Asia. Conducting business through electronic networks raises numerous legal questions that include: the legal status and enforceability of electronic contracts; the legal jurisdiction of international e-commerce transactions; intellectual property rights and copyright protection for digital content; the privacy of personal data; and the validity of electronic "evidence" in legal disputes (APEC, 1999). Unless these issues are addressed, Asian SMEs may not choose e-commerce as a medium for their business. Asian SMEs also have concerns about international legal protection such as global patent applicability, global taxation, and consumer protection (APEC, 1999; A Study Report on Thailand, 2001; Beal, 2000; Turpin 2000).

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