

## Chapter XVI

# E–Business Adoption in SMEs: Some Preliminary Findings from Electronic Components Industry

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### ABSTRACT

The lack of anticipated engagement in e-business by Small and Medium sized Enterprises (SMEs) is a rising concern to the UK government and service providers alike. This article is based on the e-adoption model to examine the current practice of e-business technology adoption in SMEs and the driving forces for and against the adoption. Through interviews with 40 owner managers in the electronic components industry, the article reveals that most of the small firms in this industry are at the lower level of the “e-adoption ladder”—pre-dominantly using the Internet and e-mail. SMEs in this industry have not yet widely engaged in online transactions. The current level of adoption is driven by both internal and external factors, including operational benefits, industry common

practice, and peer pressure. External forces such as a lack of push from suppliers and customers and a lack of strategic vision of using advanced e-business technology for competitive advantages have determinant effects on the level and scale of e-adoption in SME sector. The e-adoption ladder model is modified by incorporating the influential factors identified within this study. The findings have many implications for researchers, service providers, and policy makers.

### INTRODUCTION

The Internet is described as the SME’s gateway to global business and markets (Liikanen, 2001), and e-business technologies are expected to allow SMEs to gain capabilities that were once the

preserve of their larger competitors. These new technologies offer the potential for creating entirely new ways of working, giving rise to a new breed of SMEs whose management and employees use a more flexible and more effective way of working. E-business is expected to become a key driver in the way companies across the globe conduct business. However, whether these new technologies are put to efficient use by SMEs and what driving forces that push SMEs up the adoption ladder remains a question that attracts considerable attention of researchers and policy makers (Fillis, Johannson, & Wagner, 2004; Parish, Kibblewhite, Woodley, & Richardson, 2002; Ramsey, Ibbotson, Bell, & Gary, 2003).

Studying e-business adoption in the SMEs sector is of particular importance. This is because SMEs are regarded as significantly important on a local, national, or even global basis and have a history of continual growth. SMEs play an important part in the UK economy with 3.7 million firms employing over 12 million people, which generates 55% of UK employment. These firms contribute approximately 51% to the UK GDP with an annual turnover of over one trillion pounds sterling (Dixon, Thompson, & McAllister, 2002). However, studying e-business adoption in SMEs is a challenge since SMEs are not miniature versions of large firms; they are unique in their own right (Barnett & Mackness, 1983). This includes a small management team, strong owner influence, multi-functional management, limited ability to obtain financing, and a lack of control over the business environment. In addition, SMEs rely on an environment in which structures and processes must remain simple, flexible, and adaptable (Carmichael, Turgoose, Older Gary, Todd, 2000). Firm and managerial factors are merged due to the high locus of control exerted by the key decision makers (Boone, De Brabander, & Hellemans, 2000). These unique characteristics affect Internet technologies adoption in SMEs. Research suggests that there is a correlation between the size of a business and

the level of IT adoption (McDonagh & Prothero, 2000). The typical microenterprise exhibits much lower rates of e-business activities than larger firms when excluding smaller high-technology firms (Smyth & Ibbotson 2001). Large organizations are inclined to adopt the click and mortar model by integrating offline and online business or spin-off online operations. In contrast, small and medium-sized firms lack a general pattern on adoption of Internet technologies (Chavez, Leiter, & Kiely, 2000). The extent of adopting Internet technologies may vary widely among small and medium sized enterprises (Kula & Tatoglu, 2003). This creates great demands and challenges to construct a clear picture of the level of e-business adoption in the SME sector.

Research into the level of adoption of e-business technologies in the SMEs sector reported very contradictory results, which exacerbates the current situation of confusion. For example, Smyth and Ibbotson (2001) reported from a multiple industry survey that an extremely low adoption rate was found in Ireland and Northern Ireland. Daniel, Wilson, and Myers (2002) found 50% of e-business adoption in UK SMEs. The statistics of the European Observatory for SMEs show that most SMEs are not using the Internet and the World Wide Web (WWW) for commercial transactions despite the allure of e-business benefits (Ramsey et al. 2003). A multi-industry survey conducted in the North and South of Ireland by Ramsey et al. (2003) revealed that only 33% of the firms had a Web site, 10% of the firms used Web sites to generate online orders, and none of the Web sites could facilitate online payments. However, in a study of the adoption of e-commerce in the UK electronics industry (Parish et al., 2002), a relative high level of adoption of Internet technologies has been reported (i.e., 85% the firm (larger than 100 employees) buy online, and 43% of the firms sell online). The disparity of those empirical findings reflects a lack of consensus and the complexities in gaining a holistic view of e-business adoption in the SME sector.

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