Chapter 4

Information Systems Innovations Adoption and Diffusion Among SMEs:
Current Status and Future Prospects

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ABSTRACT

The attention of software vendors has moved recently to Small to Medium-sized Enterprises (SMEs) offering them a vast range of Information Systems' (IS) innovations including enterprise systems (ES), which were formerly adopted by large firms only. Although the number of SMEs adopting new IS innovations has increased over time, strong empirical evidence is still lacking. This paper aims to fill this gap by reporting the findings of a survey on SMEs located in the Northwest of England. The survey results reveal that even more complex IS innovations are increasingly adopted by SMEs. Also, nearly half of the surveyed SMEs are willing to adopt ES in the next three years. These findings suggest that there is a considerable opportunity and a need for further research in the adoption and diffusion of new IS innovations among SMEs.

INTRODUCTION

Small and Medium-sized Enterprises (or SMEs) are considered as major economic players and a potent source of national, regional and local economic growth (Taylor & Murphy, 2004). As described by Diaz and his colleagues (2005), SMEs have been the main creator of new jobs, while on average, large companies have downsized and reduced employment. According to the European Commission (EC, 2003), SME have less than 250 employees. Of 20 million companies in Europe, only 40,000 have more than 249 employees. This implies that 99.8% of all European enterprises are SME. Moreover, European SMEs generate 56.2% of the private sector turnover (Diaz et al. 2005).

The improvement of competitiveness of SMEs is a critical goal for a number of institutions and governments. Microcredits, knowledge transfer, training and venture capital programmes are some of the traditional policies and aids developed to assist SMEs. From the field of management, one of the main debates has been the importance of information systems' (IS) innovations for the survival of SMEs. However, most small firms still under-utilise the potential value of IS innovations by only restricting them to administrative tasks (Brock, 2000). The 'SMB Global Model' study by AMI-Partners (2004) predicts that SMEs' spending worldwide on IT and telecommunications will exceed US$ 1.1 trillion during 2008. Furthermore, it is predicted that the global level of SMEs' spending on CRM software packages alone will double to reach US$ 2 billion by 2008 (Datamonitor, 2004). Although the number of SMEs adopting new IS innovations has increased over time, strong empirical evidence is still lacking (Ordanini, 2006). This study contributes to the understanding of SMEs' adoption and diffusion of IS innovation.

IS INNOVATIONS ADOPTION AND DIFFUSION RESEARCH

Researching IS innovations' adoption and diffusion in SMEs is a challenge not only because smaller firms are more dynamic, innovative and responsive to market changes than their large counterparts (Nolan & O'Donnell, 1991), but also because SMEs are not miniature versions of large firms, they are unique in their own right (Barnett & Mackness, 1983; Westhead & Story, 1996). SMEs differ from large companies in important ways affecting their information-seeking practices (Buonanno et al., 2005; Lang & Calantone, 1997). Thus, the adoption and diffusion of IS innovations in SMEs cannot be a miniaturised version of the larger organisations. Earlier studies suggest that most SMEs avoid the adoption of sophisticated software and applications (Chen & Bernard, 1993; Cragg & King, 1993). More recent studies found that SMEs are more reluctant to spend on technology (Dennis, 2000; Walczuch, Van Braven, & Lundgren, 2000) because most small firms lack the adequate capital to undertake technical investment (Raymond, 2001). SMEs are also found to lack technical expertise (Barry & Milner, 2002) and their decisions are usually made by the owner/manager (Bunker & MacGregor, 2000).

Many theoretical models have been used to examine SMEs' adoption and diffusion of IS innovations: Technology Acceptance Model (TAM) (e.g. Grandon & Pearson, 2004); Theory of Planned Behaviour (TPB) (e.g. Harrison, Mykytyn Jr, & Riemenschneider, 1997); Combined TAM and TPB (e.g. Riemenschneider, Harrison, & Mykytyn Jr, 2003); TAM2 (e.g. Venkatesh, 2000); Innovation Diffusion Theory (e.g. Premkumar, 2003); Resource-Based View (e.g. Mehrtens, Cragg, & Mills, 2001); Stage Theory (e.g. Poon & Swatman, 1999); and Unified Theory of Acceptance and Use of Technology (UTAUT) (e.g. Anderson & Schwager, 2003). From reviewing these models (Ramdani & Kawalek, 2007b), the adoption and diffusion of IS innovations' research

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