

Chapter XXXII

Exploring SMEs' Adoption of Broadband in the Northwest of England

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ABSTRACT

This chapter explores the factors impacting small to medium-sized enterprises' (SMEs) adoption of broadband. It argues that information and communication technologies (ICTs) are highly differentiated technologies for which there is not necessarily a single adoption model. While most large European companies are connected to broadband, SMEs' connectivity is lagging behind. The question of why one SME adopts broadband while the other does not is still understudied. Therefore, the purpose of this chapter is to fill this gap by investigating the technological, organizational, and environmental factors impacting SMEs' adoption of broadband. This chapter starts by highlighting the importance of ICT innovations adoption in general and broadband in particular. Based on the ICT innovations adoption literature, SMEs' broadband adoption framework will be developed and empirically validated involving nine SMEs' key decision makers in the northwest of England. Finally, implications for researchers, practitioners, ICTs' vendors, and policy makers will be discussed.

INTRODUCTION

New information and communication technologies (ICTs) such as broadband provide small to medium-size enterprises (SMEs) with opportunities that are largely unexploited. Although SMEs form a substantial constituent of the global economy and ICT innovations adoption is nowadays economically and strategically feasible for the smallest or-

ganizations (Raymond, 1989; Thong & Yap, 1995), limited research has addressed the specifics of ICT innovations adoption, implementation, and use in the small business context (Brock, 2000; Shiels McIvor, & O'Reilly, 2003).

The benefits of broadband adoption are well documented; they include capturing new customers and markets (Quayle, 2002; Raymond, 2001; Ritchie & Brindley, 2000; Vescovi, 2000), im-

proved marketing techniques (Sparkes & Thomas, 2001), and improved relations with business partners (Poon & Swatman, 1999). The question of why one SME adopts broadband while another does not is still understudied. This chapter intends to contribute to the understanding of broadband adoption among SMEs by achieving the following objectives:

- To highlight the importance of SMEs' adoption of ICT innovations in general and broadband in particular
- To review the ICT innovations adoption literature
- To develop SMEs' broadband adoption framework and empirically validate it
- To discuss implications for researchers, practitioners, ICTs' vendors, and policy makers

BACKGROUND: SMES & ICT ADOPTION

SMEs are considered as major economic players and a potent source of national, regional, and local economic growth (Taylor & Murphy, 2004). Without a better understanding of the complex processes and differentiating factors that affect ICT innovations adoption level, the drive of ICT adoption and development will not successfully contribute to SMEs' competitiveness (Martin & Matlay, 2001). There were 4.3 million small businesses enterprises in the UK at the start of 2005 representing (99%) of all business in the UK and together they accounted for more than half of the employment (58.7%) and turnover (51.1%) in the UK. (SBS, 2006).

The European Commission (EC) defines small businesses based on the number of employees, annual turnover, annual balance sheet total, and level of autonomy (EC, 2003). Most definitions of SMEs emanate from the 1971 Bolton Committee Report, which defines a small firm as independent, owner managed, and with small market share (Simpson & Docherty, 2004). The DTI (2004) categorizes SMEs into: micro firms with fewer than 10 employees, small firms with 10-49 employees, and medium

sized firms with 50-249 employees. Story (1994) argues that the number of employees is considered to be an appropriate measure of SMEs because of the differences in organizational structures that occur with size. Using number of employees as a measure, the EC and DTI definitions are compatible and therefore will be used in this study.

New ICT provide SMEs with opportunities that are largely unexploited (Brock, 2000; Corso, Martini, Paolucci, & Pellegrini, 2001). It is hard nowadays to imagine SMEs operating without some use of ICT innovations. However, SMEs differ in the level of ICTs' usage (Blackburn & McClure, 1998). Southern and Tilley (2000) identifies three categories of small firms with different attitude to ICT:

- *SMEs with low-end ICT use*—where there is not a good fit between ICT and the owner-manager's concept of the business
- *Medium-level ICT users*—with more expertise, separate IT and communications systems, open access to company data (network and files servers), IT in production, e-mail, and a plan for and delegation of the management and routine upgrading of IT
- *High-end ICT users*—leading edge and innovative IT use, ICT integrated in the business process, a full digital information and communication system, ICT as a formal responsibility with a dedicated manager (Taylor & Murphy, 2004)

ICT is a broad term used to refer to any technologies from a simple acquisition of hardware to the full implementation of an enterprise resource planning (ERP) system. This study focuses on broadband, which is a term commonly used to describe Internet connections that are "always on" and that provide a speed which is significantly faster than dial-up connections, supporting the delivery of innovative content, applications, and services (EU, 2004). Broadband is usually defined on the basis of transmission capacity: faster than the primary rate International Telecommunication Union (ISDN) speeds in excess of 200 kb/s (Federal Communications Commission), and a service with

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