Chapter 7

Australian SMEs and E-Commerce Adoption: Newer Perspectives

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ABSTRACT

This chapter presents the results of a study on factors affecting adoption of e-commerce in small and medium size enterprises in Australia. The Tornatsky and Fleischer (1990) model is used in the investigation therefore the main group of factors taken into consideration are environmental, organizational and technological. Top managers employed in five companies located in the area of Brisbane, Queensland have been interviewed. The results are partially in line with similar studies on e-commerce adoption in SMEs. However many differences are also found. For example this study found that the external environment has an influence mainly through customers’ requirements and pressure and availability of IT services, contrary to other studies that found that government and public administration have a big role. The organizational and technological contexts have also much relevance and include factors such as employees and CEO attitude.

INTRODUCTION

Small and medium size enterprises (SMEs) are an important sector of the economy and in some countries constitute more than 90% of businesses (OECD, 2002). The management issues, problems and opportunities faced by SMEs are very different from those faced by large corporations, therefore the need to focus specifically on this segment. In this paper the Australian Bureau of Statistics (ABS) definition of SMEs is adopted according to which a small and medium size business is any business employing less than 200 employees (www.abs.gov.au). By drawing on Zwass (1996) e-commerce is here defined as the sharing of business information, maintaining business relationships, and conducting business transactions by means of telecommunications networks. The literature on SMEs’ e-commerce adoption is extensive and addresses different aspects among which technological characteristics such as
barriers and benefits, predictors and determinants (e.g. Saffu et al., 2008; Chitura et al. 2008; Sabherwal et al. 2006; Jeyaraj et al., 2006; Walczuch et al., 2000).

The purpose of this chapter is to present the results of a study on adoption and implementation of e-commerce in Australian SMEs. There have been a number of studies investigating factors affecting SMEs’ adoption of e-commerce both in Australia (e.g. Marshall et al., 2000; Akkeren and Cavaye 2000; Poon, 2000) and other countries (e.g. Scupola, 2003; Chen and McQueen, 2008). However, as the rate of e-commerce adoption and diffusion among SMEs increases and consequently SMEs become more acquainted and sophisticated in incorporating e-commerce in their operations it can be expected that the drivers and inhibitors of e-commerce adoption and implementation change as a result. Therefore there is the need of new studies to monitor such evolution and status quo. In addition this study distinguishes itself from previous literature on e-commerce adoption in Australia because by drawing on Tornatzky and Fleischer (1990) it mainly focuses on the organizational, technological and environmental factors.

The basic research question investigated in this paper is: "What are the factors affecting the adoption and implementation of e-commerce in small and medium size enterprises in Australia?" The study can be relevant both to academics and practicing managers interested in understanding the problems faced by SMEs in adopting e-commerce as a major business channel.

The chapter is structured as follows. The first section is the introduction and presents the motivation for the study and the research question. The second section presents a literature review of small business IT adoption frameworks with a focus on the model used in this paper and positions the study within the overall SME research landscape. The third section describes the research design and the data collection process, while a description of the companies is given in the fourth section. The following section is the main thrust of the chapter and presents the analysis and discussion of the study results. The last two sections present future research directions and conclusions.

Factors Affecting IT Adoption: A Literature Review and a Research Model

A fundamental approach to studying the adoption of new technologies is the diffusion of innovations (Rogers, 1995). According to Rogers (1983:21), adoption is a decision to make full use of an innovation as the best course of action whereas rejection is a decision not to adopt an available innovation. In this study, adoption is defined as the decision to make use of e-commerce to conduct business or transaction with trading partners. There are two levels of adoption. Initially, innovation must be purchased, adopted and acquired by an organization. Subsequently, it must be accepted by the ultimate users in that organization also called implementation (Chong and Bauer, 2000; Rogers, 1995). Many studies have investigated explanatory variables for inter-organizational systems (IOS), IS and IT adoption both in small and large organizations (e.g. Saffu et al., 2008; Sabherwal et al. 2006; Jeyaraj et al., 2006; Kurnia & Johnston 2000; Chau & Tam, 1997). For example, in one well known study, Iacovou et al. (1995) identified three major factors responsible for EDI adoption: 1) organizational readiness, operationalized as financial and technological resources of the firm; 2) external pressures divided into competitive pressure and imposition by trading partners and 3) perceived benefits of the technology. By investigating seven case studies of small businesses, Iacovou concluded that “a large number of small organizations tend to lack the needed high organizational readiness and perceived benefits that are required for integrated, high impact systems” and that a major reason for small companies to adopt EDI is the external pressure by trading partners. Thong (1999) developed and tested a model including CEO, IS, organizational