Chapter VIII

An Analysis of Factors that Influence the Ability of SMEs to Derive Benefit in Four Phases of Electronic Commerce: 34 Australian Case Studies

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ABSTRACT

This paper builds on research presented by the authors at IRMA 2001. Previous research by Chau and Turner (2001b) adapted the work of Venkatraman (1994) to explore the relationship between the degree of SME organisational transformation and potential benefits derived from e-commerce. The qualitative data explored reveals various factors that influence SME’s
ability to derive benefit from conducting Web-based e-commerce. A preliminary review suggests that these factors can be distinguished into internal factors (organisational and technological) and external factors (nature of supply chain, level of service provided by third party organisations, industry influence, and government assistance). This paper discusses these factors and their implications for modelling e-business organisational transformation.

**INTRODUCTION**

Inhibitors to the adoption of e-commerce (EC) by small to medium-sized enterprises (SMEs) have been well researched (Freel, 2000; Lawrence and Keen, 1997; MacGregor, Waugh, and Bunker, 1996; Poon, Swatman, and Vitale, 1996; Poon and Swatman, 1998). More recently it has emerged that even where e-commerce technology adoption occurs, this has often not translated directly into the active utilisation and conduct of e-commerce (NOIE, 2000a; Wong and Turner, 2001). Amongst those SMEs who do actively utilise e-commerce, previous research has highlighted that the level and extent of Web-based e-commerce can be usefully categorised into four phases (Chau, 2001). These phases emerge as transitional states in the use of e-commerce that SMEs may establish themselves at directly or migrate to from other phases.

Preliminary case study analysis suggests that the potential to derive benefit from e-commerce activities increases where SMEs have been able to re-align business processes and structures (Chau and Turner, 2001). The ability of SMEs to re-align business processes depends upon a number of factors. To date however, there has been little detailed investigation into the factors that impact on SMEs’ ability to derive e-commerce benefits within any particular phase of e-commerce activity.

This research paper identifies and explores the range of factors that impact on SMEs’ potential to derive benefit from e-commerce activities in each of the four phases. The paper develops a framework for exploring these factors that emerge as either internal or external to the SMEs analysed. Preliminary analysis highlights the utility of the framework for revealing the distinct characteristics of these factors within each phase.

An interpretative epistemology was deployed as the most logical and appropriate approach to capture information about the beliefs, actions, and experiences of SME participants in relation to their use of e-commerce. Data collection consisted of a series of interviews conducted with senior management. Using a semi-structured interview question frame, managers were asked a series of
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