Chapter 6.4

The Contingent Role of Innovation between IT Management Sophistication and Strategic Alignment

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ABSTRACT

To provide deeper insight into IT managerial adaptive processes considered in strategic alignment mechanisms, we propose, using contingency theory, that the degree to which IT management sophistication contributes to a company's success is contingent upon its adaptive innovated behavior. Results suggested that Taiwanese companies could succeed when IT management sophistication is appropriate for a certain innovation. Our research model was generic for foreign companies' strategic behavior because, based on contingency theory, these companies make dynamic adaptations toward their particular environment for a competitive IT-based innovation. Implications of results are discussed. [Article copies are available for purchase from InfoSci-on-Demand.com]

INTRODUCTION

What certain sophisticated level of information technology (IT) management practices is more critical to the effectiveness of a particular innovation? Such a question has widespread practical, as well as theoretical, ramifications because a company's success may be realized only when appropriate IT is used to underlie a certain innovated business orientation (Kamal, 2006; Lacity, Willcocks, & Feeny, 1996).

IT management sophistication means evolution of a company's IT management practices such as information systems (IS) expenditure, IT use experience, IS function, and so forth (Gupta, Karimi, & Somers, 1997). It reflects the extent to which IS strategy can be formally pursued to support overall company goals, indicating that IS strategy should be progressively aligned with other

strategies as the company grows over time toward maturity (Slaughter, Levine, Ramesh, Pries-Heje, et al., 2006). This implies that a company's success can be measured by a greater strategic alignment (Hirschheim & Sabherwal, 2001; Kearns & Lederer, 2004; Luftman, 2003; Luftman & Brier, 1999). Strategic alignment means achievement of cohesive goals across IT and other organizational functions (Luftman, 2000).

Various components of "strategic alignment" have been examined in different areas of IS research. For example, in IT governance, a control mechanism concerning decision-making, alignment, and communication is used to ensure the successful use of IT (Weill & Ross, 2004, 2005). In operations management, sustainability depends on internal consistency between companies' strategies and their manufacturing operations (Krajewski & Ritzman, 2005). In the role of senior executives in IS planning, top management support facilitates the effectiveness of IT assimilation (Liang, Saraf, Hu, & Xue, 2007). In the strategic IS planning process, analytical and administrative approaches are used to align strategic management to IT management through a set of capabilities (e.g., governance, technical, and personnel) (Henderson, Venkatraman, & Oldach, 1996; Venkatraman, Henderson, & Oldach, 1993). More recently, the impact of strategic alignment between IS function, IT infrastructure, organizational infrastructure, and business planning processes on company performance has been widely studied (Sabherwal & Chan, 2001; Sabherwal, Hirschheim, & Goles, 2003; Tallon, Kraemer, & Gurbaxani, 2000). In the effective use of IT, contextual factors (e.g., environmental uncertainty, information intensity, etc.) have significant impact on business dependence on IT (Kearns & Lederer, 2004). More recently, situational contingencies (e.g., employee training, technical complexity, task interdependence, etc.) influence successful IS implementation (Sharma & Yetton, 2007).

Since these and other studies have described various contexts of alignment between IS and business strategies, our focus is more macro; that is, we used contingency theory to conceptualize the research model (Figure 1). Contingency theory emphasizes the importance of situational influences on the management of organizations (Govindarajan, 1988; Zeithaml, Varadarajan, & Zeithmal, 1988). In our model, IT management sophistication and innovation play a critical role of contingency (i.e., antecedent and moderator) that influences the posterior: strategic alignment.

In strategic perspective, moreover, we consider variables in our model not only as content but also process-oriented factors because the environment is dynamic. Sabherwal and Chan (2001) noted that "strategy content" concerns aspects of business strategy aligned with aspects of IS strategy while "strategy process" is focused on how a company develops and implements its management practices.

Henderson and Venkatraman (1993) proposed a "logic strategic alignment framework for analyzing strategic choices in enough detail to ensure successful implementation of business, technology, and infrastructure direction" (p. 205). Although this model emphasizes the process of strategic alignment, Tallon (2003) regarded it as a range of managerial and administrative actions that transform the company by aligning the domain of choices contained within the content of strategic alignment. Hence, our model is both process and content oriented.

We treat "IT management sophistication" as process oriented, since it relates to the changing (adaptive) process of IT managerial activities that evolve toward formalization as the company grows over time (Gupta et al., 1997) and "strategic alignment" as content oriented, which refers to the aspect of IS plan to business plan and vice versa (Kearns, 1997).

By "innovation," we refer to a company's adaptation to the external environment, which can be considered as a typical business strategic typology

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