Chapter 15

IT Maturity and Strategic Alignment:
Moderating Effect of Strategic Organizational Contexts

Leelien Ken Huang
Feng Chia University, Taiwan

ABSTRACT

Strategic alignment of IT/business remains one of the top IT management issues. We proposed, using contingency theory, that the extent to which IT maturity can be evolved to support overall business goals is moderated by strategic organizational contexts. Results suggested that companies could succeed when IT maturity is appropriate for a certain strategic organizational context. Our research model was generic for foreign companies’ strategic behaviour because, based on contingency theory, these companies make dynamic adaptations toward their particular external environment for a competitive strategy. Implications of results are discussed.

BACKGROUND

Appropriate information technology (IT) maturity is critically needed for organizations when seeking effective adaptation to a dynamic market. This adaptation can be treated as a type of strategic organizational context in terms of Miles and Snow’s (1978) typology.

IT maturity means evolution of IT management practices (e.g., IT expenditure, IT use experience, IT functionality, etc.) (Gupta, Karimi, & Somers, 1997), reflecting the extent to which IT strategy can be formally pursued to support business goals. This indicates that IT strategy should progressively align with business strategy as the company grows over time (Slaughter, Levine, Ramesh, Pries-Heje, & Baskerville, 2006). Greater strategic alignment can be the possible source of company’s success (Hirschheim & Sabherwal,
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: e.g., IT governance (Weill & Ross, 2004, 2005), operations management (Krajewski & Ritzman, 2005), the role of senior executives (Liang, Saraf, Hu, & Xue, 2007), IT functionality, IT infrastructure, organizational structure, and business planning processes (Sabherwal & Chan, 2001; Sabherwal, Hirschheim, & Goles, 2003; Tallon, Kraemer, & Gurbaxani, 2000), contextual factors such as environmental uncertainty and information intensity (Kearns & Lederer, 2004), situational contingencies such as employee training, technical complexity, and task interdependence (Sharma & Yetton, 2007), business manager’s IT competence (Bassellier, Benbasat, & Reich, 2003), and leveraging influence on IT investment (Byrd, Lewis, & Bryan, 2006).

Since these and other studies have described various contexts of alignment between IT and business strategies, we argue that IT research should adopt contingency perspective because in practices, conclusions cannot be possibly generalized and thus are often contingent (or moderated) upon situations (Chan & Reich, 2007; Palmer & Markus, 2000). We used contingency theory to conceptualise the research. Contingency theory emphasizes the importance of situational influences on the management of organizations (Govindarajan, 1988; Zeithaml, Varadarajan, & Zeithmal, 1988). In our research, IT maturity and strategic organizational context play a critical role of contingency (i.e., antecedent and moderator) that influences strategic alignment (i.e., posterior).

Our research objective is to clarify whether a certain formal level of IT management practices is more important for a certain strategic organizational context than for others to achieve a strategic alignment. Grounded on contingency theory, we proposed the IT maturity framework of company adaptation. This framework addresses the issue: “how IT resources can be strategically used to be an adaptive company.” Taiwan is an ideal location to examine the issue. Taiwanese companies have been facing increased foreign competition (e.g., China, ASEAN) after Taiwan’s admission to the WTO in 2001, thereby making it increasingly necessary for them to focus on IT-based innovations in products and market development (Chen, 2003).

This paper extends the cumulative tradition of IT research to emphasize the importance of the contingent role of strategic organizational context that changes the relationship between IT maturity and strategic alignment directed towards a company’s success. By showing how Taiwanese companies adjust the strategic positions of IT in accordance with their strategic organizational context, foreign companies are expected to refer to this adaptation in their IT management practices improvement.

First, we define the contingency theory for the basis of strategic alignment, IT maturity, and strategic organizational context. Next, we provide our research framework; followed by a description of the factors used to measure strategic alignment, IT maturity, and strategic organizational context; the method used to collect the data; and a discussion of the results obtained in our study. Finally, we conclude with implications for both researchers and practitioners.

CONCEPT DEVELOPMENT

Contingency theory (CT) argues that “effectiveness” depends on appropriate fit of contextual factors (Pfeffer & Salancik, 2003). Several contingency antecedents (e.g., environmental [dynamism], technical [connectivity] or organizational [business knowledge of IT manager, business strategy, information intensity, size, structure, user satisfaction]) have been included in the analysis of a “fit” relationship (Benlian & Hess, 2007; Ducan, 1995; Earl, 1993; Jiang, 2003; Kearns, 2000, 2005; Kearns & Lederer, 2004; Wang, 2001). Using these