Chapter XX
Researching IT Capabilities and Resources:
An Integrative Theory of Dynamic Capabilities and Institutional Commitments

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ABSTRACT

Recent studies have highlighted the utility of the resource-based view (RBV) in understanding the development and application of IT capabilities and resources in organisations. Nevertheless, IS research has inadvertently carried over several fundamental problems and weaknesses with the RBV from reference disciplines. This chapter proposes an integrative theory, model and research propositions that draws on dynamic capabilities theory from the resource-based view of the firm in institutional economics, and commitment theory in institutional sociology, to explain and understand the process by which IT capabilities and resources are developed and applied in organizations. In so doing, this study addresses the paucity of theory on the role of IT capabilities in building and leveraging firm-specific IT resources. The chapter also addresses the aforementioned problems and weaknesses to build a logically consistent and falsifiable theory, with relatively superior explanatory power, for application in both variance and process-based research, whether positivist or interpretivist in orientation.

INTRODUCTION

Researchers in the IS field have noted that the process by which IT capabilities are created, developed and applied is not well understood. Take, for example, this comment by Bharadwaj (2000): "The underlying mechanisms through which… superior IT-capability leads to improved firm performance…is by no means clear. Additional research is needed to identify the full chain of variables connecting IT-capability to firm performance" (p. 188). Wade and Hulland (2004) contributed to the cumulative body of research in this area by identifying and categorizing capabilities and resources under the headings of (a) managing external relationships, (b) managing internal relationships, and (c) responsiveness to market, (d) IS planning and change management, (e) the processes by which IS are developed, and (f) managing IS operations effectively. However as with Bharadwaj, Wade and Hulland (2004) report that "[considerations] such as how resources are developed, how they are integrated within the firm, and how they are released have been under-explored in the literature" (p.131). While several recent papers have contributed to such an understanding, Bharadwaj's call for a refined theoretical model remains unanswered.

Thus, there is a clear requirement for a rigorous theoretical model and framework to help guide research in the task of understanding the application of business and IT Capabilities in organisations. This chapter proposes a theoretical model that integrates and builds upon prior cumulative research in the IS and reference disciplines to propose specific concepts and identify the relationships between them. Several propositions are derived from the resultant theoretical model by drawing on extant research. Following calls made by Williamson (1998) and Knudsen (1994), the integrative theoretical model proposed herein incorporates a set of descriptive microanalytic attributes that describe a firm's capabilities and resources—core, enabling, and supplemental—while also including an intentionality view or behavioural theory that helps explain how organisational knowledge translates into capabilities. The recent work of Teece and Pisano (1998) on the dynamic capabilities of firms is integrated with Philip Selznick's (1949, 1957) concept of commitment to provide the model with its principal theoretical and analytic components. The inclusion of Selznick's theoretical perspective provides this study with normative and cognitive foci to augment the predominantly regulative focus of dynamic capabilities theory in institutional economics and the strategic management literatures. The rationale behind this integrative approach to theory building originates in Scott's (1995) contention that the various schools of institutional thought do not give equal weight to regulative (rules and laws institutionalised as protocols and routines in support of governance and power systems), normative (values and expectations that govern conformity and performance of duty within institutional regimes and authority systems), and cultural-cognitive (symbols, categories and typifications which shape performance programs, scripts and institutional identity) forces that shape institutions and organizations. Rather, researchers have generally stressed one or other as central, while implicitly incorporating others (DiMaggio and Powell, 1983). This study therefore adopts a holistic perspective and adopts a view of organizations and institutions that operates at several levels of analysis and which incorporates a theory of human behaviour that recognizes the primacy of social rationality. This chapter's theoretical model will therefore help researchers examine the development and application of business and IT capabilities and resources as key components of core or distinctive competence in knowledge-intensive firms.

The remainder of this chapter is structured as follows: Section 2 explores the origins of the resource-based view (RBV), which is regulative in its focus; Section 3 builds on this by presenting what is regarded as the most promising view in resource-based theory—the dynamic capabili-