

Chapter II

Toward an Organizational View of E-Collaboration

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ABSTRACT

This chapter develops an organizational view of the roles and impacts of e-collaboration. Drawing on the dynamic capabilities perspective, e-collaboration is conceptualized as a change-oriented capability that enables a firm to identify, integrate, and apply its knowledge assets to meet competitive demands. Therefore, e-collaboration potentially has three organizational roles—coordination, learning, and innovation—that are associated with either efficiency impacts or competitive impacts. Drawing on contingency theory, the main argument developed in this chapter is that firms in less dynamic business environments need e-collaboration for operational purposes, emphasizing the coordination role, whereas firms in high-velocity business environments need e-collaboration for strategic purposes, emphasizing the learning and innovation roles. An analysis of the way in which business environment characteristics interact with media characteristics serves to demonstrate the importance of strategic characteristics—in addition to media and task characteristics—in determining the organizational effectiveness of e-collaboration.

INTRODUCTION

Firms are increasingly adopting electronic communication tools to facilitate collaboration among individuals and groups, both within and beyond organizational boundaries. This trend is driven by the motivation of firms to take advantage of

the collaborative potential of such tools as discussion boards, instant messaging, and groupware for facilitating communication and coordination without the limitations of time and place. To promote theory development and to provide practical guidelines, substantial research has been conducted to identify the conditions under

which certain collaboration tools and practices are more productive than others (e.g., Daft and Lengel, 1986; Dennis and Valacich, 1999; Dennis et al., 2001; Easley et al., 2003; Majchrzak et al., 2005; McGrath, 1984; Nunamaker et al., 1991; Short et al., 1976; Zigurs and Buckland, 1998). This research tends to focus on the direct consequences of e-collaboration in group contexts. Considerably less research has been conducted on the importance of organizational conditions. Overall, it seems that e-collaboration research has underestimated the significance of the organizational and environmental context.

In this chapter, I conceptually address two research questions:

- (1) What are the differences between the roles of e-collaboration in dynamic versus static business environments?
- (2) What are the implications of role differences for the implementation of e-collaboration?

To answer these questions, I develop an organizational view of e-collaboration by conceptualizing e-collaboration as a dynamic capability. I draw upon three strategic management frameworks – the resource-based view of the firm, the knowledge-based view of the firm, and the dynamic capabilities perspective – to describe how specialized knowledge assets can be integrated through e-collaborative processes to create and sustain a competitive advantage. I then use this conceptualization as a platform for defining the organizational roles of e-collaboration and the potential impact of each role on organizational performance. The conceptualization thus suggests that different roles of e-collaboration should be emphasized in different business environments. Finally, I discuss the implications of the proposed organizational view by demonstrating the interaction between business environment characteristics and communication characteristics, whose importance has been established in the literature.

AN ORGANIZATIONAL VIEW OF E-COLLABORATION

Knowledge as a Strategic Resource

The resource-based view of the firm (Barney, 1991; Dierickx and Cool, 1989; Grant, 1991; Wernerfelt, 1984) argues that heterogeneity and immobility of firm resources can provide the basis for superior competitive performance. Firm resources that are strategically valuable, because they enable the implementation of strategies that exploit opportunities or neutralize threats in the business environment, and that are heterogeneously distributed enable firms to outperform the competition. However, such a competitive advantage cannot be sustained if competitors can acquire strategically equivalent resources to implement the same valuable strategy. Therefore, for a firm to sustain its competitive advantage, its valuable and rare resources should not be open to imitation or substitution.

The knowledge-based view of the firm (Grant, 1996; Kogut and Zander, 1996; Nonaka and Takeuchi, 1995) extends the resource-based view by defining organizational knowledge as a valuable subset of the firm's resources, capable of generating and sustaining a competitive advantage. The knowledge-based view perceives a firm as a knowledge-creating entity; it argues that the capability to create and utilize knowledge is the most valuable source of the firm's sustainable competitive advantage (Nahapiet and Ghoshal, 1998; Nonaka et al., 2000; Spender, 1996). Specialized, firm-specific knowledge resources are those that are valuable, scarce, and difficult to imitate, transfer, or substitute. By utilizing such resources in the attainment of organizational goals, a firm could gain an advantage in its markets that competitors would find difficult to overcome. Tangible resources are more susceptible to imitation and substitution because their origin lies outside the firm. Sustained competitive advantage is more likely to come from intangible

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