

Chapter 12

DESIGNING FIRMS FOR KNOWLEDGE ACQUISITION AND ABSORPTIVE CAPACITY

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Abstract: To survive, firms must acquire innovation-relevant knowledge from their environment. In spite of the importance of knowledge acquisition to the firm, the organization design field is without either an elaboration of the multiple processes through which firms acquire such knowledge or a field-research grounded set of design guidelines concerning organizational practices likely to result in timely and reliable knowledge acquisition. This chapter describes in detail six processes firms commonly use to acquire technical knowledge and, drawing on literatures in technology management, knowledge management, and human resources management, it further describes field-research based practices that enable firms to make these processes effective. The chapter content contributes to the literatures on organization design, organizational learning, and absorptive capacity.

Key words: Organization design, absorptive capacity, knowledge acquisition, learning, boundary spanning

1. INTRODUCTION

“For most firms, most of the time, their innovations are prompted or enabled by information or knowledge originating outside the firm. . . . Even though any one external source (e.g., competitor, supplier, university) is unlikely to generate a particular element of knowledge needed by a firm, there are so many such sources in the environment that the probability then *no* external source generates the knowledge before the firm does is necessarily very small. . . . Firms possess knowledge, but the amount they possess is minuscule compared with the knowledge already residing in their

industry, in adjacent industries, in the business world, and in society in general” (Huber, 2004: 131-132)

To innovate and survive, firms acquire knowledge from their environment by actuating specific processes at the firm-environment interface, i.e., at the firm’s boundary. Firms’ effectiveness in this regard depends on their including in their design certain practices that foster and facilitate these boundary-spanning, knowledge-acquiring processes.

Two perspectives dominate the literature on organizational boundaries. One focuses on where, by whom, and how well the firm’s work gets done, as in transaction cost economics (Williamson, 1975, 1996) and temporary versus standard workforce employment strategies (Baron & Kreps, 1999; Davis-Blake, Broschak, & George, 2003). The second perspective focuses on how boundaries serve as barriers to, or instruments of, the firm’s acquisition of knowledge that exists in its environment (See Oliver, 1993 for a more fine-grained taxonomy of perspectives on organizational boundaries). Empirical study of boundary spanning personnel as instruments of knowledge acquisition began in the late 1960s (e.g., Allen & Cohen, 1969) and continued into the 1980s (e.g., Brown & Schwab, 1984; Tushman & Scanlan, 1981). More recent work has focused on properties of knowledge that influence its transferability, i.e., stickiness (Szulanski, 1996; von Hippel, 1994) and similarity to current knowledge (Lane & Lubatkin, 1998), and on capabilities of the firm for capturing and using knowledge from its environment, i.e., absorptive capacity (Cohen & Levinthal, 1990; Lane, Salk, & Lyles, 2001; Mowery, Oxley, & Silverman, 1996; Zahra & George, 2002). This chapter is concerned with the second of these two perspectives. It describes field-research based practices, including the implementation and management of infrastructures, that firms can use to make more effective their acquisition of technical knowledge via boundary spanning processes.

Perhaps from the resource-based view of the firm (Barney, 1991; Peteraf, 1993), but more likely simply from straightforward observation of the actions that businesses use for acquiring and exploiting knowledge to achieve competitive advantage, has come the realization that knowledge is a critical organizational resource: “Knowledge has become the key economic resource and the dominant – and perhaps even the only – source of competitive advantage” (Drucker, 1995: 271); “Knowledge has emerged as the most strategically significant resource of the firm” (Grant, 1996: 375). Recognition of this fact contributed to the early and subsequent attention that academics gave to organization learning (Huber, 1991; Levitt & March, 1988), that consultants gave to knowledge management (Rappleye, 2000; Sarvary, 1999), and that academics have more recently given to the process of transferring knowledge via inter-firm alliances (Lam, 1997; Simonin, 1999). In spite of the importance of knowledge and knowledge acquisition