



## Linking organizational culture, structure, strategy, and organizational effectiveness: Mediating role of knowledge management

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### ABSTRACT

Practices of knowledge management are context-specific and they can influence organizational effectiveness. This study examines the possible mediating role of knowledge management in the relationship between organizational culture, structure, strategy, and organizational effectiveness. A survey was conducted of 301 organizations. The results suggest that knowledge management fully mediates the impact of organizational culture on organizational effectiveness, and partially mediates the impact of organizational structure and strategy on organizational effectiveness. The findings carry theoretical implications for knowledge management literature as they extend the scope of research on knowledge management from examining a set of independent management practices to examining a system-wide mechanism that connects internal resources and competitive advantage.

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The internal characteristics of the organization make up critical sources for success (Barney, 1991). Increasing attention has been paid to identifying what characteristics are vital to organizational success and how they exert their influence on organizational outcomes. Internal organizational context focuses on broad and relatively stable categories of organizational characteristics such as structure, culture, and power and political characteristics (Pettigrew, 1979). They constitute an environment where organizational activities take place. There has been a large volume of studies that examine how the fit between organizational context and organizational strategy explains variances in organizational performance (Daft, 1995; Robbins, 1990). What is lacking in existing literature, though, is an understanding of the intervening mechanism that explains the paths of the influence from organizational context and strategy to organizational effectiveness.

Knowledge management plays a potentially mediating role in connecting organizational context and strategy with organizational effectiveness. Successful knowledge management is believed to have the potential of enhancing an organization's competitive advantage, customer focus, employee relations and development, innovation, and

lower costs (Skyrme and Arnindon, 1997). In turn, knowledge management is context-specific, because context determines who participate and how they participate in the knowledge management process (Nonaka et al., 2000). Knowledge management could serve as one of the intervening mechanisms through which organizational context influences organizational effectiveness. However, the mediating role of knowledge management has not been adequately investigated. Exploration of its potential role as a mediating factor would provide better understanding of how to leverage it to achieve desirable organizational goals. This study sets out to do that.

The purpose of this study is to examine the possible mediating effect of knowledge management on the relationship between organizational culture, structure, strategy and organizational effectiveness. This study attempts to detect and explain one of the mechanisms through which organizational contextual and strategic factors are mobilized to achieve higher levels of organizational effectiveness.

### 1. Rationale

Knowledge management is “a systematic and integrative process of coordinating organization-wide in pursuit of major organizational goals” (Rastogi, 2000, p. 40). Scholars generally agree that knowledge management practices need to fit with organizational context in order to create a competitive edge (Davenport and Prusak, 1998).

The literature on the possible mediating role knowledge management plays reveals several important missing pieces. First, existing

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studies cover some ground of the contextual antecedents of knowledge management (Gold et al., 2001; Lee and Choi, 2003). However, these studies usually start from a micro perspective and investigate the immediate knowledge-related environment rather than the general contextual environment of the whole organization. They focus on exploring the antecedents of knowledge management rather than examining knowledge management as a mediating mechanism between general organizational context and organizational effectiveness. Specifically, both Gold et al. (2001) and Lee and Choi (2003) examine the aspects of organizational culture, structure, and technology that are directly related to knowledge management. They did not investigate the general cultural, structural, and technological characteristics of the whole organization. The restriction to only knowledge-relevant structural and contextual factors reveals the assumption that knowledge management is a set of relatively independent managerial practices rather than a central mechanism through which organizational factors are leveraged to achieve organizational goals. This assumption may have underestimated the actual influence of knowledge management. This study takes a new perspective on knowledge management in its potential capacity to transmit contextual and strategic influence onto organizational effectiveness.

Second, organizational strategy has generally been left out in knowledge management studies. In the list of antecedents of knowledge management, organizational level strategy has not been mentioned. Few studies examine how organizational strategy can influence knowledge management (Pedler et al., 1991; Senge, 1990; Watkins and Marsick, 1996), but only a simplistic relationship has been examined between organizational strategy and knowledge management. The demonstrated relationship may be biased because some potential correlates of organizational strategy and those of knowledge management have not been taken into consideration, such as organizational structural and cultural factors. It is time to construct a more complex picture of how organizational structural, cultural, and strategic characteristics exert a combined effect on knowledge management and ultimately organizational effectiveness.

Third, the connection between knowledge management and organizational level performance has not been sufficiently established. Despite beliefs in the contribution of knowledge management to organizational effectiveness, measuring knowledge management is difficult (Lee and Choi, 2003), and the relationship between knowledge management processes and organizational effectiveness has not been adequately studied (Davenport and Prusak, 1998; Shin, 2004). More studies are necessary. This study attempts to address the above-mentioned missing pieces in literature.

## 2. Theoretical background and hypotheses

The intersection of the resource-based view and the knowledge-based view of the firm lays the theoretical grounding for this study.

### 2.1. Resource-based view and knowledge-based view

The resource-based view posits that firm competitiveness comes from unique bundles of tangible and intangible assets that are valuable, rare, imperfectly imitable, and sustainable (Barney, 1991). The resources a firm possesses include management skills, organizational processes and routines, and the information and knowledge it controls (Barney, 1991). Firm resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge, and others, as controlled by a firm (Daft, 1995). Organizational structure, culture, and strategy are three key organizational assets that have been studied extensively in their association with organizational effectiveness. However, how they pass their influence onto organizational effectiveness is an understudied question.

The knowledge-based view of the firm is at the center of the resource-based view (Conner and Prahalad, 1996). The knowledge-

based view of the firm holds that the firm's capability to create and utilize knowledge is the most important source of a firm's sustainable competitive advantage (Grant, 1996; Kogut and Zander, 1992; Nonaka, 1991; Prahalad and Hamel, 1990). Nonaka (1991) observes that, in the current economy, where "the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge" (p. 96).

### 2.2. Knowledge management and organizational effectiveness

Knowledge management encompasses the managerial efforts in facilitating activities of acquiring, creating, storing, sharing, diffusing, developing, and deploying knowledge by individuals and groups (Demerest, 1997; Rowley, 2001; Soliman and Spooner, 2000). Many frameworks for knowledge management processes have been identified. This study examines three processes that have received the most consensus: knowledge generation, sharing, and utilization (Davenport and Prusak, 1998). Knowledge generation refers to the process in which knowledge is acquired by an organization from outside sources and those created from within (Davenport and Prusak, 1998). Knowledge sharing, also called knowledge transfer or knowledge diffusion, refers to the process by which knowledge is transferred from one person to another, from individuals to groups, or from one group to another group (Davenport and Prusak, 1998). Knowledge utilization, also called knowledge application or knowledge implementation, refers to the process that is oriented toward the actual use of knowledge (Gold et al., 2001).

Organizational effectiveness is "the degree to which an organization realizes its goals" (Daft, 1995, p. 98). In this study, measures assessing organizational effectiveness were adopted from Lee and Choi (2003) which encompass organizational members' perceptions of the degree of the overall success, market share, profitability, growth rate, and innovativeness of the organization in comparison with key competitors.

How well knowledge is managed contributes to organizational effectiveness. "It is what the organization comes to know that explains its performance" (Argote and Ingram, 2000). Some empirical studies confirm a significant linkage between knowledge management and organizational effectiveness. For example, knowledge creation and sharing have been found to contribute to improved performance and innovation (Darr et al., 1995; Epple et al., 1996; McEvily and Chakravarthy, 2002). Knowledge integration could lead to product development effectiveness, reduced defect density, lowered warranty defects, and increased software development efficiency (Tiwana, 2004). Based on these and other studies, it is hypothesized that knowledge management positively contributes to organizational effectiveness.

**H1.** Knowledge management (including knowledge generation, knowledge sharing, and knowledge utilization) relates positively to organizational effectiveness.

### 2.3. Mediating role of knowledge management

Knowledge management serves not only as an antecedent to organizational effectiveness, but also a medium between organizational factors and effectiveness. Knowledge resources are an outcome of organizational culture, structure, and strategy, because knowledge is created, made sense of, and utilized in accordance with a set of cultural values and norms, embedded in structural relationships, and reflected in strategic priorities. For example, knowledge sharing practices are affected by cultural expectations such as what knowledge should be shared with the organization and what should be hoarded by individuals, by structural relationships such as how quickly the knowledge flows through formal reporting relationships, and by strategic priorities such as what knowledge is to be paid attention to and what to be ignored. In turn, organizational knowledge reflective of cultural, structural, and strategic characteristics of the organization is utilized to help produce new products and services, improve efficiency, and enhance effectiveness (Nonaka et al., 2000). Grant (1996) suggests that the challenge of the

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