



# Strategies, technologies, and organizational learning for developing organizational innovativeness in emerging economies <sup>☆</sup>



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## ABSTRACT

Innovativeness is an important organizational capability for competitive advantage sustainability in the dynamic environment of Asia's emerging economies. Drawing upon dynamic capability theory, this study develops a research model of organizational innovativeness development for firms in emerging economies. The proactive strategic orientations reflected by entrepreneurship and technology oriented strategy provide important visions for organizational innovativeness. Further, the utilization of knowledge management systems and organizational learning are identified as intervention processes that translate these strategic orientations into real innovation capability. A survey involving 114 firms operating in China was conducted for hypothesis testing. The empirical results provide strong support and advance the knowledge of organizational innovativeness development for firms in Asia's emerging economies.

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## 1. Introduction

The dynamics of disequilibrium and market disruption postulate that continuous innovation serves as a vital role for firms to gain sustainable competitiveness in a dynamic environment. Further, innovation is particularly important for emerging Asian economies that are currently engaged in strategic transformation. Organizational innovativeness, which refers to a firm's capability to initiate and implement innovations with a speed, is pivotal to its survival and growth (Hurley & Hult, 1998). Rubera and Kirca's (2012) recent meta-analysis demonstrates the significant influence of organizational innovativeness on organizational value via reconsidering both market and financial positions, and how this influence varies depending on the different inherent organizational characteristics.

Proponents of the strategic choice theory argue that capability building, as a strategic action, is the consequence of strategic initiatives pursued by decision makers in an organization. Previous research has relied on the strategy–performance framework and demonstrates the crucial role of strategy formulation in a firm's ability to achieve innovative performance (Hurley & Hult, 1998; Noble, Sinha, & Kumar, 2002; Zhou, Yim, & Tse, 2005). Earlier research has focused on the proactive market-based strategies and related these strategic orientations with organizational innovativeness. For example, Zhou et al. (2005) emphasize the market-based, entrepreneurship and technology-oriented strategies as essential to Asian firms' breakthrough innovations and performance. Avlonitis and Salavou's (2007) empirical study in Greece also demonstrates that the entrepreneurial oriented profiles of small-medium sized enterprises are associated with product innovation and performance.

However, the direct linkage between strategies and organizational innovativeness results in an inadequate understanding of the necessary processes of capability building in organizations. As a type of capability building, organizational innovativeness development not only draws upon strategic orientations, but also requires facilitating organizational resources and processes that are generated by operations. According to the Dynamic Capability View (DCV), firms need to integrate, build, and renew internal and external resources and knowledge in order to gain the creative form of competitive edge in the dynamic environment (Tece, Pisano, & Shuen, 1997). The integration of knowledge and

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resources can reduce organizational inertia and strengthen a firm's innovativeness.

Knowledge integration is possibly implemented in the technical and/or social system of a firm in order to encourage innovation (Damanpour & Evan, 1984), which suggests two mechanisms for developing organizational innovativeness. The former is technology-based knowledge integration, which is related to Information Technology (IT) support, for example, Knowledge Management System (KMS) applications. The second mechanism is learning-based knowledge integration, which is based on a social system used to support communication and knowledge exchange among an organization's members. Organizational learning encapsulates the process from external knowledge acquisition to knowledge internalization and application among an organization's members, shaping knowledge integration in the social system of the firm. However, seldom has research discussed the intervention processes by which KMS applications and organizational learning may bridge the gap between strategic orientations and organizational innovativeness.

This research builds a model of organizational innovativeness development, which is distinguished from prior research in three aspects. First, this study attempts to reveal how the deployment of KMS applications and organizational learning link strategic orientations to organizational innovativeness, addressing the gap of strategy-performance framework. Second, this study takes both technical and social systems of a firm into account for depicting a comprehensive picture of the organizational innovativeness development. Previous research (Zhou et al., 2005) highlights the importance of an organization's social system while ignoring the role of the technical system that also plays an essential role in a firm's capability development. Third, this study attempts to examine the appropriateness of the entrepreneurial and technological oriented strategies in the Asia's emerging economies. China, as the biggest emerging economy in Asia, is closely studied in this research. Practically, this research examines the nuanced effects of different strategies on resource allocation, offering new insights for Asian firms to prioritize resources for developing organizational innovativeness.

## 2. Theoretical research model development

The Dynamic Capability View of a firm highlights the dynamic process of capability building, claiming that competitive success arises from continuous development, reconfiguration, and integration of firm-specific resources (Teece et al., 1997). Further, Grant (1996) stipulates the Knowledge Based View (KBV), arguing that firms must develop capabilities to acquire, assemble, integrate, and deploy valuable knowledge-based resources to achieve a sustainable competitive advantage. The emergence of new products and processes results from a new combination and integration of knowledge, and the strategic organizational renewal is essential for the long-term survival of firms. Hence, organizational innovativeness development is associated with the integration of complementary knowledge-based resources into significant capabilities.

Strategically, organizational innovativeness development is related to organizational strategies, because strategic intent is needed for a firm that is in search of a superior position from the position of backwardness. Tuominen, Rajala, and Möller (2004) propose the market and technological focus for firms to adapt to a dynamic environment at a strategic level, and demonstrate that these strategic focuses are related to organizational innovativeness. This study focuses on two proactive strategies including entrepreneurial and technological oriented strategies that satisfy customers' potential needs and ensure firms are ahead of competitors and the market.

Operationally, organizational innovativeness development is associated with knowledge and resources that can carry strategic orientations to innovation. The innovation development is a knowledge integration process (Grant, 1996), which can be implemented in a firm's technical and social systems (Damanpour & Evan, 1984). With regard to the technical system, research in the Information Systems (IS) field has long acknowledged the critical role of IT-related resources in developing capabilities. The technical system mentioned in this study is related to KMS applications that enhance a firm's innovativeness by capturing, integrating, and leveraging valuable knowledge from various sources. It is noteworthy that the technology infrastructure itself may not necessarily add value to a firm's innovativeness, rather, it is the flexible use of certain KMS applications that activates the development of organizational innovativeness (DeLone & McLean, 2003).

As a counterpart of the technical system, the social system in a firm supports the interaction between the external environment and internal members as well as the communication among organizational members. Organizational learning largely contributes to internalization and application of external knowledge for organizational innovation (Tippins & Sohi, 2003; Zhou et al., 2005). By importing new knowledge, the learning practices break organizational inertia and increase technological and administrative variances in organizations. Organizational learning is anchored in both exploiting existing knowledge and resources for efficiency and in exploring knowledge for new possibilities (Huber, 1991).

Thus, based on DCV and KBV, a research model is developed, as shown in Fig. 1. Firms striving for superior performance need to continuously integrate and leverage different bundles of resources and stimulate knowledge-intensive actions in order to build up organizational innovativeness. Strategic orientations are drivers of organizational behavior in the development of a firm's innovation capability, and KMS usage and organizational learning are co-specialized resources for crafting a firm's innovativeness.

## 3. Hypotheses

### 3.1. Entrepreneurial-oriented strategy

Entrepreneurial orientation is key for initiating innovative activities. Entrepreneurship emphasizes a proactive and aggressive focus on innovation, which meets the unarticulated needs of emerging customers and

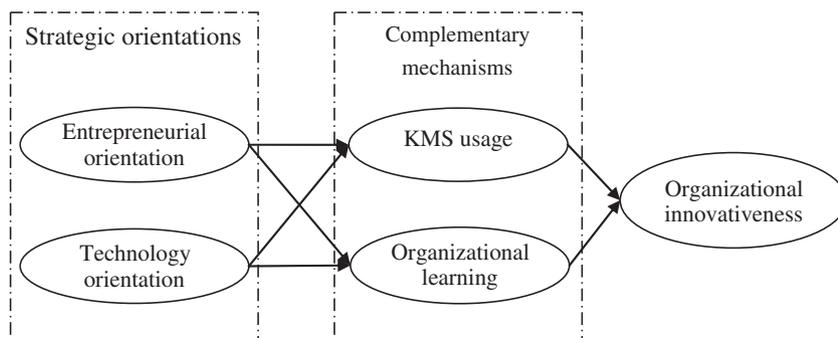


Fig. 1. Research model.

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