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Entrepreneurial orientation and firm performance: The role of knowledge creation process

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ABSTRACT

This study examines the relationships among entrepreneurial orientation, knowledge creation process, and firm performance using survey data from 165 entrepreneurs. We use LISREL analysis to test the direct and indirect effects of the entrepreneurial orientation on firm performance. Knowledge creation process – operationalized to reflect the dimensions of socialization, externalization, combination, and internalization – is used as the mediating variable for explaining the relationship between entrepreneurial orientation and firm performance. The results indicate that the significance of the direct effect of entrepreneurial orientation on firm performance is reduced when the indirect effect of entrepreneurial orientation through knowledge creation process is included in a total effect model. Consequently, entrepreneurial orientation is positively related to firm performance, and knowledge creation process plays a mediating role in this relationship.

1. Introduction

Entrepreneurial orientation refers to a firm's strategic orientation, acquiring specific entrepreneurial aspects of decision-making styles, practices, and methods (Lumpkin & Dess, 1996). Entrepreneurship scholars have attempted to explain performance by investigating the relationship between entrepreneurial orientation and firm performance (Lumpkin & Dess, 2001; Wiklund & Shepherd, 2003, 2005; Zahra & Covin, 1995; Zahra & Garvis, 2000). Some studies found that entrepreneurial orientation enables small firms or new ventures, which are defined as firms newly built or less than ten years old (Lussier, 1995), to perform better than competitors and enhance firm performance (Ireland, Hitt, & Sirmon, 2003; Lumpkin & Dess, 2001; Wiklund & Shepherd, 2005; Zahra & Garvis, 2000). However, the results of empirical studies are mixed. The varied empirical results raise the question of whether entrepreneurial orientation is always an appropriate strategic orientation or if its relationship with performance is more complex. As argued by Lumpkin and Dess (1996), most studies investigating the independent effect of entrepreneurial orientation on firm performance ignore the factors that may mediate the strength of the entrepreneurial orientation — firm performance relationship (Wiklund & Shepherd, 2005).

Entrepreneurial orientation reflects how a firm operates rather than what it does (Lumpkin & Dess, 1996). As newly built firms, new ventures tend to have relatively limited financial and managerial resources (Eisenhardt & Schoonhoven, 1990), so they may be especially careful in pursuing strategic orientation. Given the importance of entrepreneurship to firm performance, entrepreneurial orientation can be an important measure of how a firm is organized to discover and exploit market opportunities (Barringer & Bluedorn, 1999; Ireland et al., 2003; Wiklund & Shepherd, 2003; Zahra & Garvis, 2000). The resource-advantage theory views entrepreneurial orientation as resource that facilitate a firm to outperform other rivals and yield marketplace positions of competitive advantage (Hunt, 1995; Hunt & Morgan, 1996, 1997). The development of entrepreneurial orientation requires organizational members to engage in intensive knowledge activities. From the perspective of resource-advantage theory, knowledge is not easily transferred and dispersed due to its characteristics of tacitness and immobility (Grant, 1996; Hunt & Arnett, 2006; Hunt & Morgan, 1996). To respond to the dynamic and competitive environment, firms need to consistently transfer entrepreneurial orientation into feasible strategic activities to fulfill the firms' objectives and achieve superior performance by focusing attention on the utilization of knowledge creation process. Knowledge creation process allows firms to amplify knowledge embedded internally and transfer knowledge into operational activities to improve efficiency and create business value (Nonaka & Konno, 1998; Nonaka & Takeuchi, 1995; Nonaka, Toyama, & Nagata, 2000a). Based on the theory of knowledge creation, knowledge is created through a spiral process of socialization, externalization, combination,

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and internalization (SECI) (Nonaka, 1994; Nonaka & Konno, 1998). The SECI process of knowledge creation describes dynamic interaction between tacit and explicit knowledge (Nonaka, 1994; Nonaka & Takeuchi, 1995). When new ventures develop and formulate entrepreneurial orientation, they can utilize the SECI spiral of knowledge creation to connect and arrange new and existing knowledge from many different individuals (Gold, Malhotra, & Segars, 2001; Nonaka & Takeuchi, 1995; Nonaka, Toyama, & Konno, 2000b). Employees can learn and exchange knowledge collectively, and better understand entrepreneurial style and vision articulated by explicit concepts and notions. Entrepreneurial practices and activities are then integrated and disseminated throughout the firm to generate more knowledge applications. A firm can actualize entrepreneurial orientation into practical action and embody knowledge into valuable assets to advance new products development or marketing activities (Nonaka, 1994; Nonaka & Konno, 1998; Nonaka & Toyama, 2005; Nonaka et al., 2000a). Such dynamic knowledge conversion of SECI can enhance the firm's capability to fulfill the strategic objective and achieve firm performance such as product innovation or process improvement (Chia, 2003; Droge, Claycomb, & Germain, 2003; Lee & Choi, 2003; Teece, 1998). Accordingly, knowledge creation process plays a critical role in the formulation and activation of entrepreneurial orientation of firms. Knowledge creation process may facilitate entrepreneurial orientation to transform into knowledge assets shared by organizational members and result in enhanced firm performance. However, little empirical study has examined how entrepreneurial orientation could utilize knowledge creation process for the improved performance.

In this study, we add to previous studies that have examined the effects of entrepreneurial orientation on firm performance. The primary objective of this article is to examine how entrepreneurial orientation adopted by new ventures affects firm performance through knowledge creation process. Using Nonaka's theory of knowledge creation as a theoretical angle (Nonaka, 1994), we develop and test hypotheses on such mediating effect using a sample of new ventures in Taiwan. We focus on the importance of knowledge creation process in the relationship between entrepreneurial orientation and firm performance by examining the direct effect of entrepreneurial orientation upon firm performance and the indirect effect of entrepreneurial orientation upon firm performance through knowledge creation process. The rest of the paper is set out as follows. The next section considers the previous literature and sets out the hypotheses of this study. Following is the methodology for the study. Then, the paper presents the results of the empirical study in achieving the goals as those set out above. Discussion and conclusions are provided in the last section.

2. Research background

In order to better and sustain competitive advantage, new ventures must acquire, retain, integrate, and create knowledge. The theory of knowledge creation depicts a firm as an entity to create knowledge actively (Nonaka, 1994; Nonaka & Konno, 1998; Nonaka & Takeuchi, 1995). According to Nonaka and Toyama (2005), knowledge creation processes in particular are important for new ventures to engage in new product development or marketing activities. Through knowledge conversion and creation, employees could utilize collective knowledge to serve customers or clients. Such tacit and explicit knowledge is relevant to market-related knowledge (Nonaka & Toyama, 2005).

Focusing on knowledge creation interacted between tacit and explicit knowledge, Nonaka (1994) identified four possible knowledge creation processes: socialization, externalization, combination, and internalization. Socialization process converts tacit knowledge held by individuals into new tacit knowledge through shared experiences and joint activities such as apprenticeships or social interaction among organizational members (Nonaka, 1994). The socialization process could be extended out of the firm to learn through external networks. The community of social interaction might span organizational boundaries to include supplier, customers, distributors, and competitors through the formation of alliances or outsourcing. Externalization articulates tacit knowledge into explicit and comprehensible forms that are more understandable to others. Externalization can be seen in the process of concept expression and triggered by metaphors, analogies, or dialogues (Nonaka, 1994; Nonaka & Takeuchi, 1995). Combination process converts explicit knowledge collected from inside or outside the organization into more complex and systematic explicit knowledge. The explicit knowledge may be embodied in action and practice. Internalization process transfers explicit knowledge into tacit knowledge. In internalization, individuals can acquire and absorb knowledge through demonstration or other means such as learning by doing and on-the-job training (Nonaka & Takeuchi, 1995; Nonaka et al., 2000b).

To examine knowledge creation process, this study adopts the SECI model (socialization, externalization, combination, and internalization) by Nonaka (1994) for the following reasons. First, the SECI model is one of the few knowledge creation theories available that explores the interrelationships between explicit and tacit knowledge. Second, the SECI model contains not only knowledge transfer but also knowledge creation. The existing knowledge transfer and the new knowledge creation are very significant in knowledge management. Third, the SECI model has been widely used in many research areas such as organizational learning and new product development (Lee & Choi, 2003; Nonaka et al., 2000b).

For the purpose of achieving a better understanding of firm performance, new ventures should attempt to link entrepreneurial orientation with knowledge creation process. The vital knowledge creation processes are socialization, externalization, combination, and internalization, which provide a key to the understanding of the dynamic processes of knowledge creation in the relationship between entrepreneurial orientation and firm performance.

2.1. Entrepreneurial orientation and firm performance

Entrepreneurial orientation involves a willingness to innovate, search for risks, take self-directed actions, and be more proactive and aggressive than competitors toward new marketplace opportunities (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2005). We distinguished five dimensions of entrepreneurial orientation, including innovativeness, risk-taking, proactiveness, competitive aggressiveness, and autonomy, as suggested by Miller (1983) and Lumpkin and Dess (2001). The importance of entrepreneurial orientation to the survival and performance of firms has been acknowledged in the entrepreneurship literature (Miller, 1983; Lumpkin and Dess, 2001; Wiklund, 1999; Wiklund & Shepherd, 2005; Zahra & Covin, 1995; Zahra & Garvis, 2000). The empirical evidences from Zahra and Covin (1995) and Wiklund (1999) showed that the positive influence of entrepreneurial orientation on performance increases over the span of time. From the perspective of resource-advantage theory, entrepreneurial orientation can be regarded as organizational resource (Hunt, 1995; Hunt & Morgan, 1996). Such resource can differentiate a firm from other rivals and result in economic dynamism and wealth creation in the competitive process (Hunt & Morgan, 1996; Ireland et al., 2003; Shane & Venkataraman, 2000). Firms with entrepreneurial orientation have the capabilities to discover and exploit new market opportunities (Barringer & Bluedorn, 1999; Lee, Lee, & Pennings, 2001; Wiklund & Shepherd, 2003), and they can respond to challenges to prosper and flourish in the competitive and uncertain environment (Lumpkin & Dess, 1996; Shane & Venkataraman, 2000).

Prior research has employed a variety of financial measures such as revenue, cash flow, return on assets, return on equity, and so forth to assess firm performance (Haber & Reichel, 2005). Such objective