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Ownership structure, independent board members and innovation performance: A contingency perspective☆

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ABSTRACT

This study advances the research on corporate governance and innovation by investigating how technology diversity strategy and absorptive capacity shape the relationships between foreign ownership, independent board members and firm innovation in emerging economics. Using panel data from 138 Taiwanese firms, this study finds that the relationship between foreign ownership and innovation performance is negatively moderated by technology diversity strategy. The relationship between the proportion of independent board members on the board and innovation performance is positively moderated by technology diversity strategy, whereas the focal link is negatively moderated by absorptive capacity. These findings contribute to a better understanding of how the fit relationships of governance arrangements (foreign ownership and independent board members) with internal conditions (technology diversity strategy and absorptive capacity) influence firms' ability to benefit from innovation activities. Finally, this study discusses the managerial implications and highlights future research directions.

1. Introduction

Innovation is a dominant source of sustainable competitive advantage of firms (Madhavan & Grover, 1998; Subramaniam & Youndt, 2005; Wadhwa & Kotha, 2006). This is particularly true in emerging economics since globalization of emerging markets brings both opportunities and pressure for domestic firms to innovate and mitigate competition for long-term survival (Lodh, Nandy, & Chen, 2014). Innovation is complex and requires firms to possess valuable and specific resources (Howells, James, & Malik, 2003). Based on the resource dependence perspective, previous studies suggest that individual firms usually do not possess all the resources required to produce innovations (Pfeffer & Salancik, 1978).

The literature on corporate governance has shown that foreign firms and independent board members are critical outside stakeholders in emerging economics since they can bring in necessary resources for innovation activities (Choi, Park, & Hong, 2012; Chen & Hsu, 2009; Chen, Li, Shapiro, & Zhang, 2014; Shapiro, Tang, Wang, & Zhang, 2013). For example, Chen et al. (2014) indicate that foreign firms often have codified technology knowledge, advanced managerial expertise and global networks. Firms can leverage those resources obtained from foreign firms to enhance their innovation capabilities. Although other studies suggest that other types of ownership structure, such state and institutional ownership can bring in different resources for firms, globalization and the rapid growth of international business make foreign ownership is imperative for firms to seek global collaboration and expansion opportunities. Meanwhile, some studies suggest that independent board members often possess superior monitoring capability to help firms manage R&D investment and can provide access to external resources for technological innovation activities (Shapiro et al., 2013). Thus, the resource dependence perspective views both foreign firms and independent board members as boundary spanner who assists firms to acquire the needed resources for innovation activities (Choi et al., 2012; Pfeffer & Salancik, 1978).

Due to the importance of foreign ownership and independent board members for firms in emerging economics, many studies examine how they affect innovation performance (Chen, 2013; Chen & Hsu, 2009; Choi, Lee, & Williams, 2011; Choi et al., 2012; Lodh et al., 2014; Shapiro et al., 2013). However, the results of empirical tests have been decidedly mixed. Some studies indicate that foreign ownership and independent board members can improve innovation performance (Choi et al., 2011, 2012; Shapiro et al., 2013), whereas other studies do not (Chen, 2013; Chen & Hsu, 2009; Lodh et al., 2014). The mixed findings

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may stem from that the strategies and capabilities of firms differ in their nature. The resource dependence perspective suggests that the internal governance arrangement is contingent on the firm's current strategy and capabilities (Hillman, Withers, & Collins, 2009; Pearce & Zahra, 1992). However, the extent literature contains no investigation into how foreign ownership and independent board members are contingent on technology diversity strategy and absorptive capacity. Significantly, technology diversity strategy and absorptive capacity of firms are key conditions which facilitate or impede outside resource acquisition and application on firm innovation (Tsai, 2001; Wadhwa & Kotha, 2006). Accordingly, this study focuses on this issue and attempts to advance the innovation literature by investigating how technology diversity strategy and absorptive capacity influence the relationships between foreign ownership, independent board members and firm innovation performance.

Empirically, this study argues that Taiwan provides an interesting empirical setting in which to examine how the internal governance arrangement influences firm innovation performance for the following reasons: (i) most Taiwanese firms have successfully made transition from original equipment manufacturer (OEM) to innovation-oriented firms. Innovation is an important and a challenging task for firms in Taiwan since they operate with limited resources and organizational capabilities (Jean, Kim, & Sinkovics, 2012). Taiwanese firms have to access critical outside stakeholders to acquire resources necessary for innovation; (ii) firms in emerging economics may have different corporate governance characteristics that are critical for innovative activities from the developed economics (Choi et al., 2012); (iii) during the 1997 financial crisis, the average returns of many firms in Taiwan plunged. Taiwan's government has raised awareness about the critical role of corporate governance (Wu, 2008). In order to enhance the efficiency of corporate governance, firms characterized by strong family holdings and interfirm cross-holding have adjusted their governance arrangement with more outside stakeholders, such as foreign ownership, institutional ownership and outside board members. The changes in corporate governance structure were critical in securing competitive advantage and achieving superior firm performance.

This study contributes to the existing knowledge in several respects. First, previous studies have demonstrated an interest in obtaining a better understanding of how foreign ownership and independent board members influence firm innovation in emerging economies. Unlike past research that focused on the direct effects on firm innovation results, this study bases on the resource dependence perspective and examines how their relationships change with different firm technology strategies and capabilities. Second, although the literature has recognized the importance of technology diversity strategy and absorptive capacity, previous studies did not pay much attention to how they interact with internal governance arrangement on firm innovation. This study extends this research stream by showing that technology diversity strategy and absorptive capacity not only have direct effects on firm innovation but also play critical moderating roles in the relationship between internal governance arrangement and firm innovation. Third, the performance implications of corporate governance were undertaken widely in the context of advanced economies, such as the U.S. and Japan. Insights into how corporate governance affects firm innovation in emerging economies are still scarce in the literature (e.g. Chen et al., 2014; Choi et al., 2012; Shapiro et al., 2013). The use of Taiwan data extends our understanding of the corporate governance–innovation relationship in emerging economies.

2. Research background and hypotheses

Faced with a turbulent environment and international competition, innovation has been seen as a major source of competitive advantage (Shapiro et al., 2013). In many cases, firms do not possess all the required resources for innovation (Wadhwa & Kotha, 2006). According to resource dependence perspective, the firm is an open system and dependent on the external environment to accumulate the necessary resources (Hillman et al., 2009; Pfeffer & Salancik, 1978). A lack of necessary resources yields uncertainty and risks to firms' innovation activities. In other words, it is difficult for firms to develop new technologies and products effectively without sufficient resources (Dalziel, Gentry, & Bowerman, 2011). Corporate governance studies have indicated that foreign firms and independent board members are critical outside stakeholders to help firms acquire the resources necessary for innovation in emerging economics (Choi et al., 2012; Shapiro et al., 2013).

2.1. Foreign ownership and innovation

Foreign ownership refers to the number of company shares held by foreign investors (Choi et al., 2011). Compared with developed economics, emerging economics in general have the inadequate external institutions and weak property-rights regimes (Chen et al., 2014). In such an environment, focal firms cannot gain the resources necessary for innovation easily (Chen et al., 2014), especially tacit knowledge, such as technological and managerial knowledge. Foreign firms which often have codified technology knowledge and advanced managerial expertise as well as global networks are critical for innovation activities of focal firms in emerging economics.

Drawing from the resource dependence perspective, foreign firms have been seen as resource-rich outside shareholders that can help firms in emerging economics bring in necessary resources for innovative activities (Choi et al., 2012). Specifically, foreign firms holding equity shares of local firms tend to prioritize their strategic interests, such as searching for new markets (Douma, George, & Kabir, 2006). Foreign firms usually focus on the overseas market, especially as the investment relates to their core business (Choi et al., 2012; Douma et al., 2006). In order to achieve competitive advantage in the overseas market, foreign firms require more advanced technology capabilities than other firms in host markets (Chang, 1995; Choi et al., 2011). In this vein, holding an ownership stake in a local firm would motive foreign firms to provide specific technological and managerial resources and help the local firm intensify its R&D efforts (Choi et al., 2011). Foreign firms are also able to force local firms to invest more resources in technology development activities by taking advantage of their ownership shares (Chang, Chung, & Mahmood, 2006). In addition, foreign firms may have relational resources and networks abroad (Douma et al., 2006). Local firms invested by foreign firms can leverage those relational resources to cooperate with and exploit knowledge from other firms (Acquaah, 2007; Yli-Renko, Autio, & Sapienza, 2001). This can assist local firms in creating new knowledge and upgrading their innovative capability (Atuahene-Gima, 2005), which in turn can accelerate their innovation process and achieve superior innovation performance. Therefore, firms with a high level of foreign ownership not only can gain the necessary technological and managerial resources from foreign firms, but also can leverage their relational resources to increase collaboration with other firms to develop new products, thereby enhancing innovation performance.

2.2. Independent board member and innovation

An independent board member is defined as a director who has no discernable ties to the firm (Mallette & Hogler, 1995). In emerging economics, the human and social capital of independent board members, such as advanced industry expertise and monitoring capability as well as external networks is important for innovative activities. The resource dependence perspective notes that independent board members are critical outside shareholders that can help firms gain needed resources and improve their innovation performance. Specifically, independent board members have been seen as the critical external human resources in the firm because they have greater monitoring capability and often possess advanced expertise and knowledge (Stevenson & Radin, 2009). Firms engaging in innovation activities not only face inevitably complex but also need to commit a great amount of resources, and thus a serious evaluation is necessary. Firms can leverage the monitoring