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Market-oriented institutional change and R&D investments: Do business groups enhance advantage?

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ABSTRACT

Emerging market firms (EMFs) are increasingly relying on innovation to find their competitive advantage, but our understanding of how institutional change affects firm innovation has been limited. We analyzed Korean manufacturing firms from 1994 to 2006 to test the proposition that market-oriented institutional change in an emerging economy alleviates firms' financing constraints and monitoring problems and improves the effectiveness of their innovation activities. Institutional evolution in the economy was found to affect Korean business groups and independent firms differently. Institutional change reduced the financing constraints on independent firms more than for business group affiliates in R&D investment. Independent firms, however, appeared less capable than group affiliates of translating the benefits of improved institutional environments into efficient R&D investment. This asymmetry may lead to a wider gap in the efficiency of R&D investment between business group affiliates and independent firms.

1. Introduction

Market-oriented institutional change, referring mainly to market liberalization and corporate governance reforms, has been actively pursued in many emerging economies (Cuervo-Cazurra & Dau, 2009; Kim, Kim, & Hoskisson, 2010; Peng, Wang, & Jiang, 2008; Rubach & Sebora, 1998; Shenkar & von Glinow, 1994). Such institutional change has immense potential to shape a firm's strategic choices (North, 1990). R&D investment in particular is viewed as influenced by institutional change because risky and long-term R&D investment is related not only to a firm's financial resources but also to decision makers' agency problems (Kim, Kim & Lee, 2008). Many emerging market firms (EMFs) are trying to establish a competitive advantage based on innovation in the environment of market-oriented institutional changes (Guillén & García-Canal, 2009; Kafouros & Forsans, 2012). Yet, little is known about how such firms adapt their innovation to the changes in their environments.

Business scholars have formulated the institutional voids perspective in an attempt to explain EMFs' advantages and disadvantages and to predict the effect of increasing market-orientation on those firms. It proposes that business groups in emerging economies have an advantage over independent firms because group membership compensates for deficiencies in business infrastructures such as financial capital, product, and labor markets (Granovetter, 1995; Kedia, Mukherjee, & Lahiri, 2006; Khanna & Palepu, 1997; Khanna & Rivkin, 2001; Lee, Peng, & Lee, 2008). Financial market liberalization, in particular may directly influence R&D investment decisions. Poorly functioning external capital markets in emerging economies have imposed severe financing constraints, referring to the extent to which a firm faces difficulties in obtaining external finance due to financial frictions that stand in the way of funding productive investments (Laeven, 2003). It has been suggested that business group membership can help alleviate this problem (Almeida & Wolfenzon, 2006; Belenzon, Berkovitz, & Rios, 2013; Fazzari, Hubbard, & Petersen, 1988; Hoshi, Kashyap, & Scharfstein, 1991). To the extent that this is a significant advantage, one would expect the advantages of group affiliation to fade as an economy's institutions develop toward greater market orientation.

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Agency theory scholars, however, disagree with the institutional voids argument. They focus on the failure of internal capital markets and point out that business groups often involve unproductive cross-subsidization among the members in terms of providing loans or loan guarantees, equity investment, and internal transactions designed to help unprofitable affiliates (Bae, Kang, & Kim, 2002; Estrin, Poukliakova, & Shapiro, 2009; Ferris, Kim, & Kitsabunnarat, 2003; Friedman, Johnson, & Mitton, 2003; Whited, 2001). They suggest that the performance of business group affiliates may suffer from severe governance problems (Cuervo-Cazurra, 2006) and that institutional change that fixes governance problems, such as legal provisions to protect minority shareholders, should increase group members' advantages and improve their performance (Cuervo-Cazurra & Dau, 2009; Klapper & Love, 2004).

The empirical results testing these contrasting theories have been mixed. Studies have found that the performance of business groups in Chile (Khanna & Palepu, 2000a) and Korea (Lee et al., 2008) declined over time as institutions in those economies developed. However, some studies informed no relationship. For instance, Chari and David (2012) found that business group affiliation did not weaken the negative effect of pro-market reforms on sustainability of superior profits among Indian companies. Further, a growing number of studies focusing on governance have shown that firms with governance problems perform better than firms with less serious governance problems after institutional change (Cuervo-Cazurra & Dau, 2009). The divergent theories and empirical evidence hint that the effect of institutional change is more complex than has been considered in past research, demanding a more careful investigation, in particular of the difference in governance among EMFs.

The purpose of this study is to investigate how the R&D investments of business group affiliates relate to their internal cash resources and growth opportunities. The relationships are compared with those of independent firms in the early and late phases of market-oriented institutional change in Korea. This involves directly accounting for the financing constraints during different phases of institutional change that would also impose differing pressures on business groups to reform their corporate governance. The tension between the two approaches is considered as lying in the efficacy of business group affiliation as either an effective mechanism for alleviating financing constraints or an ineffective mechanism creating agency costs. Hence, as firms' both financing constraints and corporate governance reforms fluctuate with institutional change in the economy, this may explain any association between observed R&D investment and perceived growth opportunities, thus linking market-oriented institutional change to the efficiency of R&D investment.

This study extends prior work in several ways. The results show evidence of a strong relationship between market-oriented institutional change and R&D investment. Considering both the financing constraints and corporate governance perspectives together helps to better explain how the R&D investment decisions of group affiliates and independent firms are affected differently by institutional evolution. The findings also suggest that the institutional voids perspective is incomplete, as business groups may improve the efficiency of their R&D investment more than independent firms through a strong governance reforms in the wake of the significant institutional changes triggered by the financial crisis.

2. Theoretical background and hypotheses

Business groups are a prevalent organizational form in many emerging economies. The term refers to a set of legally independent firms bound together in formal and/or informal ways that do business in different markets under common administrative and financial control (Granovetter, 1995; Leff, 1978). Such groups often create an internal capital market that can help alleviate financing constraints on the group's affiliates. However, whether internal capital markets in emerging economies are conducive to efficient resource allocation and whether the influence changes over institutional change are still a matter in question. In the following sections, we overview the market-oriented institutional change in Korea and then develop hypotheses on how group affiliates and independent firms are, before and after the institutional change, associated with cash resources and growth opportunities in making R&D investments.

2.1. Institutional change in Korea

Market-oriented institutional change in emerging economies normally aims at reducing the role of politics and the state in the economy. In Korea, this began in the late 1970s (Henisz, Zelner, & Guillén, 2005). Since then, Korea's institutional environments have moved toward more market orientation through multiple steps.

When the Korean government initiated economic development plans for the 1962–1997 period, it used financial institutions as a tool for attaining its industrial policy goals and continued to intervene in the banking industry. Due to this heavy government involvement, the banks failed to build the ability to assess borrowers' earnings performance, cash generation, and ability to repay, and began to require high levels of collateral and debt guarantees to protect their assets (Ahn, 2001; Chang, 2003). Business groups with more affiliates were able to extend more collateral and debt guarantees to their affiliates, who then received better financial treatment than independent companies and were better positioned to exploit opportunities for expansion. At the same time, such a weak institutional environment led to severe financing constraints for independent firms (Ahn, 2001; Chang, 2003).

The corporate governance system in Korea was usually portrayed as an insider-oriented governance system that relies on long-term debt financing, ownership by large shareholders, and weak corporate control by the markets (Aguilera & Jackson, 2003). But following liberalization trends in the world markets (e.g., the Uruguay Round of General Agreement on Tariffs and Trade negotiations in 1993 and the establishment of the World Trade Organization in 1995) and Korea's entry into the Organization for Economic Co-operation and Development in 1996, the institutional environment evolved in stages toward greater market-orientation. The early stage of institutional change initiated by those international and indigenous efforts had continued until more fundamental and comprehensive reform measures were introduced as a response to the Asian financial crisis of 1997/1998. During the early stage, inconsistencies and tension remained between the traditional systems and the new market-oriented ways of doing things, and non-market institutional logic still prevailed in many business spheres (Kim et al., 2010). The post-crisis restructuring efforts of the government and the International Monetary Fund were largely designed to improve business groups' corporate governance and capital structures (Ahn, 2001; Hundt, 2005; Park & Kim, 2008). The reform measures included the abolition of cross-debt guarantees among business group affiliates, improvements in capital structures, and the enhancement of controlling shareholder and management accountability. Financial market supervisory agencies have since rigorously supervised business group control of non-bank financial institutions and inter-affiliate investment (Hundt, 2005).

The reform measures adopted after the financial crisis have helped engineer a move toward a more market-oriented economy (Kim et al., 2010). For example, contract enforcement and