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Impact of Chinese cross-border outbound M&As on firm performance: Econometric analysis using firm-level data☆

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ABSTRACT

Chinese cross-border outbound mergers and acquisitions (M&As) have been expanding rapidly since the mid-2000s with target firms in developed countries. The primary motives for such M&As are expansion into new markets and sourcing of knowledge and strategic assets. This study is the first attempt to examine the effects of Chinese outbound M&As on firm performance by applying propensity score matching estimations to a large set of firm-level data. We find that the sales, productivity, and tangible as well as intangible assets of the acquiring firms increase substantially after M&A transactions, which suggest that Chinese firms on average achieve their intended goals of outbound M&As. Further, outbound M&As do not increase research and development (R&D) intensity, implying complementarity, rather than overlapping, between R&D activities of the acquiring and acquired firms.

1. Introduction

As the Chinese economy continues to grow rapidly, China's foreign direct investment (FDI) outflows are also increasing rapidly from 1 billion US dollars in 2000 to 58 billion US dollars in 2010 (World Bank, 2012). Recently, China has begun to engage in cross-border outbound mergers and acquisitions (M&As) as a means of effecting FDI. In 2000, there were 25 Chinese outbound M&A transactions worth a total value of 1.3 billion US dollars; in 2008, the number and value of such transactions increased to 114 and 68 billion US dollars, respectively (Sun, Peng, Ren, & Yan, 2012). Accordingly, cross-border M&As have become a major channel for China's FDI outflows; by 2010, cross-border M&As represented 43% of the total FDI outflows (UNCTAD, 2012).

The rise of China's outbound FDI and M&As has stimulated academic research (Buckley et al., 2007; De Beule & Duanmu, 2012; Deng, 2009; Kolstad & Wiig, 2010; Ramasamy, Yeung, & Laforet, 2010; Sun et al., 2012). However, there have been few econometric studies on the effects of Chinese outbound M&As on firm performance. An exception is Boateng, Qian, and Tianle (2008) who applied a

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simple t-test to data for 27 Chinese acquiring firms and found that cumulative abnormal returns are on average 1.3% for these 27 firms. However, Boateng et al. (2008) did not correct for possible endogeneity biases due to the selection of M&A firms. Moreover, they did not examine firm performance outside stock markets, such as sales, productivity, research and development (R&D) intensity.

To bridge the gap, this paper attempts to estimate the effects of Chinese outbound M&As on the Chinese acquiring firm's performance by using a unique firm-level dataset for the 2006–2011 period constructed from the list of M&A transactions as well as firm-level balance sheets. To control for endogeneity biases, we employ propensity score matching (PSM) estimations combined with a difference-in-differences (DID) approach, finding that the sales, productivity, and tangible and intangible assets of the acquiring firms increase substantially after M&A transactions, whereas R&D intensity remains the same. These findings suggest that the intended goals of such outbound M&As, i.e., expansion into new markets and sourcing of knowledge and strategic assets, are on average achieved and that the R&D activities of the acquiring and acquired firms are complementary, rather than overlapping.

2. Literature review

2.1. Motivations and effects of cross-border M&As

A large body of literature shows that the motivations of cross-border M&As include expanding to a new market (Barkema & Vermeulen, 1998; Martin, Swaminathan, & Mitchell, 1998; UNCTAD, 2000). Because expansion to a new market is often costly and time consuming for foreign firms, as a result of differences in business environments and institutions, cross-border M&As represent an effective channel to reach new markets. Another motive of cross-border M&As is to acquire resources and capabilities in the form of tangible assets such as production plants, human capital, technology and know-how that are easily traded (Chung & Alcácer, 2002; Shimizu, Hitt, Vaidyanath, & Pisano, 2004). However, resources may also be strategic assets, which are defined as the set of difficult to trade and imitate, scarce, appropriable and specialized resources and capabilities that bestow firm's competitive advantage (Amit & Schoemaker, 1993). Strategic assets typically include reputation, buyer–supplier relationships, brand names, tacit knowledge, proprietary technologies, and R&D capabilities that cannot be traded (Deng, 2009).

Another strand of literature has examined whether acquirers and targets achieve these goals through a cross-border M&A by utilizing qualitative and quantitative data, mostly from developed countries. For example, using firm-level data for the United Kingdom and France Stiebale and Trax (2011), find that cross-border M&As increase acquirers' sales and assets on average without decreasing domestic labor force. Further, Stiebale and Trax (2011) find that cross-border M&As in knowledge-intensive industries improve domestic productivity. However, positive effects of cross-border M&As are not always realized. Using firm-level data from Russia Bertrand and Betschinger (2012), find that cross-border M&As reduce acquirers' profitability. In an extensive review of related studies Tuch and O'Sullivan (2007), conclude that the results concerning the effects of M&As on firm performance – as measured by conventional accounting measures, such as operating margins and returns on assets and equity – are mixed. In a meta analysis King, Dalton, Daily, and Covin (2003), also “find robust results indicating that, on average and across the most commonly studied variables” – such as abnormal returns and return on assets – “acquiring firms' performance does not positively change as a function of their acquisition activity, and is negatively affected to a modest extent” (p. 187).

Some studies focus on the effects of M&As on R&D activities in particular because one of the major motives of cross-border M&As is knowledge sourcing. Theoretically, the net impact of M&As on R&D activities is ambiguous. On the one hand, because outbound M&As may enhance R&D efficiency, they may also encourage further R&D activities. On the other hand, they may discourage R&D because they may reduce competition and remove duplicated R&D (Bertrand & Zuniga, 2006). Empirical studies show that the effect varies depending on the acquiring and target firms' characteristics, in addition to the characteristics of various industries. For example, using country-industry-level data for OECD countries Bertrand and Zuniga (2006), find that an outbound M&A has no significant effect on the R&D activities of the buyer firm's home country, whereas it has a positive effect on those of the target firm's host country. Examining 31 M&A transactions in detail Cassiman, Colombo, Garrone, and Veugelers (2005), conclude that M&As between firms with complementary technologies result in more active R&D, whereas M&As lower R&D activity when the buyer and target technologies are substitutes. Similarly, using Spanish firm-level data, Barcia-Vega et al. (2012) find that Spanish firms acquired by firms in technologically leading countries reduce their internal R&D efforts while those acquired by firm in non-leading countries increase internal R&D efforts.

2.2. Chinese outbound M&As

The motivations of Chinese outbound M&As are similar to those of other cross-border M&As. Boateng et al. (2008) closely examine 27 Chinese cross-border outbound M&A transactions from 2000 to 2004 and find that the primary motivations for Chinese outbound M&As are to facilitate international expansion and diversification, to increase market share and power, and to acquire strategic assets (i.e., technology and know-how). According to the dataset provided by ChinaVenture that is explained in detail in Section 3 below, the destinations of Chinese outbound M&As are mostly developed countries, such as the United States, Australia, the United Kingdom, Singapore, and Japan (Table 1). The manufacturing and service sector account for 37 and 29% of the target firms, respectively, during the 2000–2010 period, and major target industries are mostly high-tech industries, such as the machinery and information technology industries (Table 2). The evidence supports the strategic-assets-seeking view that Chinese firms aim to acquire advanced knowledge and know-how available in developed countries through outbound M&As. Moreover, another large fraction (25%) of Chinese outbound M&As are in the mining sector, supporting the view that some M&A activity is motivated by facilitating access to natural resources.