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Global integration strategies of small and medium multinationals: Evidence from Taiwan

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ABSTRACT

This study replicates and extends Birkinshaw et al.'s (1995) model of the predictors of business unit integration of large Western multinational corporations (MNCs). Our study investigates the global integration strategies of Taiwanese small and medium sized enterprises (SMEs) competing in the global information technology (IT) industry. It confirms the importance of some structural forces (i.e. economies of scale and standard market demands) in the global integration strategies of Taiwanese SMEs thereby expanding the applicability of existent internationalization theories developed primarily in the context of large Western MNCs to non-Western SMEs. This study finds three results that add new knowledge to the current SME literature and provides managerial implications. First, it finds a negative relationship between competitive actions and business unit integration. Second, it finds that in the optimally globalized IT industry there is no direct effect of business unit integration on performance. Third, it finds a direct effect of differential comparative advantage on performance.

1. Introduction

Research on internationalization and global strategies has been focused primarily on large Western MNCs (McDougall & Oviatt, 1996). In this regard, a dominant conceptualization for examining global strategy is the integration–responsiveness (I/R) framework that was first introduced by Prahalad (1975). The I/R framework suggests that participants in global markets develop competitive postures for both global integration and local responsiveness. These two dimensions represent two salient imperatives that simultaneously confront a business competing internationally and businesses can choose to emphasize one dimension over the other (Prahalad & Doz, 1987). The I/R framework has been further extended and applied by a number of authors including Doz (1976), Doz, Bartlett, and Prahalad (1981), and Roth and Morrison (1990). This framework has been widely used. Various aspects of the framework have been investigated including structural determinants (Birkinshaw, Hulland, & Morrison, 1995; Kobrin, 1991; Porter, 1986; Yip, 1995), operational flexibility (Bartlett & Ghoshal, 1989; Kogut, 1985), subsidiary mandates and initiative (Birkinshaw, 1996; Birkinshaw, 1997; Roth & Morrison, 1992), and strategic groups (Devinney, Midgley, & Venaik, 2000; Jarillo & Martinez, 1990; Johnson, 1995; Johnson, Lenn, & O'Neill, 1997; Johansson & Yip, 1994; Roth & Morrison, 1990; Taggart, 1998; Venaik, Midgley, & Devinney, 2004; Venaik, Midgley, & Devinney, 2005).

Similar to Birkinshaw et al. (1995), in this study, global integration is defined as "rationalization that may entail standardization of product, centralization of technological development, or the vertical or horizontal integration of manufacturing" (Kobrin, 1991, p. 18). In other words, it is "the centralized management of geographically dispersed activities on an ongoing basis" (Prahalad & Doz, 1987, p. 14). Several empirical studies based on large companies have underscored the importance of understanding global integration and its continued relevance (Birkinshaw et al., 1995; Johansson & Yip, 1994; Kobrin, 1991; Kobrin, 1994). The strong focus in prior research on large companies suggests that investigating the global integration strategies of internationalizing SMEs based outside the U.S. that compete in global industries might greatly enrich our understanding of the role of contextual factors on structural and competitive drivers (Harzing, 2000). Moreover industry-by-industry analysis can provide insights into the global integration strategies for an industry (Birkinshaw et al., 1995).

There are several similarities between the global integration strategies of non-Western SMEs and large Western MNCs. First, non-Western SMEs face similar international problems as those of large Western MNCs due to the highly competitive nature of today's global marketplace. This is especially true, in the high

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technology sector, given its highly volatile environment. Both non-Western SMEs and large Western MNCs are adopting new strategic postures to respond to markets at an increasingly faster pace by participating in collaborative arrangements and strategic alliances. Second, a consequence of internationalization is the rising convergence of control mechanisms in both non-Western SMEs and large Western MNCs from hierarchical, internal control toward lateral coordination between mutual dependent players (Dana, Etemad, & Wright, 1999).

On the other hand, there are several differences between the global integration strategies of non-Western SMEs and large Western MNCs. First, while relative cost conditions and the external environment continue to force SMEs to invest in other developing economies, there is a lower emphasis on creating synergies within their overseas subsidiaries compared with larger Western MNCs (Ramamurti & Singh, 2009). Second, non-Western SMEs tend to be smaller, have limited resources and face numerous constraints, such as limited finances, lack of knowledge and specialist executives to manage their international operations. Hence, ownership and internalization advantages may not be as important to non-Western SMEs as they are to larger Western MNCs that are able to exploit ownership advantages such as their surplus capital, market knowledge, and proprietary technologies (Yeh & Lin, 1999). Third, some researchers argue that non-Western SMEs competing in global markets, in contrast to large Western MNCs, de-integrate then reintegrate their value chains, or coordinate and configure these activities, to deliver more value to customers (Dana et al., 1999). Since attempts to apply theories developed for or based on large MNCs may lead to relatively awkward results when applied to SMEs (George, Wiklund, & Zahra, 2005; Ruzzier, Hisrich, & Antonic, 2006), this study applies an existing model developed for large Western MNCs to international Taiwanese SMEs, thereby contributing to the existing SMEs internationalization literature.

The purpose of this study is to replicate and extend Birkinshaw et al.'s (1995) study, which examined a part – rather than the whole – of the I/R framework by focusing only on aspects of global integration. According to Birkinshaw et al. (1995), both structural determinants and competitive factors define the relevant environment for strategy formulation within an industry. In the current study, we examine the global integration strategies of SMEs participating in the global IT industry in Taiwan, which is characterized by a rapidly changing landscape with high levels of environmental complexity (Salmela & Spil, 2002). This complexity significantly enhances organizational uncertainty which contributes to greater difficulty in strategic decision-making.

The Taiwanese IT industry was deemed suitable as a context to extend Birkinshaw et al.'s (1995) model for a number of reasons. First, the Taiwanese government's export promotion policy and its open economy have helped the growth of SMEs in the country. In the 1980s the Taiwanese government set up a national system with sophisticated infrastructure and cheap land, labor and capital costs aimed at facilitating the activities and growth of Taiwanese SMEs (Hsu & Chiang, 2001; Shyu & Chiu, 2002). As a result, SMEs now contribute in larger measure to the increased levels of business activity and employment in Taiwan.

Second, the IT industry is widely regarded as the most predominant manufacturing industry in Taiwan (Yang & Huang, 2005). In fact, Taiwan's IT industry spends relatively more money on R&D than other industries further evidencing the industry's pre-eminent status in the country (Tsai & Wang, 2004). Over the last decade, Taiwan has established itself as the world's largest supplier of computer monitors, circuit boards, power supplies, hardware accessories, and consumer electronics averaging double digit compounded annual growth (Luo & Chang, 2011). Almost 60% of the world's personal computers are either made in Taiwan or contain equipment made by Taiwanese companies. Taiwan is also the world's largest manufacturer and designer of notebook computers which are sold to U.S. and Japanese companies that re-sell them under their own logo (Ernst, 2000).

Finally, Taiwanese firms have developed the capability to provide services ranging across all value chain activities which has helped them cement their status as preferred original equipment manufacturing (OEM) suppliers (Ernst, 2000). Such a context provided by Taiwanese firms, is particularly salient for the current study because differences across countries are maximized when the advantages of multiple activities are linked across the value chain (Dunning, 1981; Porter, 1986).

Based on these arguments, this paper examines the global integration strategies of SMEs participating in Taiwan's global IT industry. In this regard, similar to Birkinshaw et al. (1995), it focuses *only* on environmental pressures relevant to global integration. In Birkinshaw et al.'s (1995) study, the researchers measured the drivers of global integration with four factors, i.e. (1) standardization of market demands, (2) competitive action within the industry, (3) economies of scale and (4) differences in comparative advantage across countries. They found all these factors to be significant in determining global integration in large firms in developed markets. This study aims expands the applicability of Birkinshaw et al.'s (1995) model to the global integration strategies of SMEs.

In summary, while there is considerable research on global integration strategies, most of this research focuses on large Western MNCSs competing in different global industries. Insufficient attention has been directed towards understanding the global integration strategies of internationalizing non-Western SMEs competing in global industries. Since internationalization activities are no longer the exclusive domain of large Western MNCs and given the special nature of country markets and strategic decisions it is important to assess whether the structural determinants and competitive pressures for global integration strategies in large Western MNCs are also relevant to non-Western SMEs competing in global industries. This study seeks to examine these issues by replicating Birkinshaw et al.'s (1995) study in a non-Western SME context. Our research model is shown in Fig. 1.

This paper is organized as follows. In the following section, we specify our key hypotheses. Next, we discuss our data and methodology. The final section concludes the paper with a discussion of the empirical findings and their implications in terms of managerial insights and theory development.

2. Hypothesis

This section examines global integration in a sample of Taiwanese SMEs competing in the global information technology (IT) industry and develops hypotheses relating to economies of scale, comparative advantage differences, standard market demands, and competitive actions. Next, we separately examine the impact of business unit integration, structural drivers, and competitive actions on performance.

2.1. Economies of scale

Yip (1995) found that subsidiary integration reduces unit costs through economies of scale (i.e. integration with other units enables a subsidiary to reduce its purchasing, marketing, and R&D costs). Birkinshaw et al.'s (1995) study also revealed a strong and positive relationship between economies of scale and global integration. Though this relationship was not supported in every industry, it suggested the importance of conducting a detailed industry analysis as one means of understanding the nature of