The moderated mediating effect of international diversification, technological capability, and market orientation on emerging market firms' new product performance

Jie Wu\textsuperscript{a}, Zhenzhong Ma\textsuperscript{b,c}, Zhiyang Liu\textsuperscript{d,\textsuperscript{e}}

\textsuperscript{a} University of Macau, Avenida da Universidade, Taipa, Macau
\textsuperscript{b} University of Windsor, Windsor, Ontario, Canada
\textsuperscript{c} Nanjing Audit University, Nanjing, China
\textsuperscript{d} University of Macau, Avenida da Universidade, Taipa, Macau
\textsuperscript{e} Shanghai University of Finance and Economics, China

\textbf{A R T I C L E   I N F O}

Keywords: International diversification
Technological capability
Market orientation
Product innovation
Emerging market multinational
China

\textbf{A B S T R A C T}

This study proposes a moderated mediating framework to describe the relationships among international diversification, technological capability, market orientation and emerging market multinational enterprises' new product performance. This mediating effect is more salient for firms entering more developed markets than those entering less developed markets. Analysis of a sample of Chinese multinationals' internationalization process supports these relationships.

\section{1. Introduction}

Studies of international diversification and organizational learning have suggested that international diversification enhances product innovation by exposing a firm to diverse customer requirements (Matarazzo & Resciniti, 2013; Zahra, Ireland, & Hitt, 2000). Notably absent in the literature is a basic but puzzling question: Does international diversification relate to new product performance through technological capability? This question has received little attention, perhaps because scholars investigating the topic have mainly focused on multinational enterprises (MNEs) from developed markets and assumed that all MNEs possess strong technological capabilities and can develop new solutions to satisfy different customer requirements (Petison, Thongthou, & Lekmoung, 2012). But recent studies have questioned this assumption because they have found many MNEs from emerging markets (EMNEs) have technological capability which is actually weak compared with their counterparts from developed markets (Piperopoulos, Wu, & Wang, 2017; Wu & Park, 2017). In order to satisfy diverse requirements of international customers and succeed in global markets, EMNEs need an ability to develop new products that solve those customers’ problems. So academic and practical considerations call for an explanation of how EMNEs international diversification relates to their technological capabilities and innovation performance.

A second problem relates to the relationships among international diversification, technological capability, innovation performance and market orientation. Market orientation in this context refers the state of economic development of the markets to which an EMNE orients its products. Some, for example, aim to serve highly-developed markets while others aim at less developed markets. Such orientation is important for two reasons. First, different market orientations usually have different requirements for product configuration and different customer needs. Customers in less-developed markets tend to prefer inexpensive products with acceptable quality, whereas customers in developed markets have higher expectations and will pay higher prices (Byeong-Joon, 2006; Ozier & Dayan, 2015). Different markets also have different levels of infrastructure development. More-developed markets have better infrastructure for developing technology (e.g., high-speed Internet) which less-developed markets tend to lack. Such differences imply that the relationship between international diversification and technological innovation may be more salient for serving more-developed markets.

This study aims to address these questions. Drawing on a conjunction of the international diversification and organizational learning perspectives, this study proposes a moderated mediation model to explain the complex relationships among EMNEs international diversification, technological capability, market orientation and innovation performance. The hypothesis is that international diversification improves an EMNEs innovation performance by promoting organizational
learning and that strong technological capability enhances this process, which leads to better new product performance. The EMNEs market orientation further moderates this process. That is, the impact of technological capability on the relationship between international diversification and innovation performance is more salient when an EMNE orients itself towards more-developed markets, and is less salient when less-developed markets are an EMNE’s target, as illustrated in Fig. 1.

This study will contribute to the existing literature in several aspects. First, this study is one of the few studies that have tried to analyze the complex relationships among international diversification, technological capability, market orientation, and EMNEs new product performance. Second, even fewer studies have explored these complex relationships for EMNEs within an integrated framework. This study addresses this limitation by exploring the existence of a moderated mediating relationship explaining the interplay of EMNEs international diversification, technological capability, and market orientation in promoting new product performance. Specifically, the hypothesis is that international diversification helps EMNEs strengthen their technological capability, which improves their innovation performance. Technological capability thus mediates the relationship between international diversification and EMNEs innovation performance. Moreover, this relationship is contingent on an EMNEs market orientation. The mediating effect of technological capability is more salient for firms aiming more-developed markets.

This study tests these relationships using data from Chinese MNEs. In recent decades, Chinese firms have been very active in expanding globally (Buckley et al., 2007) seeking to acquire advanced technology and management skills (Child & Rodrigues, 2005; Ma, Lee, & Chen, 2009). Different Chinese firms have adopted different market orientations, some towards highly-developed markets and others towards developing economies. These characteristics make Chinese MNEs particularly suitable for testing the hypothesized relationships.

2. Theoretical development and hypotheses

2.1. Conceptual framework

International diversification refers to the extent to which a firm expands to multiple foreign countries with diverse market environments (Wu & Park, 2017). New product performance refers to the performance achieved by any novel product, service, or production process that departs significantly from prior product, service, or production process architectures (Calantone, Di Benedetto, & Rubera, 2012, 2018; McKinley, Latham, & Braun, 2014). While scholarly work on international diversification has generally concluded that international diversification can promote new product performance (e.g., Hitt, Hoskisson, & Kim, 1997; Zahra et al., 2000), relatively few studies have devoted to identifying the underlying mechanisms explaining how international diversification affects new product performance for firms from recently-industrialized emerging economies.

Research has shown that building technological capability is central to the success of new product development and introduction in international markets (Hitt et al., 1997), especially for EMNEs aiming to gain access to new technology (Luo & Tung, 2007). Insights from organizational learning theory suggest that international diversification effectively promotes an EMNE’s technological capabilities, which in turn has a positive effect on their new product performance. The organizational learning theory also suggests that market choice has important implications for EMNEs’ organizational learning. Successful capability-building depends on the characteristics of foreign markets. More-developed markets provide more learning opportunities for technology acquisition, but such learning opportunities are less abundant in less-developed foreign markets (Wu, 2013). Thus this study proposes that EMNEs’ market orientation moderates the mediating effect of technological capability on the relationship between international diversification and new product performance.

2.2. International diversification and new product performance

Operating in diverse environments exposes a firm to a variety of knowledge and ideas and adds new elements to its knowledge pool, strengthening its knowledge base, and its repertoire of technology (Barkema & Vermeulen, 1998; Hitt et al., 1997). New product development requires diverse inputs. International diversification provides access to new and diverse ideas from a variety of market and cultural perspectives (Hitt et al., 1997: 774). Katila (2002) and March (1991) have expressed similar opinions. Walsh (1995), Carlile (2004) and Smith, Collins, and Clark (2005) have suggested that experience in a variety of environments tends to equip managers with different ways of doing things, and that diversity enriches a firm’s knowledge structure, which can transform into specific product designs. This is especially true for EMNEs that expand internationally, which often aim at seeking knowledge, advanced proprietary technology, immobile strategic assets, and other technological capabilities (Buckley et al., 2007).

Operating in diverse environments also helps an EMNE become more aware of new opportunities in its foreign markets. Exposure to and direct involvement with customers with distinct requirements in multiple countries is an important means of “learning by doing”, which can promote a deeper understanding of the market and industry and can thus induce the development of new applications for existing technologies (Barkema & Vermeulen, 1998; Zahra et al., 2000). Exposure to customers in multiple countries can further trigger the re-development of old concepts that have been shelved in the industry, often for a long time (Katila, 2002: 1000). Therefore, exposure to diverse market environments and customers can enhance new product development, and consequently, EMNEs’ international diversification positively affects their new product performance.
دریافت فوری متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات