VENTURING FROM EMERGING ECONOMIES

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[Abstract]

What drives new ventures to internationalize from emerging economies to developed economies? To answer this underexplored question, we bring together theory at the intersection of international entrepreneurship and strategy in emerging economies. Focusing on *intangible* resources, we theorize that international expansions of new ventures from emerging economies are driven by their desire to enhance domestic reputation, to exploit their stocks of prior knowledge, and to explore benefits of incoming knowledge flows. We find support for our hypotheses using a cross-country sample of new ventures from two major emerging economies—China and India.

Keywords: international entrepreneurship, emerging economies, new ventures, intangible resources, stocks and flows of knowledge, China, India

INTRODUCTION

Internationalization of new ventures generates significant research in entrepreneurship (Cumming, Sapienza, Siegel, and Wright, 2009; McDougall and Oviatt, 2000). Similarly, strategy research on emerging economies (EE) is experiencing tremendous growth (Hoskisson, Wright, Filatotchev, and Peng, 2013; Wright, Filatotchev, Hoskisson, and Peng, 2005). However, Yamakawa, Peng, and Deeds (2008) noted that the *intersection* of the literature in international entrepreneurship and strategic management of new ventures from EE has received limited attention. Although most EE-based ventures stay at home and some choose to enter other EE markets, a nontrivial proportion of new ventures from EE decide to internationalize into developed economies (DE). While DE markets are potentially rewarding, international expansion of new ventures from EE to DE is also fraught with risks, some of which may threaten their survival (Jones and Coviello, 2005; Sapienza, Autio, George, and Zahra, 2006). In this study, we pick up where Yamakawa *et al.* (2008) left off, and endeavor to understand both theoretically and empirically a crucial question: Why do some new ventures from EE internationalize to DE while others chose to enter other EE?

Surprisingly, despite the rapid expansion of both international entrepreneurship research and strategy literature focusing on EE, this question remains underexplored. On the one hand, international entrepreneurship research has focused new ventures based in DE (Knight and Cavusgil, 2004; McDougall and Oviatt, 2000) and has largely ignored internationalization decisions that new ventures in EE face (Wright *et al.,* 2005; Yamakawa *et al.,* 2008). On the other hand, foreign entrants into EE and domestic competitors within EE remain at the heart of strategy research on EE. Here the analysis tends to deal with relatively large, established, and publically visible corporations (Meyer, Estrin, Bhaumik, and Peng, 2009; Peng, 2012; Sun, Peng, Ren, and Yan, 2012) to the exclusion of newer and smaller firms based in EE that seek to internationalize

(Cardoza and Fornes, 2011; Yiu, Lau, and Bruton, 2007). Consequently, theoretical explanations of what drives new ventures in EE to take the plunge and internationalize into DE remain elusive (Yamakawa *et al.*, 2008). This is a significant omission. Entrepreneurial start-ups in EE face a different set of internationalization challenges and potential rewards from those confronting either established firms from EE or similar ventures from DE. Thus, they need to be understood on their own terms.

We propose that new ventures in EE see internationalization into DE as a two-pronged opportunity: (1) to enhance reputation and (2) to leverage prior knowledge stocks as well as source new knowledge flows. Our approach is based on a resources and capabilities argument where reputation and knowledge are two intangible resources that firms can control. First, as an intangible resource, reputation creates access to other resources critical for firm growth and survival (Zimmerman and Zeitz, 2002). A strong positive reputation among key stakeholders has shown to be critical to the growth and survival of new ventures (Rindova and Petkova, 2005). Second, knowledge, also an intangible resource (Mitchell, Smith, Seawright, and Morse, 2000), is a major determinant of new capabilities and a source of competitive advantage (Canals, 2000; DeCarolis and Deeds, 1999). Thus, we propose that a new venture's decision to internationalize stems from the desire to enhance reputational resources, to exploit existing stocks of knowledge, and to benefit from inflows of knowledge locally unavailable.

Our article builds on and extends prior work. Yamakawa *et al.* (2008), the most prominent theoretical companion to this paper, used a tripod of theoretical perspectives (industry-based, resource-based, and institution-based views) to build a broad conceptual framework. Yamakawa *et al.* (2008) targeted a theoretical gap in the literature and used a qualitative theory-building approach to develop propositions that explore the underlying logic behind internationalization of new ventures from EE to DE. However, Yamakawa *et al*. (2008) did not present empirical

evidence to substantiate their claims. Here we go deeper. To show the effect of intangible resources (reputation and knowledge) on the decision to internationalize, we combine the learning imperative (from the resource-based view) with the quest for legitimacy (from the institution-based view). In demonstrating the significance of intangible resources to international expansion decisions, we extend research on reputation (Rindova and Petkova, 2005) and knowledge (Lu, Zhou, Bruton, and Li, 2010; Su, Tsang, and Peng, 2009) to the entrepreneurial context in EE.

To the best of our knowledge, our study represents the first attempt to test a theoretical model that explains why new ventures internationalize from EE to DE and not to other EE. Prior studies have focused on the timing of internationalization, the process of internationalization, and the outcomes of internationalization, but largely in new ventures from DE (Bruneel, Yli-Renko, and Clarysse, 2010; Fernhaber and Li, 2010). Increasingly, research in entrepreneurship tries to explain internationalization from EE (Khavul, Perez-Nordtvedt, and Wood 2010; Wood, Khavul, Perez-Nordtvedt, Prakhya, Velarde, and Zheng, 2011; Zhou, Barnes, and Lu, 2010), but the importance of intangible resources in the decision to internationalize from EE to DE remains an open empirical question. Thus, we extend prior empirical work on entrepreneurial ventures in general and from EE in particular. Using primary survey data from China and India, two major EE, we also stretch the typical geographic reach of research on new venture internationalization. In sum, we believe our work contributes to an emerging and dynamic area of scholarship on new ventures from EE, which is of high importance to entrepreneurship research (DeClercq, Sapienza, Yavuz, and Zhou, 2012; Jones, Coviello, and Tang, 2011).

THEORY AND HYPOTHESIS DEVELOPMENT

Intangible resources as a strategic construct for venturing from EE to DE

The resources and capabilities perspective sways great influence across several domains in management (Lockett, O'Shea, and Wright, 2008). In the context of internationalization, the literature suggests that firms go abroad to exploit tangible resources that are important sources of advantage for established firms but ones new ventures generally lack (Ahlstrom, Young, Chan, and Bruton, 2004; Brouthers, O'Donnell, and Hadjimarcou, 2005; Meyer *et al.*, 2009). Although new ventures are short on tangible resources, they thrive on the increasingly significant intangible resources (Canals, 2000; Peng, 2001).

Perhaps, nowhere is this phenomenon more pronounced than in the context of new ventures in EE. To overcome their lack of access to critical resources and their latecomer disadvantage in the global market, new ventures in EE engage in intangible resourcefulness as they internationalize. That is, they have the capability to do more with less (Mitchell *et al.*, 2000; Peng, 2001; Tang and Tang, 2012). When it comes to reputation and knowledge, new ventures from EE leverage existing stocks of intangible resources and use multiple approaches to expand and enhance their flows (DeClercq *et al.,* 2012). Consequently, we argue that new ventures from EE will internationalize to DE in order to enhance their reputation, leverage their existing stocks of knowledge, and tap into flows of new knowledge from international markets. Moreover, when it comes to choosing between DE and EE, the differences in the firms' stocks of intangible resources will predict their behavior. Specifically, new ventures from EE will enter foreign markets (especially DE markets) when they perceive an opportunity to establish reputation, to leverage what they already know (from their stocks of prior knowledge), and to tap new knowledge flows that are unavailable in their domestic market. Thus, intangible resources may allow new ventures to overcome a myriad of competitive disadvantages (Peng, 2012).

Internationalization as an opportunity to enhance domestic reputation

Reputation is best understood as an intangible resource built and sustained on "the beliefs of various stakeholders regarding the likelihood that the firm will deliver value along key dimensions of performance" (Rindova, Pollock, and Hayward, 2006: 54). A firm's reputation is a function of its prominence as perceived by stakeholders (Rindova and Petkova, 2005) and is built through its behaviors, accomplishments, and signals (Reuber and Fischer, 2009).

A new venture generally lacks a history of accomplishments and therefore builds its reputation via symbolic actions (Petkova, Rindova, and Gupta, 2008). Symbolic actions are intended to "attract stakeholders' attention to the venture and its resources, and to indicate how the [new venture] will create value for them" (Petkova *et al.,* 2008: 323). Symbolic actions include seeking association with high-prestige actors (such as high-status individuals, companies, and locations) in their environment seeking transference of reputation via a "halo effect" to enhance the venture's reputation. Indeed, prior research established that operating in high profile and credible locations (Stuart, Hoang, and Hybels, 1999), such as those in DE, could enhance the reputation of a firm from EE (Bell, Moore, and Al-Shammari, 2008).

A new venture's reputation among domestic constituents such as domestic consumers, investors, regulators, and government officials provides it with key resources. Having developed a strong, positive reputation in the eyes of such domestic constituents, these ventures can exploit their established reputation to enter other markets. Ventures that perceive their domestic reputation as well established are less likely to foresee reputational benefits from entering DE.

In contrast, ventures with low domestic reputation may seek to enhance their domestic reputation and may therefore perceive entering DE as providing greater benefits because of the added reputational benefits it brings to the venture. Entry into EE is less likely to confer the same reputational benefits for the new venture. When new ventures from EE choose to enter DE, they can signal "high quality and credibility to important resource providers, including home country

governments, investors, and consumers" (Yamakawa *et al.,* 2008: 72). Such signals carry multiple messages to a firm's diverse constituents. For example, established domestic firms may interpret the new venture as not a direct domestic competitor and not a threat. Local officials may appreciate the additional jobs created due to increased demand from DE customers. Home country investors may perceive their investment in the new venture as more attractive than others in their portfolio. Once the new venture is successful in DE, domestic customers may bestow higher value on the brand of the new venture. In other words, new ventures in EE that lack a strong, positive domestic reputation have a higher incentive to enter DE (as opposed to EE) than firms with established domestic reputations. Accordingly,

Hypothesis 1: New ventures from EE lacking a strong, positive domestic reputation are more likely to enter DE (as opposed to EE) when they internationalize.

Internationalization as an opportunity to leverage prior knowledge

Stocks of international market knowledge

The knowledge stocks of founders constitute a valuable new venture resource that affects their internationalization decisions (Mitchell *et al.*, 2000; Khavul, Prater, and Swafford, 2012). Because individuals and organizations vary in how they value resources and new knowledge combinations, internationalization, like other entrepreneurial actions, depends on the decision makers. Indeed, empirical evidence suggests that the perceptions of entrepreneurs influence the direction and rate of the growth of new ventures (Kor, Mahoney, and Michael, 2007) while their characteristics (including their resources and capabilities) predict the behaviors and performance of their start-ups (Bruderl, Preisendorfer, and Ziegler, 1992; Chandler and Jensen, 1992).

Because many (but not all) new ventures in EE are started by entrepreneurs with an outward orientation and global ambitions, internationalization is often a fundamental part of early strategy (Filatotchev, Liu, Buck, and Wright, 2009; Lu *et al.*, 2010). International expansion into

DE may be seen as an appropriate strategy if it stems from the founders' knowledge and understanding of DE (Saxenian, 2006). Such understanding typically originates from prior educational and/or work experiences of the founders. International education and experience provides founders with knowledge of how DE operate, how to do business internationally, and how to develop networks that extend beyond the boundaries of their home country (Saxenian, 2006). For example, overseas experiences impact the strategic decisions of returnee entrepreneurs in China, and make the ventures they start more innovative (Liu, Wright, Filatotchev, Dai, and Lu, 2010; Wright, Liu, Buck, and Filatotchev, 2008). While obtaining their education and work experience abroad, the founders become embedded in social networks that increase their perception of the importance and desirability of expanding internationally and competing globally (Johanson and Vahlne, 2009). Conversely, new venture founders with less international exposure are more comfortable focusing on the domestic market (Filatotchev *et al.*, 2009).

Expansion into DE provides access to larger markets, more valuable knowledge, and stronger reputation benefits (Porter, 1990), but it is also generally perceived as risky compared to entering another EE. However, if managed well, the risks of entering DE may actually be *lower* than generally perceived (Brouthers *et al.,* 2005). Since DE have lower risks of expropriation and corruption, venturing into DE may frequently be a lower risk option than entering EE. Moreover, in DE as opposed to EE the low cost advantage that new ventures from EE bring has a higher probability to be sustained over time. Seeing DE as less risky runs counter to general perceptions, but firms whose founders have a stock of international market knowledge—of DE in particular (Saxenian, 2006)—may be able to accurately gauge the risk differential between the two internationalization options. When grounded in networks and experience, stocks of market knowledge can enhance such founders' ability to mitigate risk in DE. Hence we expect that founders with greater international market knowledge are more likely to recognize that expanding

from EE to DE has both greater potential benefits and lower risks relative to expansion into another EE. In sum:

Hypothesis 2: New ventures from EE with greater stocks of international market knowledge are more likely to enter DE (as opposed to EE) when they internationalize.

Stocks of technological knowledge

We argue that stocks of technological knowledge are important in distinguishing those new ventures from EE that enter DE as opposed to those that enter other EE or those that stay at home. Technological knowledge is embedded in intellectual, physical, and human capital of the firm. New ventures differ in their level of technological knowledge. Some new ventures have significant proprietary technologies and some a large number of managers with technical training. Firms with proprietary technologies and with technically trained managers tend to have larger stocks of technological knowledge.

Technologically intensive new ventures are more likely to internationalize—so much so that "rapid internationalization has repeatedly been found to occur among high technology firms" (Jones and Coviello, 2005: 291). Moreover, technology-intensive new ventures are more likely to be born-global—that is, internationalize from inception (Knight and Cavusgil, 2004). The high costs of accumulating stocks of technological knowledge that such new ventures shoulder drives them to internationalize and do so early compared to their less technologically intensive counterparts. Extending this line of research, we posit that new ventures with greater stocks of technological knowledge (i.e., higher technological intensity) are more likely to enter DE as opposed to EE because the substantially higher development costs require larger and more munificent DE markets to earn returns that amortize prior investment (Bruton, Dess, and Janney, 2007; Bruton and Rubanik, 2002).

At this juncture, it is important to clarify that the EE-based new ventures, which have invested in developing technological knowledge and are entering DE to exploit that knowledge, do not necessarily have to have a technological advantage in DE to benefit from entering DE. In fact, EE-based ventures may enter as low-cost providers, but a technological stock of knowledge provides the baseline technological capabilities to exploit when entering the market. Accordingly,

Hypothesis 3: New ventures from EE with greater stocks of technological knowledge are more likely to enter DE (as opposed to EE) when they internationalize.

Internationalization as an opportunity to source new knowledge flows

In addition to the *stocks* of prior knowledge, the *flows* of new knowledge also help firms to develop new capabilities and a knowledge-based advantage over competitors (DeCarolis and Deeds, 1999; Saxenian, 2006). Consequently, we suggest here that expected *flows* of new knowledge from internationalization and the opportunity to acquire resources and capabilities that they represent increase the likelihood that new ventures from EE will enter DE (Saxenian, 2006).[1]

Learning is central to internationalization (DeClercq *et al.,* 2012). DE offer new ventures from EE greater market potential, lower levels of institutional or country risks, and enhanced learning opportunities. Indeed, some scholars argue that firms from EE internationalize primarily to learn through strategic acquisitions of resources (Mathews 2006) available in technologically sophisticated DE markets. In addition, empirical evidence suggests that new ventures build capabilities in order to learn from internationalization (Elango and Pattnaik, 2007). Moreover, new ventures without market power at home benefit from learning from foreign partners and

[1] Our argument that a central part of new ventures' internationalization from EE to DE is an emphasis on the sourcing of new knowledge is consistent with an entrepreneurial orientation centered on exploration (Herron and Sapienza, 1992) as opposed to exploitation of existing advantages (Wright *et al.*, 2005). Firms often use exploration to develop absorptive capacity (Zahra and George, 2002), and to expand the diversity and novelty of their knowledge base (Chetty, Eriksson, and Lindbergh, 2006). Knowledge and search capabilities in ventures are important to successful new product development (Rothaermel and Deeds, 2004).

international customers (Khavul, Peterson, Mullens, and Rasheed, 2010; Peng, 2012). Internationalization, particularly to DE, exposes new ventures to greater learning opportunities through synchronization of activities (Khavul *et al.*, 2010b). In contrast, entering EE may provide some respite from competitors in DE, but offer relatively little opportunity for organizational learning (Yamakawa *et al.*, 2008).

New ventures in EE can use strategic alliances to tap into the knowledge bases of world-class DE regional clusters, such as Silicon Valley (Coombs, Mudambi, and Deeds, 2006). As ventures from EE begin to search for novel information and knowledge useful in their innovations and new product development processes entering into DE becomes more attractive. Expansion into DE positions an EE-based new venture to benefit from potentially valuable insights developed from the rare interaction of knowledge flows from their home country with the new knowledge flow they acquire in DE. Thus, the greater the new venture's desire to seek the benefits of new knowledge inflows, the more likely they are to invest in DE (as opposed to EE) to develop organizational capabilities and to improve their competitiveness (Autio, Sapienza, and Almeida, 2000; Li, Li, and Dalgic 2004).

Furthermore, beyond the greater learning potential in DE, new ventures from EE can benefit from the more technologically advanced DE markets relative to EE markets (Yamakawa *et al.*, 2008). DE markets are characterized by more sophisticated customers, more patents, more technological intensity, and larger research investments, all of which make DE more technologically demanding. Meeting the technological demands of DE offers opportunities to build the ventures' knowledge base, capabilities, and competitive position in their home market (Porter, 1990). Some internationalization activities, especially in the R&D area, are driven by an innovation-seeking imperative (Frost, Birkinshaw, and Ensign, 2002). Specifically, some firms may be interested in using R&D-related internationalization as a means for gaining access to

technological innovations resident in host countries (Peng and Wang, 2000). Especially in technology-intensive industries, firms often seek markets with advanced technologies, which are more likely the markets in DE as opposed to EE (Spence, 2003). Thus,

Hypothesis 4: New ventures from EE looking for an opportunity to source new knowledge flows are more likely to enter DE (as opposed to EE) when they internationalize.

DATA AND METHOD

Data collection and sample

We test our hypotheses on primary data collected directly from new ventures in China and India. Our empirical context includes two of the leading EE in the world. Each country has implemented aggressive liberalization and economic reform in the last decade, and has become important in the global economy (Hoskisson *et al.*, 2013; Wright *et al.*, 2005). In addition to their prominence, the degree of economic development, the level of international trade and outward FDI, and the extent of investment in the development of technological capabilities relative to other countries in their regions determined our selection of China and India.

The entrepreneurial venture is the unit of our analysis. To be included in the sample, firms had to be less than ten years old and had to have international sales at the time of the survey (Burgel and Murray, 2000; Khavul, Benson, and Datta, 2010). The average firm in the sample was 4.5 years old and internationalized 1.7 years after founding. Following Aulakh, Kotabe, and Teegen (2000), Lane, Salk, and Lyles (2001), and Meyer *et al.* (2009), we undertook a face-to-face structured survey to collect primary data. Published and archival data on entrepreneurial firms in EE are often unavailable, outdated, or inaccurate (Hitt, Boyd, and Li, 2004). Face-to-face data collection requires a high level of commitment and cost, yet it pays off in enhanced validity of data. In the EE context, face-to-face meetings are considered the most appropriate

methodology to explore complex issues (Hitt *et al.*, 2004; Khavul *et al.,* 2010c; Li, Chen, Liu, and Peng, 2013).

Our structured face-to-face interviews followed a uniform questionnaire that was developed specifically for this research. The survey was carried out in 2002-2003, and captures internationalization of entrepreneurial firms in the previous decade. This observation window is significant in that it represents the period of increasing globalization, during which a wave of entrepreneurial firms ventured out from EE. In India, the survey instrument was administered in English. In China, the instrument was translated into Chinese, which was then back-translated into English. Experts in the field were used to ensure accuracy, comprehensibility, and comparability. Our sample of new ventures comes from major metropolitan areas in China (Beijing and Shanghai) and India (Ahmedabad, Bangalore, Calcutta, Chennai, Hyderabad, Mumbai, and New Delhi). In both countries we used multiple established government and nongovernment sources to construct the relevant sampling frame. For example, in China we relied on the Foreign Trade Commission and the Ministry of Commerce and in India, the Exporters Association Directory. Each of the source lists was verified and cross-referenced so that an appropriate sampling frame could emerge. This was a particularly important step since the firms of interest to our study had to have international sales at the time of the survey, and had to be less than ten years old. Likewise, while constructing the sampling frame, we were mindful to secure correct contact information so that we could directly tap the most informed individuals in the venture. In entrepreneurial ventures, this is usually limited to between one and three top management team members. In the end, the survey respondents were primarily CEOs/founders or key top managers who have the appropriate specific knowledge of their firms to address the questions. After accounting for missing values, we have a total sample of 170 new ventures: 82 from China and 88 from India. Response rates to our surveys were 16.5% in China and 24.7% in

India. Both are within acceptable norms for surveys in EE (Aulakh *et al.*, 2000). Furthermore, since there is no statistically significant difference between early and late responders to our survey in terms of their age at the time of the survey, age at which they launched products, age at which they internationalized, and time they have spent in international markets, we concluded that non-response bias is not a significant concern in this study (Armstrong and Overton, 1977).

Measures

Internationalization from EE to DE. We operationalize the dependent variable as a binary that captures whether (during its first foreign entry) a new venture from EE internationalized to DE (coded as 1) or to EE (coded as 0). Our goal in selecting this dependent variable was to focus on the choices that entrepreneurial firms from EE make in their initial international entry. In order to distinguish DE from EE, we rely on the International Monetary Fund's (IMF, 2009) definition of 33 economies as DE. As a robustness check we also ran the regressions using the classification scheme proposed by Hoskisson, Eden, Lau, and Wright (2000) and results were virtually identical.

Domestic reputation. We capture reputation in terms of the domestic reputation of firms. We asked, "Why do your most important domestic customers prefer to buy from you?" The response format was a five-point Likert scale (1= not important, 5 = absolutely critical). The items included: Company image, reputation for quality, product conformance, product reliability, product durability, and brand. The scale has a Cronbach's alpha of .86 and loads on one factor.

Stocks of prior knowledge. We examine the impact of two types of prior knowledge stocks: *international market knowledge* and *technological knowledge*. We capture *international market knowledge* (Lu *et al.*, 2010) as the experience that founders acquired abroad before starting the venture (Filatotchev *et al.*, 2009; Khavul *et al.*, 2010a, 2012; Liu *et al.*, 2010). We have two measures of the constructs. The first measure accounts for the number of founders who studied abroad while the second measures the accumulated number of years that the founding

team worked abroad. Both are continuous variables. The second stock of knowledge is *technological.* We account for the stock of technological knowledge with two variables, proprietary technology at founding (coded 1 = present, 0 = otherwise) and CEO education (1 = technical, 0 = otherwise) that predict entry from EE to DE. These two variables capture intangible knowledge embedded in the firm.

Flows of new knowledge. We capture flows of new knowledge in terms of three measures. First, the proportion of the firm's employees that are in R&D. We use this measure as an indicator that reflects the degree of new ventures' embeddedness in knowledge-seeking, learning, and capability-building behaviors. Second, we capture the degree of the venture's international market-knowledge search based on the number of employees it had stationed abroad at the end of its first year after founding (Khavul *et al.,* 2010a; Vance and Paik, 2005). Employees aboard serve as "listening posts" that collect knowledge about customers and competitors, and are particularly important when the firm is investing in R&D at the same time (Mudambi, 2002). The number of employees abroad is a continuous measure. Finally, we record whether the new venture pursues exporting through direct sales rather than intermediation. Direct selling abroad, which is dichotomous (1 = direct selling, 0 = intermediation), puts new ventures directly in touch with potential customers and directly in the path of new knowledge flows about customer preferences and market dynamics (Peng, Zhou, and York, 2006). Taken together, the variables provide channels through which the firm accesses the *flows* of new knowledge.

Control variables. We control for seven major factors. First, we control for country effects (Mayrhofer, 2004) with a dummy variable where 1 = China and 0 = India. Second, we account for the industrial category of the firm. The industry variable is a dummy coded into six categories (information and communication technology [ICT] hardware, ICT services, software products, biomedical, machinery and equipment, and traditional chemicals). The omitted category is

traditional chemicals, which serves as a comparison for interpreting the results. Third, we control for the size of the firm in terms of the number of employees at the end of the first year after founding. This variable is log transformed. Fourth, given the complexity associated with achieving good reputation for service in comparison for products, we categorize the firms into service versus non-service with service equal to 1 (Wood *et al.*, 2011). Fifth, we capture speed of internationalization as the age of the venture at international entry (Zahra and George, 2002). This variable is also log transformed. Sixth, to account for the heterogeneous performance of firms prior to entry, we capture whether firms had profits at the time of entry. Finally, we control for firms with no domestic sales.

Analytic strategy

Our dependent variable is a dichotomous variable. Of the 170 first-time foreign market entries, we capture 120 entrepreneurial firms that internationalized from EE to enter DE and 50 others that entered other EE. We use hierarchical skewed logistic (scobit) regression analysis (StataCorp, 2009: 1675-1686) to estimate the likelihood that a new venture would internationalize from EE to DE. Hierarchical regression models enable us to examine the added explanatory variance of each independent variable by controlling the effects of other main effects. Skewed logistic regression is an unconstrained version of a logistic regression model. It relaxes the assumption that "the effect of regressors on the probability of success [in our case entry into DE] is largest when the probability is .5" (StataCorp, 2009: 1681). This "tends to exaggerate the effects of changes to independent variables for those individuals having the probability closest to one-half of choosing either of the two alternatives" (Nagler, 1994: 231). The model was developed in political science (Nagler, 1994) and is also used in education, labor economics, and health. To be sure, along with scobit, we have also estimated logit and probit models. The direction, magnitude, and significance of all the coefficients as well as the fit statistics across the three methods of

estimation are qualitatively similar. There are no material differences in the support for our hypotheses based on the choice of estimation procedure. However, tests of model fit comparisons between the logistic and scobit models indicate that scobit is a more appropriate choice (natural log of alpha = 16.68; $p < .001$). Hence, following the estimation guidelines, we report estimates from the scobit model. The interpretation of the results is consistent with those of other logistic models.

RESULTS

Table 1 presents descriptive statistics. The correlations between independent variables are modest and multicollinearity is not in evidence. Individual variance inflation factors (VIFs) greater than 10 and the average greater than 6 are generally seen as indicative of severe multicollinearity (Kleinbaum, Kupper, and Muller, 1988). The mean VIF is 3.12 and no individual VIF exceeds 10. This suggests little problem with multicollinearity in our model.

[Insert Table 1 about here]

Table 1 provides some insights into our sample. The average firm had 30 employees and most (60%) reported profits at the time of internationalization and a minority (12%) had no domestic sales. The majority of the ventures in our sample provided products to their customers, and 26% provided services. Twenty-four percent of the ventures had at least one founder who received education abroad, and the founding team had a mean of seven years of work experience abroad. Sixty-six percent of the firms were exporting directly, and the average firm had at least one employee based abroad one year after founding. Where capability-building activities are concerned, on average, 15% of the employees in the sampled firms were engaged in R&D. In terms of technology orientation, 61% had CEOs with technical (as opposed to management or financial) education, and 45% of the firms had proprietary technology at start-up. Finally, firms

were distributed across six industrial categories: 11% ICT hardware, 28% ICT services, 5% software services, 18% biomedical, 31% machinery and equipment, and 7% traditional chemicals.

Table 2 presents the hierarchical regression estimates of the skewed logistic (scobit) regression model predicting the internationalization of new ventures from EE to DE. Model 1 is the base model that contains only the control variables. Model 2a adds the coefficients and standard errors for the main variables. Model 2b offers the odds ratios and their standard errors for all the variables in the model. Fit statistics indicate that there is a significant reduction in the log pseudolikelihood between Model 1 (the control model) and Model 2a (the fully specified model). The fully specified model has a pseudo R^2 of approximately 0.36 in a logistic model.

[Insert Table 2 about here]

Hypothesis 1 predicts that new ventures from EE lacking a strong, positive domestic reputation will be more motivated to enter DE (as opposed to EE) when they internationalize. Our results strongly support this hypothesis. We find that domestic reputation is negatively associated with entry into DE. This implies that the lower a firm's domestic reputation the more likely it will enter DE (B = -.373; p < .05). The odds-ratio for the reputation variable (0.689) is substantial, indicating that a one unit increase or decrease in our reputation measure increases or decreases the likelihood of entering DE by 69%.

Hypothesis 2 predicts that new ventures from EE with greater international market knowledge are more likely to enter DE. As Models 2a and 2b show, this hypothesis is supported with the two variables we used to capture the stocks of international market knowledge embedded in the firm. The more founders the firm had with education abroad, the more likely it is for the firm to enter DE (B = .242; p < .01). For every additional founder with education abroad, the firm is 27.4% more likely to enter DE rather than EE. The more years that founders spent working abroad, the more likely the firm is to enter DE (B = .022; p < .05). For every additional year of

experience that the founding team accrued working abroad, the firm is 2.2% more likely to enter DE rather than EE. These results strongly suggest that international market knowledge is a significant and meaningful predictor of whether an entrepreneurial firm from EE will enter DE over other EE.

Hypothesis 3 predicts that new ventures with stocks of technological knowledge are more likely to enter DE than EE. The results are nuanced. Proprietary technology at start-up is a significant predictor of entry into EE and *not* DE (B = -.565; $p < .10$). However, new ventures that are led by CEOs with technical education as opposed to those that are led by CEOs with financial or managerial education are nearly 2.7 times more likely to enter DE (B = 1.007; $p < .01$) rather than EE. Although proprietary technology at start up tells a different story, the educational background of the CEO does predict the choice of the new venture to enter DE and provides strong support for Hypothesis 3.

Hypothesis 4 predicts that new ventures from EE looking for an opportunity to source new knowledge flows are more likely to enter DE than EE when they internationalize. This hypothesis is supported. Specifically, we find that firms with a larger proportion of employees dedicated to R&D are more likely to enter DE (B = .035; $p < .01$). For every additional percent of employees that are engaged in R&D, the likelihood of entry into DE over EE goes up by 3.5%. Likewise, firms with more employees stationed abroad one year after founding are more likely to enter DE (B = .137; $p < .05$). For every additional employee abroad, the likelihood of entering DE over EE goes up 14.7%. Finally, a firm is 70% more likely to enter DE if it uses direct selling compared to intermediation (B = .534; $p < .05$). Each of these represents a channel through which new knowledge from DE flows to the firm.

DISCUSSION

Contributions

Extending and propelling Yamakawa *et al.* (2008) to a more rigorous hypothesis-testing phase, this study enhances our understanding of how intangible resources affect the internationalization choices of EE-based new ventures as they decide whether to enter EE or DE. Our argument that a new venture's intangible resources influence its decision to enter DE or EE is well supported. Results provide interesting insights into how the desire to enhance and exploit these resources influences the internationalization decisions of EE entrepreneurs. Specifically, our results indicate that firms with established domestic reputations and proprietary technology at start-up choose to enter EE while those with founders who studied or worked abroad or currently lead by CEOs with technical education choose to enter DE. Further, ventures with more employees engaged in R&D, employees abroad, and direct exporting arrangements are more likely to enter DE.

Working at the intersection of the literature on international entrepreneurship and on strategy in EE, our study makes at least three contributions to the literature. First, it extends the resource-based view and the study of intangible resources including firm reputation (Mitchell *et al.*, 2000; Peng, 2001; Rindova and Petkova, 2005) to the context of EE-based new ventures' internationalization. Our findings on the effect of reputation on the choice of a path to internationalization are novel. Results indicate that a firm's domestic reputation strongly influences its decision of whether to enter EE or DE. This highlights how critical the expected halo effects of operating in the right location are to determining the internationalization path selected by entrepreneurs in EE. Internationalization into DE appears to be strongly motivated by a desire to enhance their intangible resources, the ventures' domestic reputation, and in turn their position in their domestic market.

Second, we also examine the effect that stocks of international market and technological knowledge have on the path that new ventures from EE take to internationalization. The results

indicate that knowledge and familiarity with DE increase the probability of an EE venture choosing DE as its path to internationalization. This result resonates with prior work on internationalization of new ventures. However, our findings for technological knowledge are more nuanced. Contrasting results for R&D employees, CEO technical background, and control of proprietary technology provide interesting insights into the decision processes of EE ventures selecting a path for internationalization. We find two variables (R&D employees and CEO background) to be positively associated with entering DE and the other variable (proprietary technology at start-up) to be negatively associated with the decision to enter DE. This suggests that new ventures from EE with proprietary technology at start-up are more likely to enter EE as opposed to DE when they internationalize. Ventures with proprietary technology may be more unsure of the competitive benefits of their technology in more sophisticated DE markets, and therefore seek to exploit the technology in other EE markets. They may also be hesitant to risk expropriation or imitation of that technology by competing in the more technologically sophisticated markets of DE. This is consistent with the idea that new ventures internationalize from EE to DE with a focus on exploration of new knowledge as opposed to exploitation of existing advantages (Hoskisson et al., 2013; Wright *et al.*, 2005). EE ventures led by technically trained CEOs and investing in R&D are seeking to learn from their entry into DE. These firms have built absorptive capacity and are prepared to learn and exploit the knowledge available in DE markets to create advantage not only in DE, but perhaps more importantly in their domestic market. EE ventures selecting a path for internationalization must balance the risks (imitation and appropriation) and the benefits (learning) from entering DE markets, and decide if entering DE requires to build the absorptive capacity to benefit from the entry.

Taken as a whole our results indicate that for EE ventures the benefits of entering DE as opposed to EE for their domestic competitive position is very influential in their decision to

internationalize. EE ventures entering DE are seeking reputation enhancement and knowledge, both of which will be applied to enhance their domestic competitive positions. EE-based ventures appear to consider internationalization into DE as an important strategic option. Indeed internationalization is a strategic decision that appears to be substantially influenced by its potential impact on their domestic position. Our results align with the existing literature that intangible resources such as knowledge can simultaneously affect multiple uses, and serve as inputs and outputs of corporate activities (Itami and Roehl, 1987). Teece (2007) suggests that a firm's superior performance depends on its ability to use its intangible resources and capabilities, and that ownership (or lack of ownership of) intangible resources will drive the decision making process of entrepreneurs—in this case, internationalization of ventures from EE to DE.

Finally, our contextual contribution focuses on the choice of entry into DE or EE that new ventures from China and India face. We empirically substantiate our arguments through a multi-country sample of new ventures from two major EE, China and India. Our specific focus on the choice between entry into DE and EE stands out among other papers on internationalization. Entrepreneurship in China has been increasingly studied (Cardoza and Fornes, 2011; Li, Young, and Tang, 2012; Lu *et al.*, 2010). However, there is relatively little work on new ventures in India—to the best of our knowledge, no prior study compares new ventures in India and China.[2] Qualitative case studies have documented the international mobility of entrepreneurs between EE and DE (primarily between China, India, and Israel on the one hand and the United States on the other hand) (Saxenian, 2006), but previous studies have not looked at the reputational impact as well as the effect of knowledge stocks and flows on the choice between entry into DE and EE that

[2] The only paper that compares the outward internationalization of Chinese and Indian firms deals with larger, listed firms (Sun et al., 2012).

new ventures make. Our study stands out in using the same quantitative methodology with a survey instrument designed for use in both China and India. Therefore, our efforts to systematically study the two major EE via a common research design and survey instrument clearly contribute to our understanding of EE-based new ventures and their international expansion behaviors.

Limitations and future research directions

Firms internationalize with performance outcomes in mind (Sapienza *et al.*, 2006; Tang and Tang, 2012). However, in this study, we have refrained from investigating the relationship between new ventures' internationalization from EE to DE and their subsequent performance, but we do highlight how the potential for the improvement of domestic performance is influential in the entrepreneur's choice between entering DE or EE. Consistent findings on the performance implications of new venture internationalization remain few and far between. The long-term performance consequences of such international venturing remain to be seen in future work.

Based on prior findings in the literature, younger and smaller new ventures in EE appear to face greater liability of newness and foreignness relative to more established and larger MNEs. Lyles, Saxton, and Watson (2004) find that aggressive internationalization of new ventures in Hungary reduces their chances for survival, serving as a cautionary reminder against any indiscriminate advice for new ventures to "go global." Following Sapienza *et al.*'s (2006) argument that most entrepreneurial actions in general will fail, one may argue that venturing from EE to DE will likely fail too (at least initially). New ventures may need more time than MNEs to reap the benefits of internationalization. However, we can speculate that beyond a certain threshold, new ventures from EE also have the chance to benefit by venturing from EE to DE through accessing new markets, but perhaps equally important by strengthening their position domestically (Autio *et al.*, 2000; Lu and Beamish, 2001). Moreover, studies have begun to offer a

positive linkage between organizational learning, technological learning, and firm performance (Chang, Gong, and Peng, 2012; Lyles and Salk, 1996; Peng, 2012; Yli-Renko, Autio, and Sapienza, 2001). The link between the path of internationalization and domestic performance of EE ventures is one that deserves further study.

Second, while the use of face-to-face administered survey is a strength of our design, relying on self-reported data may pose potential problem such as recall-bias by respondents. However, our respondents were CEOs, founders, and top management team members with deep knowledge about the history of the firm. Past experience collecting data in entrepreneurial settings has repeatedly shown that securing a second respondent for the firm normally meets with managerial resistance and is not realistic.

Third, future research may also look specifically at the source of educational and work experience that founders of new ventures acquire. We believe that such a fine-grained approach can answer questions about the knowledge specificity of international experience and uncover how specificity affects the choices that new ventures make with respect to internationalization.

Fourth, we encourage others to go beyond our sample from two major EE, and test our model on a larger set of EE and with a larger sample (Meyer *et al*., 2009). Future research will need to embrace a comparative, cross-country research design to identify whether our results are more generalizable among new ventures in other EE. Lastly, it is notable to suggest a dynamic approach as a future research agenda. Since international expansions of new ventures are outcomes of a process that occurs over time, a longitudinal approach (and the examination of time as a variable) may be more desirable for future research (Khavul *et al.*, 2010b). We have focused on new ventures' internationalization from EE to DE, yet internationalization from EE to EE is increasingly observed. Since our data only capture the first international entry, several questions remain: Do new ventures in EE initially internationalize into EE before entering DE?

While some new ventures may embark on their first foreign entry into DE, others may initially venture into other EE, and then turn to focus on DE as their next target. In other words, investigation of the paths that new ventures' pursue during internationalization activities may be a fascinating area for future research.

CONCLUSION

Broadening the trail blazed by Yamakawa *et al*. (2008), we argue and find that internationalization from EE to DE is risky and challenging, but can reward the new ventures from EE by enhancing and leveraging their intangible resources. The spirit of our study has been to endeavor to keep up with the cutting-edge, global phenomenon of new ventures' internationalization from EE to DE, and to better understand the decisions made by entrepreneurs in EE to choose DE as opposed to EE. An interesting implication from our study is that (at least in the case of the choice of EE vs. DE as their first step along the path to internationalization) the ability to enhance their bundle of intangible resources to improve their domestic competitive position significantly influences their choice. For EE entrepreneurs it appears that internationalization is at least as much about what it can do for them domestically, as it is about opening new markets. Given the fast-moving nature of this entrepreneurial phenomenon, we believe that we have tapped into an important, relevant, and challenging research agenda that has significant future potential.

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Table 1. Descriptive Statistics and Pearson Correlation Coefficients

		M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1	DE entry	0.75	0.46													
2	China	0.52	0.50	0.126												
3	ICT hardware	0.11	0.31	0.096	0.064											
4	ICT services	0.28	0.45	0.255	-0.219	-0.213										
5	Software products	0.05	0.21	0.022	0.215	-0.077	-0.137									
6	Biomedical	0.18	0.39	-0.130	0.182	-0.163	-0.292	-0.105								
7	Machinery and equipment	0.31	0.46	-0.067	0.091	-0.232	-0.416	-0.150	-0.318							
8	Traditional chemicals	0.07	0.27	-0.252	-0.298	-0.099	-0.178	-0.064	-0.136	-0.194						
9	Firm size	30.55	32.89	0.151	0.262	-0.056	0.058	-0.095	0.058	0.165	-0.329					
10	Service firm	0.26	0.44	0.146	-0.343	-0.160	0.836	-0.131	-0.210	-0.398	-0.120	-0.052				
11	Speed of internationalization	1.73	2.23	-0.135	0.080	0.113	-0.225	0.050	0.116	-0.018	0.070	-0.047	-0.236			
12	Profits at internationalization	0.60	0.49	0.000	0.101	0.047	-0.247	-0.045	0.075	0.083	0.145	-0.068	-0.230	0.187		
13	No domestic sales	0.12	0.32	0.075	-0.159	-0.066	0.060	-0.081	-0.031	0.070	-0.036	-0.148	0.076	-0.168	-0.112	
14	Domestic Reputation	3.38	1.35	-0.201	0.235	-0.005	-0.256	0.015	0.116	0.084	0.109	0.143	-0.389	0.259	0.192	-0.648
15	Founders' foreign education	0.63	1.30	0.200	0.255	0.011	-0.044	-0.085	0.242	-0.069	-0.104	0.177	-0.128	-0.055	0.105	0.007
16	Founders' work abroad	7.03	11.78	0.146	0.069	-0.122	-0.055	-0.120	0.052	0.124	0.039	0.136	-0.071	-0.143	0.044	0.186
17	Proprietary technology at start-up	0.45	0.50	-0.069	0.276	0.075	-0.212	0.024	0.096	0.136	-0.125	0.120	-0.315	0.066	0.106	-0.181
18	CEO technical education	0.61	0.49	0.325	-0.008	0.082	0.176	0.122	-0.149	-0.081	-0.130	-0.010	0.147	-0.018	-0.167	0.070
19	Employees in R&D	15.23	17.15	0.202	0.116	0.183	-0.043	0.546	-0.080	-0.210	-0.093	-0.159	-0.052	0.084	-0.063	-0.035
20	Employees abroad	1.01	4.22	0.147	-0.139	-0.011	0.204	-0.041	-0.089	-0.057	-0.070	0.133	0.208	-0.148	-0.017	0.038
21	Direct sales exporting	0.66	0.47	0.061	-0.112	-0.080	0.077	-0.078	-0.149	0.075	0.111	-0.115	0.107	-0.116	0.081	-0.050

r > .14 are significant at $p < .05$, N = 170

Table 1 (continued) Descriptive Statistics and Pearson Correlation Coefficients

		14	15	16	17	18	19	20
14	Domestic reputation							
15	Founders' foreign education	0.012						
16	Founders' work abroad	-0.144	0.305					
17	Proprietary technology at start-up	0.235	0.178	0.139				
18	CEO technical education	-0.119	0.026	-0.034	-0.025			
19	Employees in R&D	-0.053	-0.012	-0.169	0.036	0.195		
20	Employees abroad	-0.218	0.029	0.102	-0.113	-0.042	-0.054	
21	Direct sales exporting	-0.010	-0.004	0.078	-0.013	-0.063	-0.164	0.012

Table 2. Skewed Logistic Regression Estimates for the Likelihood of Entrepreneurial Firms from Emerging Economies Entering Developed Economies

Variables (hypotheses and signs)	Model 1 B (SE)	Model 2a B (SE)	Model 2b Odds Ratios (SE)
Constant	-15.530**	-17.530**	
	(0.831)	(1.285)	
Control variables			
China	0.441†	0.634	1.880
	(0.259)	(0.353)	(0.665)
ICT hardware	1.405*	1.003*	2.720*
	(0.608)	(0.642)	(1.75)
ICT services	2.867*	2.669***	14.426***
	(1.139)	(0.767)	(11.070)
Software products	0.973	-1.184	0.306
	(0.734)	(1.015)	(0.310)
Biomedical	0.518	0.161	1.175
	(0.600)	(0.615)	(0.720)
Machinery and equipment	0.607	0.339	1.403
	(0.572)	(0.574)	(0.857)
Firm size	0.075	0.219	1.246
	(0.105)	(0.181)	(0.225)
Service firms	-1.259	-1.783**	0.168**
	(1.033)	(0.627)	(0.105)
Speed of internationalization	-0.265†	-0.051	0.951
	(0.160)	(0.194)	(0.184)
Profits at internationalization	0.328	0.421	1.523
	(0.221)	(0.299)	(0.454)
No domestic sales	0.622†	-0.617	0.539
	(0.332)	(0.557)	(0.300)
Reputation			
Domestic reputation: (H1-)		-0.373*	0.689*
		(0.159)	(0.109)
Stocks of prior knowledge:			
International market knowledge: (H2+)			
Founders' education abroad		0.242**	1.274**
		(0.089)	(0.114)
Founders' work abroad		0.022*	1.022*
		(0.011)	(0.011)
Technological knowledge: (H3+)			
Proprietary technology		-0.565†	0.568
		(0.294)	(0.167)
CEO with technical education		1.007***	2.738**
		(0.303)	(0.828)
Flows of new knowledge: (H4+)			
Percent of employees in R&D		0.035**	1.035**
		(0.012)	(0.012)
Employees abroad		0.137*	1.147*
		(0.058)	(.0665)
Direct sales exporting		0.534*	1.707*
		(0.255)	(0.436)
Log pseudolikelihood	-84.72	-64.30	-64.30
Akaike Information Criterion	195.44	163.77	163.77
Bayesian Information Criterion	236.20	220.21	220.21

† $p < .1$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors. N = 170

(a) Industry category base: traditional chemicals.