What Motivates Emerging Economy Firms to Internationalize? A Replication and Extension of Ahsan et al. (2020) in the Context of China

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ABSTRACT Ahsan, Sinha, and Srinivasan (2020) studied the motives of knowledge-intensive Indian firms' international expansion based on resource-based considerations and the locational advantages offered by host countries. They identified firm characteristics associated with strategic asset-seeking, opportunity-seeking, and market-seeking motives. In this replication study, we examine Ahsan et al.'s (2020) model in the Chinese context. Based on our improved empirical model, our findings reveal some similarities but more importantly some key differences in the antecedents of internationalization motives between Indian and Chinese firms. Drawing on insights from prior studies, we propose that these differences can be attributed to differences in absorptive capacity, international expansion scales and patterns, ownership type, and the home institutional contexts in which Indian and Chinese firms operate. Overall, this replication study demonstrates the importance of contextualizing international business research.

KEYWORDS China, emerging economy multinational enterprises, India, internationalization, replication

INTRODUCTION

The past few decades have witnessed rapid growth in outward foreign direct investment (FDI) by emerging economy multinational enterprises (EMNEs). On the one hand, some studies suggest that EMNEs use international expansion as a springboard to overcome their late-comer status (Child & Rodrigues, 2005; Luo & Tung, 2007) by seeking strategic assets to augment their existing competencies (Buckley, Munjal, Enderwick, & Forsans, 2016; Cui, Meyer, & Hu, 2014). On the other hand, EMNEs also exploit their homegrown ownership advantages, such as expertise in mass production, low prices, and efficient utilization of resources in the international market (Buckley, Clegg, Cross, Liu, Voss, & Zheng, 2007; Luo & Tung, 2007). In spite of the diversity of motives that drive

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international expansion, very little research has been conducted to examine the antecedents of these motives.

Ahsan, Sinha, and Srinivasan (2020) represent one of the few exceptions. They classify the international expansion motives of EMNEs along two dimensions – resource-based considerations and relative local advantages of host countries – and identify three types of motives – market-seeking, opportunity-seeking, and strategic asset-seeking. Based on Luo and Tung's (2018) springboard theory, factors representing the adaptability, amalgamation, and ambidexterity advantages of EMNEs are tested as antecedents of the diverse motives underlying EMNEs' international expansion based on a sample of knowledge-intensive Indian firms. Their analysis contributes to the stream of literature on EMNEs by providing a distinct and holistic framework for understanding motives that drive international expansion.

We suggest that replicating Ahsan et al.'s (2020) study can offer insights into the generalizability and heterogeneity of their results and novel insights into EMNEs' international expansion by contextualizing the motivations they identify. Contextualization is particularly important for international business research (Foroudi, Gupta, Patel, Batsakis, Vaatanen, & Czinkota, 2021; Kostova & Hult, 2016; Teagarden, Von Glinow, & Mellahi, 2018), as cross-country differences between economic, institutional, and sociocultural environments affect the motivations, behaviors, and performance of economic actors in significant ways (Jackson & Deeg, 2019; Luo & Bu, 2018; Vasudeva, Spencer, & Teegen, 2013). Empirically, we chose to replicate Ahsan et al. (2020) in the Chinese context because China and India are the two largest emerging economies, where comparable samples of firms with strong international aspirations can be constructed. Our replication study thereby joins a currently underdeveloped body of research that examines heterogeneity across emerging economies (Xu & Meyer, 2013) and the various strategic behaviors exhibited by EMNEs (Hu, Cui, & Aulakh, 2019). Similarities and differences between Chinese and Indian firms can demonstrate important boundaries of Ahsan et al.'s (2020) theoretical arguments and further inspire research regarding how specific contextual factors influence international expansion motives.

In the following sections, we explain our reasons for re-examining the motives behind international expansion on the part of Chinese firms, after which we present the methodology and results of the replication study. Next, we compare our results with those of Ahsan et al. (2020), summarize the implications for contextualizing EMNE research, and discuss limitations and future research suggestions. The final section concludes our study.

RE-EXAMINING THE MOTIVES BEHIND INTERNATIONAL EXPANSION IN CHINA

Ahsan et al. (2020) provide a new holistic framework that facilitates the classification of various motives that drive internationalization by EMNEs into market-

seeking, opportunity-seeking, and strategic asset-seeking international expansion. Specifically, through market-seeking international expansion, firms exploit their specific advantages in other emerging or least-developed economies, as they seek the benefits of economies of scale (Buckley et al., 2007). Firms that exploit their specific advantages in developed economies are engaging in opportunity-seeking international expansion, as firms can benefit from the institutional environments in developed economies, which are marked by lower operational risk than they face in their home countries (Witt & Lewin, 2007). Finally, firms seeking to augment their assets through international expansion into developed economies often do so to obtain strategic assets, including technological know-how, distribution channels, managerial skills, and other assets (Luo & Tung, 2007; Mathews, 2006). Ahsan et al. (2020) studied firm-level antecedents such as R&D investment, financial slack, ownership structure, and family control as determinants of the motives for market-seeking, opportunity-seeking, and strategic asset-seeking international expansion. We summarize Ahsan et al.'s (2020) hypotheses in Table 1.

Internationalization motives that are central to internationalization theory are complex and multi-dimensional (Benito, 2015; Sethi, Guisinger, Phelan, & Berg, 2003). Ahsan et al.'s (2020) framework contributes to the literature on motives for internationalization by integrating the unique aspects of EMNEs based on both resource and location considerations. Therefore, it should prove useful to replicate Ahsan et al.'s (2020) study in another emerging-country context to determine whether the conclusions based on Indian manufacturing firms remain the same. In this study, we employ the quasi-replication method (Bettis, Helfat, & Shaver, 2016) to assess the robustness and generalizability of Ahsan et al.'s (2020) results. We chose China as the empirical setting for our replication study, as it is another important emerging economy with large outward FDI and active EMNEs. China's share in developing economies' outward FDI in 2019 ranked first globally at 31.4%, followed by Hong Kong and Singapore (UNCTAD, 2020). China accounts for 8.9% of global FDI outflow, ranking as the fourth largest investor after Japan, the United States, and the Netherlands (UNCTAD, 2020). Moreover, it has been demonstrated that Chinese outward FDI positively influences host country economies (Donou-Adonsou & Lim, 2018).

India and China share various similarities in terms of macroeconomic and microeconomic activities. At the macroeconomic level, both India and China have undertaken economic reforms in recent decades. In 1991, India initiated an economic liberalization initiative by implementing pro-market reforms and easing restrictions on private-sector participation (Kumar, Singh, Purkayastha, Popli & Gaur, 2020). Since the late 1970s, the Chinese government has provided a series of incentives for internationalization by Chinese firms, enabling the country to move from an 'open up' policy to a 'go global' policy (Buckley et al., 2007). These institutional transitions increased competitiveness in key industries and drove firms to pursue business activities abroad (Gaur, Kumar, & Singh, 2014). Moreover, both China and India have large domestic markets that have

Table 1. Summary of Ahsan et al. (2020) and replication study results

Drivers of internationalization	Hypothesis		Ahsan et al.'s (2020) results	Replication study results
R&D investment	H1a	A firm's investment in R&D is positively associated with market-seeking international expansion.	Supported	Supported
	H1b	A firm's investment in R&D is positively associated with opportunity-seeking international expansion.	Supported	Supported
	H1c	A firm's investment in R&D is positively associated with strategic asset-seeking international expansion.	Not supported	Supported
		Firms with larger investments in R&D are less likely to choose strategic asset-seeking international expansion than market-seeking international expansion or opportunity-seeking international expansion.	Supported	Supported
Financial slack	H2a	The availability of financial slack is positively associated with strategic asset-seeking international expansion.	Not supported	Supported
	H2b	The availability of financial slack is positively associated with opportunity-seeking international expansion.	Not supported	Not supported
	H2c	The availability of financial slack is positively associated with market-seeking international expansion.	Not supported	Not supported
		Firms with greater financial slack are less likely to choose market-seeking international expansion than opportunity-seeking international expansion or strategic asset-seeking international expansion.	Not supported	Partially supported
Ownership structure	H3a	The concentration of ownership is negatively associated with strategic asset-seeking international expansion.	Supported	Supported
	H3b	Firms with highly concentrated ownership are more likely to choose opportunity-seeking international expansion than strategic asset-seeking international expansion.	Not supported[1]	Not supported
	H3c	Ownership concentration is negatively associated with market-seeking international expansion.	Not supported	Not supported
		Firms with highly concentrated ownership are more likely to choose market-seeking international expansion than strategic asset-seeking international expansion or opportunity-seeking international expansion.	Partially supported	Not supported

Table 1. Continued

Drivers of internationalization	Hypothesis		Ahsan et al.'s (2020) results	Replication study results
Family control	H4a	In comparison with non-family firms, family firms are more inclined to pursue market-seeking international expansion.	Supported	Supported
	H4b	Family firms are more likely to choose market-seeking international expansion than opportunity-seeking international expansion.	Not supported	Not supported
	H4c	Family control is positively associated with strategic asset-seeking international expansion.	Not supported	Supported
		Family firms are less likely to choose strategic asset-seeking international expansion than market-seeking international expansion or opportunity-seeking international expansion.	Partially supported[2]	Partially supported

enabled them to develop substantial local business activity without internationalization (Maksimov & Luo, 2021). Last but not least, Duran, van Essen, Heugens, Kostova, and Peng (2019) argued that both China and India are ranked highly among emerging economies regarding the extent to which an emerging economy can provide favorable institutional environments for family-owned firms. At the microeconomic level, Indian and Chinese EMNEs share some similarities with regard to their FDI preferences, as both invest in advanced countries to seek sophisticated technology and know-how as well as world-class brands and international legitimacy, and both prefer acquisitions and setting up wholly owned foreign subsidiaries (Deng, 2009; Peng, Wang, & Jiang, 2008; Piscitello, Rabellotti, & Giada, 2015).

In addition to the abovementioned similarities, there are also clear differences between India and China. For example, the Chinese government's 'go global' policy, which was officially launched in 2000, has aggressively promoted internationalization by Chinese firms (Gaur, Ma, & Ding, 2018). Under this policy umbrella, concrete measures such as low-interest financing, favorable exchange rates, reduced taxation, and subsidies have been provided to facilitate expansion to overseas markets (Peng, 2012; Ramamurti & Hillemann, 2018). In comparison, similar policies enacted by the Indian government have been less consistent and intensive (Nayyar, 2008; Popli & Sinha, 2014).

With regard to corporate internationalization activities, De Beule and Duanmu (2012) showed that, in the case of acquisitions, Chinese firms, especially in high-tech manufacturing industries, target technological assets. Thus, they seem

to prefer acquiring firms that are located in developed countries. On the other hand, Indian firms seem to target markets that are less competitive, aiming to acquire firms in developing countries to exploit their competitive advantages. Luo, Sun, and Wang (2011) analyzed, among other characteristics, differences between Indian and Chinese firms in corporate governance. Their findings suggest that Chinese firms prefer going public, while Indian firms are family-centered. Family-owned Chinese firms value personal links, such as their hometowns or business ties (Graham & Lam, 2003), while family-owned Indian firms are more keen on joining business groups to gain political bargaining power (Hu et al., 2019).

Acknowledging similarities and differences between India and China are important when investigating whether contextual factors affect the motives that drive international expansion by Indian and Chinese firms. Understanding these similarities and differences can help us interpret the generalizability and heterogeneity of our results in comparison with Ahsan et al.'s (2020) results. In other words, the contextual alteration our replication study incorporates enables us to recognize inherent limiting conditions and theoretical boundaries (Whetten, 1989). While working towards this objective, we also aim to offer methodological improvements regarding several issues we have identified as problematic in Ahsan et al. (2020), specifically the appropriateness of the empirical model and the interpretation of the results.

METHODS

Data Sources and Sample

To be consistent with Ahsan et al.'s (2020) study, we select firms belonging to four high-tech manufacturing industries – chemical materials and chemicals; pharmaceuticals; automotive; and computer, communication, and other electronic equipment manufacturing – as the sample for this study, based on the 2012 industry classification of firms listed by the China Securities Regulatory Commission (China Security Regulatory Commission, 2012). Based on the availability of data, the observation period for our replication study runs from 2007 through 2016, which differs from the 2003–2013 sample period studied in Ahsan et al. (2020). After deleting affiliates of foreign firms and observations with missing data, we obtain a final dataset consisting of an unbalanced panel containing 759 firms with 3,503 firm-year observations.

Firm-level financial data are collected from the China Stock Market and Accounting Research (CSMAR) database, a widely used database covering listed companies in China. Data indicating international expansion by Chinese firms are collected from three sources – the CSMAR database, firms' annual reports, and non-periodic announcements.[3] Specifically, information regarding greenfield ventures, acquisitions, and joint ventures is collected directly from the CSMAR database, and information regarding alliances and technology acquisition is gathered by searching annual reports and announcements using keywords such as

'strategic alliances/cooperation', 'technology development', and 'technology transfer'. A greenfield venture is a completely new organization formed without accessing local resources (Barkema & Vermeulen, 1998; Meyer, Estrin, Bhaumik, & Peng, 2009). Therefore, in the overseas affiliated company database in CSMAR, we identify greenfield ventures by counting new overseas affiliates but excluding joint ventures, associated ventures, and subsidiaries acquired in mergers. After excluding expansions located in offshore financial centers, we identify 1,294 international expansions, which comprise 874 greenfield ventures, 25 joint ventures in foreign countries, and 107 joint ventures in China, along with 185 full and partial acquisitions, 76 alliances, and 27 technology acquisitions.[4]

Classification of International Expansion Motives

We follow Ahsan et al.'s (2020) method of classifying international expansion motives, which involves two steps. In the first step, we determine whether the primary objective of international expansion is asset exploitation or asset augmentation. Asset augmentation is a means of achieving or developing a competitive advantage by acquiring strategic assets, such as technology, marketing, and management expertise, that are available in a host country. Asset exploitation involves leveraging specific existing competitive advantages in a host country (Buckley et al., 2016; Kedia, Gaffney, & Clampit, 2012; Makino, Lau, & Yeh, 2002).

We classify greenfield ventures under asset exploitation, while coding technology acquisition as asset augmentation. Information was retrieved from annual reports and announcements to classify the motives behind acquisitions and equity alliances. For instance, asset exploitation is classified manually according to keywords such as 'entry' and 'foothold'. Asset augmentation is defined with reference to keywords related to acquiring assets, such as 'technology', 'brand', and 'distribution channel'. Among the 132 joint ventures in our sample, however, 121 lack descriptions that identify specific motives. Theoretically, an EMNE uses a joint venture as an efficient organizational form to acquire assets from a local firm (Delios & Beamish, 1999; Hennart, 1988; Meyer et al., 2009). Therefore, from a general theoretical perspective, we classify the 121 joint ventures that lack such descriptions as engaging in direct asset augmentation.

In the second step, we follow Ahsan et al. (2020) to measure the relative differences between host and home countries in terms of strategic-factor-market development, with China representing the home country in our case. Scores for the quality of infrastructure (railroads, ports, air transport, electricity supplies, and telephone lines), quality of local educational systems, quality of scientific research institutions, and availability of scientists and engineers were taken from the 2015–2016 Global Competitiveness Report. Where such scores are not available, we assign scores carefully according to information provided by countries/regions.[5]

The results obtained from these two steps enable us to classify international expansion motives into the three types. The form of international expansion that

is driven by the asset augmentation motive and involves expansion into countries where strategic-factor-market development is ahead of the development in China is classified as *strategic asset-seeking*. Asset exploitation in countries where strategic-factor-market development is ahead of the development in China is classified as *opportunity-seeking*, while asset exploitation in countries where strategic-factor-market development lags the development in China is classified as *market-seeking*.

Models for Analysis and Dependent Variables

Consistent with Ahsan et al. (2020), we conduct two sets of analyses to test the hypotheses (see Table 1, where we list all the hypotheses tested by Ahsan et al., 2020 and the present study). The first set of analyses tests hypotheses regarding direct relationships between antecedents and motives that drive international expansion (i.e., H1a, H1b, H2a, H2b, H3a, and H4a) with a negative binomial model at the firm-year level using the full panel dataset (759 firms over the 2007–2016 period, with 3,503 firm-year observations). The dependent variable is the total number of yearly expansions driven by various motives for international expansion by a given firm in each year in the sample period.

Ahsan et al. (2020) adopted the Heckman sample-selection model to analyze their panel data and discussed the model choice in their robustness analysis. In our replication study, however, several considerations have led us to choose an alternative model. First, the dependent variable is a count variable. In the second stage, the Heckman model is a linear model that could produce negative predicted values and does not restrict predicted values to integers. Hence, for binary, count, and ordinal responses, the Heckman method is not appropriate and may lead to incorrect conclusions (Miranda & Rabe-Hesketh, 2006). Second, a likelihood ratio test rejected the null hypothesis that the data can be pooled (as seen in Table 5), indicating that a panel data model should be adopted. The Heckman model is not appropriate, however, for analyzing panel data, because it ignores within-firm correlations. Finally, Ahsan et al. (2020) excluded firms that pursue no international expansion in the second stage of the Heckman sample-selection model. We, however, can use the full sample that contains all the firms that have or have not engaged in international expansion in a negative binomial regression analysis. Therefore, we avoid the problem of sample-selection bias with our model. Given these considerations, we instead adopt a random-effects negative binomial panel data model to test the hypotheses.

The second set of analyses tests hypotheses regarding the probability of pursuing international expansion based on being driven by one motive rather than another (i.e., H1c, H2c, H3b, H3c, H4b, and H4c) at the international expansion level using a pooled sample of 1,294 cases of international expansion conducted by sample firms during the 2007–2016 period. Like Ahsan et al. (2020), we adopt a multinomial logit (M-logit) model to analyze the effects of the predictor variables on the likelihood of expanding internationally based on being driven by one

motive rather than another. The dependent variable is a categorical variable with three values that correspond to the three international expansion motives. If the coefficient of an independent variable in the multinomial logit model is positive and statistically significant, the likelihood that a firm is driven by the motive is indicated by the dependent variable rather than the base motive increases. If the coefficient is negative and significant, the probability that a firm is driven by the motive is associated with the dependent variable rather than the base motive decreases. Ahsan et al. (2020) interpreted the coefficients derived with the multinomial logit model as if they reflect the strength of the relationships between the hypothesized antecedents and international expansion motives, which we think is inaccurate. Therefore, we reformulate and summarize the corresponding hypotheses, so that they indicate how changes in the predictors relate to the probabilities that one motive rather than another drives international expansion (the differences are reflected in the formulations of the hypotheses that can be found in Table 1).

Independent Variables and Control Variables

We follow the variable definitions in Ahsan et al. (2020) as closely as possible in our replication study. Because of differences in information disclosure requirements between China and India, however, Chinese data are not available for every variable used in Ahsan et al. (2020). We, therefore, replace these variables with the most similar variables for which the data are available in the Chinese context. In Table 2, we compare our measurements of the independent and control variables in the replication study with those of Ahsan et al. (2020).

Among the independent variables, *R&D investment* is measured by research and development (R&D) expenditures as a percentage of net sales in Ahsan et al. (2020), but we measure it as a percentage of total sales. *Financial slack* is represented by cash asset ratios in our replication study instead of by operating cash flows divided by net sales, as in Ahsan et al.'s (2020) study. This is because data on operating cash flows are not available in the Chinese dataset. Because a firm's cash asset ratio is the current value of its marketable securities and cash divided by its current liabilities, which indicates the firm's ability to pay its short-term obligations, we adopt this variable to represent financial slack. *Ownership concentration* is measured by the Herfindahl index for the shareholdings of all shareholders in Ahsan et al.'s (2020) study, while in this replication study the Herfindahl index is calculated based on the shareholdings of the top ten shareholders only. In Ahsan et al.'s (2020) study, *family control* equals one if a family is the largest shareholder in a firm and zero otherwise. In this replication study, we adopt the definition of family firms as specified by the CSMAR, which defines family firms more broadly and from a controlling perspective.[6]

Among the eight control variables, five are identical to variables included in Ahsan et al.'s (2020) study: *firm size*, *firm age*, *FII shareholding*, *financial leverage*, and *market structure*. Regarding the other control variables, *network ties* is measured as

Table 2. Variable measurement in Ahsan et al. (2020) and the replication study

	Ahsan et al. (2020)	Replication study
Independent variables		
R&D investments	R&D expenditures as a percentage of net sales	R&D expenditures as a percentage of total sales
Financial slack	Operating cash flows divided by net sales	Cash asset ratio
Family control	=1 if a family is the single largest shareholder in a firm; otherwise = 0	=1 if the firm is a family firm; otherwise = 0
Ownership concentration	Herfindahl index for all shareholdings of all shareholders	Herfindahl index for the top ten shareholders
Control variables		
Firm size	Logarithm of net sales	Logarithm of net sales
Firm age	Logarithm of the number of years a firm has operated since inception	The number of years a firm has operated since inception
FII shareholding	The percentage of total shares held by foreign institutions of total outstanding shares	The percentage of total shares held by foreign institutions of total outstanding shares
Network ties	Number of ties with other firms a focal firm has through its directors	Number of concurrent positions that a focal firm's directors, supervisors, and executives occupy in other listed firms
Marketing intensity	Marketing expenses as a percentage of sales	Selling expenses as a percentage of net sales
Financial leverage	Debt-to-equity ratio	Debt-to-equity ratio
Business group affiliation	=1 if a firm is affiliated with a group; otherwise = 0	No data
Market structure	Herfindahl index of net sales of all companies in an industry	Herfindahl index of revenue of all companies in an industry

the number of ties that a focal firm has through its directors with other listed firms included in Ahsan et al.'s (2020) study, while, in our study, we calculate the number of concurrent positions that a focal firm's directors, supervisors, and executives occupy in other listed firms. In Ahsan et al.'s (2020) study, marketing intensity is defined as marketing expenses as a percentage of sales. Because marketing expense data are not available for Chinese listed companies, we adopt the *ratio of selling expenses to net sales* instead. Selling expenses represent a broader category of expenses incurred in product sales, and they include expenses involved in advertising, packaging, insurance, exhibitions, and so on. Last but not least, the variable *business group affiliation* that is included in Ahsan et al. (2020) is not included in our replication study because relevant data are unavailable.

RESULTS

Table 3 shows the correlations between the variables and relevant descriptive statistics using the panel dataset ($n = 3,503$). The mean value of the opportunity-seeking motive is the highest among the three motive variables, followed by

Table 3. Descriptive statistics and correlation table for the negative binomial regression model

Variable	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13
Strategic asset-seeking	0.09	0.61													
Opportunity-seeking	0.20	0.72	0.18												
Market-seeking	0.04	0.32	0.07	0.40											
Firm size	22.68	1.24	0.15	0.15	0.16										
Firm age	14.27	5.73	0.04	−0.01	0.02	0.26									
Financial leverage	0.76	2.27	0.00	0.01	0.02	0.17	0.09								
Market structure	0.05	0.06	0.07	0.01	0.04	0.19	0.04	0.06							
R&D investments	0.05	0.06	−0.01	0.03	0.02	−0.26	−0.09	−0.07	−0.04						
Marketing intensity	0.09	0.10	−0.01	−0.04	−0.02	−0.11	0.06	−0.06	−0.19	0.06					
Financial slack	0.19	0.14	0.00	0.00	−0.03	−0.28	−0.23	−0.16	−0.06	0.20	0.14				
Family control	0.66	0.47	−0.02	0.06	−0.02	−0.34	−0.26	−0.14	−0.04	0.05	0.11	0.12			
Ownership concentration	0.07	0.09	0.07	−0.03	0.02	0.38	0.19	0.11	0.11	−0.12	−0.03	−0.18	−0.35		
Network ties	23.95	19.46	0.05	0.10	0.13	0.26	0.01	0.01	0.00	0.03	−0.04	−0.02	−0.07	0.08	
FII shareholding	0.01	0.06	0.00	0.05	−0.02	−0.01	−0.13	−0.03	0.00	0.02	0.00	0.10	0.07	−0.10	0.02

strategic asset-seeking and market-seeking. Table 4 shows the correlations between the independent variables and the descriptive statistics for the sample where each international expansion is an observation ($n = 1,170$).

The regression results derived from the negative binomial model and multinomial logit model are presented in Tables 5 and 6, respectively, along with Ahsan et al.'s (2020) results. In Table 5, we report Ahsan et al.'s (2020) results derived from the negative binomial regressions with models 1, 3, and 5, and our replication results obtained with models 2, 4, and 6. Three dependent variables are constructed to capture the total number of new international expansions by firms in each year based on strategic asset-seeking (models 1 and 2), opportunity-seeking (models 3 and 4), and market-seeking motives (models 5 and 6). In Table 6, we report the results derived from Ahsan et al.'s (2020) multinomial logit regressions with models 7, 9, and 11, and our replication results with models 8, 10, and 12. The dependent variable in models 7–10 uses the strategic asset-seeking motive as the baseline category, while the dependent variable in models 11 and 12 uses the opportunity-seeking motive as the baseline category. In this article, we chose the 10% significance level.

The reported results support hypotheses 1a and 1b, as the effects of *R&D investment* on market-seeking international expansion derived from model 6 ($\beta = 4.51$, $p = 0.014$) and on opportunity-seeking derived from model 4 ($\beta = 2.92$, $p = 0.000$) are positive and statistically significant. Hypothesis 1c is also supported, as the effects of *R&D investment* on strategic asset-seeking international expansion derived from model 2 ($\beta = 2.30$, $p = 0.084$) are positive and marginally significant. Moreover, the coefficients of *R&D investment* derived from models 8 ($\beta = 10.52$, $p = 0.000$) and 10 ($\beta = 7.24$, $p = 0.003$) are both positive and significant. These results show that an increase in R&D investment increases the likelihood that firms choose opportunity-seeking and market-seeking international expansion over strategic asset-seeking international expansion. The positive and significant coefficient of *financial slack* derived from model 2 ($\beta = 1.40$, $p = 0.017$) supports hypothesis 2a, which proposes that financial slack is positively associated with strategic asset-seeking international expansion. Hypothesis 2b, which proposes a positive association of *financial slack* with opportunity-seeking international expansion, is not supported ($\beta = 0.66$, $p = 0.110$). The first statement of hypothesis 2c regarding a positive association of *financial slack* with market-seeking international expansion is not supported by model 6 ($\beta = 0.23$, $p = 0.849$). The clause in the second statement of hypothesis 2c that proposes that firms with greater *financial slack* are less likely to pursue market-seeking international expansion over opportunity-seeking international expansion is not supported by model 12 ($\beta = -1.46$, $p = 0.150$), as the coefficient is not significant. The clause in hypothesis 2c that proposes that firms with greater financial slack are less likely to pursue market-seeking international expansion than strategic asset-seeking international expansion is supported, as the coefficient derived from model 8 is negative and significant ($\beta = -1.90$, $p = 0.083$). In all, hypothesis 2c is partially supported.

Table 4. Descriptive statistics and correlation table for the multinomial logit regression model

Variable	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10
Firm size	23.61	1.53										
Firm age	14.65	5.60	0.30									
Financial leverage	0.87	0.91	0.38	0.21								
Market structure	0.06	0.06	0.39	0.18	0.16							
R&D investments	0.05	0.05	−0.24	−0.05	−0.17	−0.09						
Marketing intensity	0.07	0.08	−0.10	0.07	−0.18	−0.22	0.21					
Financial slack	0.18	0.13	−0.25	−0.15	−0.35	−0.06	0.23	0.12				
Family control	0.70	0.46	−0.55	−0.21	−0.20	−0.22	0.07	0.08	0.07			
Ownership concentration	0.07	0.11	0.61	0.25	0.12	0.30	−0.18	−0.06	−0.08	−0.41		
Network ties	32.17	28.16	0.27	0.02	0.10	0.01	0.10	0.00	−0.07	−0.21	0.04	
FII shareholding	0.02	0.08	−0.08	−0.20	−0.10	−0.05	0.00	−0.03	0.07	0.10	−0.12	−0.03

Notes: The dependent variable for the multinomial logit regression model is a categorical variable. Therefore, we do not report the correlation between it and the independent variables.

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Table 5. Negative binomial regression results

Dependent variable	Strategic asset-seeking				Opportunity-seeking				Market-seeking			
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Models	Ahsan et al. (2020)		Replication study		Ahsan et al. (2020)		Replication study		Ahsan et al. (2020)		Replication study	
	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values
Constant	−2.08 (0.75)	0.006	−15.36 (1.80)	0.000	−1.68 (0.48)	0.000	−12.48 (1.32)	0.000	−8.47 (1.09)	0.000	−24.12 (3.30)	0.000
Inverse mills ratio	−1.47 (0.36)	0.000	n/a	n/a	−1.08 (0.19)	0.000	n/a	n/a	0.39 (0.46)	0.395	n/a	n/a
Firm size	0.42 (0.18)	0.019	0.58 (0.07)	0.000	0.02 (0.10)	0.874	0.51 (0.06)	0.000	1.49 (0.24)	0.000	0.92 (0.14)	0.000
Firm age	0.09 (0.35)	0.789	0.01 (0.02)	0.659	−0.12 (0.21)	0.576	−0.02 (0.01)	0.072	−0.60 (0.43)	0.165	−0.01 (0.03)	0.848
FII holding	−0.001 (0.01)	0.839	−0.18 (1.05)	0.865	0.01 (0.004)	0.034	1.16 (0.57)	0.042	−0.01 (0.01)	0.578	−7.51 (7.49)	0.316
Network ties	−0.01 (0.01)	0.455	0.01 (0.004)	0.125	0.01 (0.004)	0.167	0.005 (0.002)	0.052	0.01 (0.01)	0.589	0.01 (0.005)	0.053
Marketing intensity	−4.53 (2.18)	0.037	−0.74 (0.87)	0.396	−0.26 (1.04)	0.801	−1.59 (0.62)	0.011	9.74 (1.94)	0.000	−2.07 (1.81)	0.251
Debt-to-equity ratio	−0.01 (0.02)	0.754	−0.03 (0.05)	0.531	0.01 (0.01)	0.207	−0.01 (0.03)	0.763	−0.03 (0.02)	0.057	−0.01 (0.08)	0.910
Business group affiliation	−0.12 (0.15)	0.419	n/a	n/a	−0.10 (0.08)	0.255	n/a	n/a	0.04 (0.20)	0.858	n/a	n/a
Market structure	4.35 (2.95)	0.140	3.27 (1.32)	0.013	2.50 (1.64)	0.126	−2.5 (1.10)	0.023	−4.92 (3.79)	0.194	−1.05 (2.36)	0.657
R&D investments	0.94 (0.64)	0.143	2.30 (1.33)	0.084	0.94 (0.20)	0.000	2.92 (0.82)	0.000	1.32 (0.36)	0.000	4.51 (1.84)	0.014
Financial slack	0.12 (0.42)	0.768	1.40 (0.59)	0.017	0.11 (0.21)	0.602	0.66 (0.41)	0.110	0.68 (0.58)	0.242	0.23 (1.18)	0.849

Table 5. Continued

Dependent variable	Strategic asset-seeking				Opportunity-seeking				Market-seeking			
Models	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Ahsan et al. (2020)		Replication study		Ahsan et al. (2020)		Replication study		Ahsan et al. (2020)		Replication study	
	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values
Ownership concentration	−1.83 (0.53)	0.000	−2.39 (0.94)	0.011	1.01 (0.30)	0.000	−2.78 (0.73)	0.000	−0.32 (0.68)	0.633	−1.64 (1.43)	0.253
Family control	0.17 (0.14)	0.214	1.04 (0.21)	0.000	0.25 (0.08)	0.002	0.96 (0.15)	0.000	0.70 (0.19)	0.000	1.09 (0.36)	0.002
Time dummies	Included		Included		Included		Included		Included		Included	
Observations	1,109		3,503		1,109		3,503		1,109		3,503	
Log likelihood	−886.33		−893.45412		−1,514.00		−1,673.1572		−591.96		−398.2185	
Wald χ^{2a}	237.13		120.53		493.41		177.97		181.54		77.17	
Pseudo R^2	0.12				0.14				0.13			
LR test vs. pooled: χ^{2b}			54.32				65.16				33.06	

Notes: [a]Wald χ^2 values are significant at *p*-values = 0.000.
[b]χ^2 values of the LR test vs. pooled are significant at *p*-values = 0.000.

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Table 6. Multinomial logit model results

Dependent variable	Market-seeking				Opportunity-seeking				Market-seeking			
Base motive	Base motive: strategic asset-seeking				Base motive: strategic asset-seeking				Base motive: opportunity-seeking			
Models	Model 7		Model 8		Model 9		Model 10		Model 11		Model 12	
	Ahsan et al. (2020)		Replication study		Ahsan et al. (2020)		Replication study		Ahsan et al. (2020)		Replication study	
	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values	b (s.e.)	p-values
Constant	1.42 (1.02)	0.226	−10.21 (3.02)	0.001	−3.02 (1.25)	0.013	2.20 (1.98)	0.266	4.27 (1.25)	0.000	−12.41 (2.72)	0.000
Firm size	−0.64 (0.21)	0.002	0.38 (0.12)	0.003	0.34 (0.25)	0.190	−0.07 (0.08)	0.390	−0.97 (0.25)	0.000	0.45 (0.11)	0.000
Firm age	−0.29 (0.56)	0.632	−0.02 (0.23)	0.489	−0.11 (0.64)	0.906	−0.02 (0.01)	0.219	−0.18 (0.63)	0.755	0.002 (0.02)	0.921
Debt-to-equity ratio	0.20 (0.11)	0.068	0.26 (0.17)	0.129	0.10 (0.14)	0.470	0.39 (0.13)	0.004	0.10 (0.14)	0.480	−0.13 (0.13)	0.325
International experience	1.35 (0.42)	0.001	n/a	n/a	0.10 (0.53)	0.849	n/a	n/a	1.25 (0.52)	0.0159	n/a	n/a
International financial resources	−0.44 (0.32)	0.170	n/a	n/a	−0.73 (0.42)	0.086	n/a	n/a	0.29 (0.43)	0.492	n/a	n/a
FII holding	0.001 (0.01)	0.915	−7.10 (3.10)	0.021	−0.02 (0.01)	0.155	1.73 (1.16)	0.137	0.02 (0.01)	0.138	−8.82 (2.92)	0.003
Marketing intensity	3.12 (4.15)	0.455	−2.88 (1.20)	0.016	8.73 (4.72)	0.065	−2.43 (1.00)	0.015	−5.61 (4.17)	0.178	−0.45 (1.14)	0.691
Business group affiliation	−0.22 (0.25)	0.371	n/a	n/a	−0.23 (0.31)	0.449	n/a	n/a	0.01 (0.30)	0.973	n/a	n/a
Market structure	0.02 (3.44)	0.997	−3.21 (1.84)	0.081	−4.90 (4.17)	0.237	−4.29 (1.30)	0.001	4.92 (4.30)	0.250	1.07 (1.71)	0.531
Network ties	0.03 (0.01)	0.023	0.008 (0.003)	0.023	0.01 (0.01)	0.439	0.001 (0.003)	0.605	0.02 (0.01)	0.227	0.006 (0.003)	0.043
R&D investments	7.12 (3.07)	0.019	10.52 (2.79)	0.000	10.77 (3.30)	0.001	7.24 (2.45)	0.003	−3.65 (2.35)	0.119	3.28 (1.71)	0.055
Financial slack	0.31 (0.85)	0.716	−1.90 (1.10)	0.083	1.10 (1.08)	0.305	−0.44 (0.63)	0.484	−0.79 (1.06)	0.450	−1.46 (1.01)	0.150
Ownership concentration	1.80 (0.85)	0.035	−2.98 (1.21)	0.014	0.74 (1.03)	0.475	−2.26 (0.84)	0.007	1.06 (1.00)	0.287	−0.72 (1.20)	0.552
Family control	0.32 (0.22)	0.144	0.45 (0.28)	0.113	0.53 (0.27)	0.050	0.38 (0.19)	0.045	−0.20 (0.28)	0.457	0.07 (0.27)	0.802

Table 6. Continued

Dependent variable	Market-seeking		Opportunity-seeking		Market-seeking	
Base motive	*Base motive: strategic asset-seeking*		*Base motive: strategic asset-seeking*		*Base motive: opportunity-seeking*	
Models	*Model 7*	*Model 8*	*Model 9*	*Model 10*	*Model 11*	*Model 12*
	Ahsan et al. (2020)	*Replication study*	*Ahsan et al. (2020)*	*Replication study*	*Ahsan et al. (2020)*	*Replication study*
	b *(s.e.)* p-*values*	b *(s.e.)* p-*values*	b *(s.e.)* p-*values*	b *(s.e.)* p-*values*	b *(s.e.)* p-*values*	b *(s.e.)* p-*values*
Time dummies	Included	Included	Included	Included	Included	Included
Observations	781	1,170	781	1,170	781	1,170
Log likelihood	−656.37	−949.03989	−656.37	−949.03989	−656.37	−949.03989
Wald χ^{2a}	344.36	7,967.72	344.36	7,967.72	344.36	7,967.72
Pseudo R^2	0.20	0.0999	0.20	0.0999	0.20	0.0999

Note: [a]Wald χ^2 values are significant at p-values = 0.000.

The negative and significant coefficient of *ownership concentration* derived from model 2 ($\beta = -2.39$, $p = 0.011$) supports hypothesis 3a, indicating that ownership concentration has a negative impact on strategic asset-seeking international expansion. Hypothesis 3b is not supported, however, as the coefficient of *ownership concentration* derived from model 10 ($\beta = -2.26$, $p = 0.007$) is negative and significant, which means that firms that operate under more highly concentrated ownership are more likely to choose strategic asset-seeking international expansion than opportunity-seeking international expansion. The first statement of hypothesis 3c, which proposes that there is a negative effect of *ownership concentration* on market-seeking international expansion, is not supported either, as the coefficient derived from model 6 ($\beta = -1.64$, $p = 0.253$) is not significant. The clause in the second statement of hypothesis 3c that proposes that firms with high *ownership concentration* are more likely to choose market-seeking international expansion than strategic asset-seeking international expansion is not supported by model 8 ($\beta = -2.98$, $p = 0.014$). Indeed, the negative and significant results indicate that firms with more highly concentrated ownership are less likely to choose market-seeking international expansion than strategic asset-seeking international expansion. In addition, the clause in the second statement of hypothesis 3c that proposes that firms with high *ownership concentration* are more likely to choose market-seeking than opportunity-seeking international expansion is not supported either, as the coefficient derived from model 12 is not significant ($\beta = -0.72$, $p = 0.552$). Overall, hypothesis 3c is not supported.

Hypothesis 4a, regarding the inclination on the part of family-controlled firms (as opposed to non-family-controlled firms) to pursue market-seeking international expansion, is supported, with a positive and significant coefficient of *family control* derived from model 6 ($\beta = 1.09$, $p = 0.002$). Hypothesis 4b, which proposes that family-controlled firms are more likely to conduct market-seeking international expansion than opportunity-seeking international expansion, is not supported, as the coefficient derived from model 12 is not significant ($\beta = 0.07$, $p = 0.802$). Finally, the first statement of hypothesis 4c, which proposes that there is a positive effect of *family control* on strategic asset-seeking international expansion, is supported, as the coefficient derived from model 2 ($\beta = 1.04$, $p = 0.000$) is positive and significant. Moreover, the coefficient derived from model 10 ($\beta = 0.38$, $p = 0.045$) shows that family-controlled firms are less likely to choose strategic asset-seeking international expansion than opportunity-seeking international expansion, which lends support to the corresponding clause in the second statement of hypothesis 4c. However, the other clause in the second statement of hypothesis 4c, which proposes that family-controlled firms are less likely to conduct strategic asset-seeking international expansion than market-seeking international expansion, is not supported, as the coefficient of *family control* derived from model 8 is not significant ($\beta = 0.45$, $p = 0.113$). Overall, hypothesis 4c is partially supported.

In the discussion below, we compare the findings of our replication study with those reported in Ahsan et al. (2020) regarding the four main independent variables.

DISCUSSION

Comparing the Current Findings with Ahsan et al.'s (2020) Findings

R&D investment. Both Chinese and Indian firms that invest more robustly in R&D are more likely to pursue market-seeking and opportunity-seeking than strategic asset-seeking international expansion. These results manifest the exploitative nature of market-seeking and opportunity-seeking international expansion. In line with Ahsan et al.'s (2020) study, we found support for the argument that EMNEs possess specific technological ownership advantages that can be exploited in the overseas market.

The main difference between Chinese and Indian firms is that R&D investment has a significantly positive impact on strategic asset-seeking international expansion for Chinese firms but not for Indian firms. This result may reflect differences in absorptive capacity that differentiate Chinese from Indian firms. Because many strategic assets are patents and proprietary technologies (Cui et al., 2014; Luo & Tung, 2007), EMNEs need sufficient absorptive capacity to make productive use of such assets. R&D investment plays an important role in building this capacity (Cohen & Levinthal, 1990). As seen in Table 3, the R&D intensity of Chinese EMNEs averages 5% of total sales, which is five times than that of an Indian firm's (see Ahsan et al., 2020, Table 2).[7] As Chinese firms are more R&D-intensive than Indian firms, we suspect that Chinese EMNEs, on average, feature stronger absorptive capacity than their Indian counterparts, enabling Chinese EMNEs to recognize, assimilate, and use external knowledge in international strategic factor markets more effectively. This greater efficacy in the pursuit of strategic asset-seeking may explain the positive association between R&D intensity and Chinese EMNEs' motivation to engage in strategic asset-seeking international expansion.

Financial slack. Consistent with the evidence from India presented by Ahsan et al. (2020), financial slack is found to have no significant relationship with opportunity-seeking or market-seeking international expansion on the part of Chinese EMNEs. This finding suggests that, insofar as opportunity-seeking and market-seeking activities are associated with relatively low or moderate levels of risk, especially when compared with strategic asset-seeking (Figueira-de-Lemos, Johanson, & Vahlne, 2011; Johanson & Vahlne, 1977, 1990), maintaining a financial buffer is not essential to low-risk international expansion. We find, however, that in China financial slack is positively related to strategic asset-seeking international expansion, and firms with greater financial slack are more likely to pursue that forms international expansion than market-seeking international expansion. Because strategic asset-seeking international expansion involves higher risk and uncertainty than market-seeking international expansion (Figueira-de-Lemos et al., 2011; Johanson & Vahlne, 1977, 1990), financial slack is essential to Chinese firms seeking to alleviate the risk and uncertainty associated with strategic

asset-seeking international expansion. This effect is not, however, supported in Ahsan et al.'s (2020) study. This may reflect differences of scale and in patterns of strategic asset-seeking FDI conducted by Chinese and Indian firms. Chinese firms are reportedly aggressive in acquiring high-value foreign assets to accelerate their pursuit of global market leadership (Deng, 2009; Huang and Sharif, 2016; Park & Roh, 2019; Peng, 2012). Such an aggressive pattern of international expansion requires financial buffering. On the other hand, Indian firms appear to be more risk-averse than Chinese firms. Elango and Pattnaik (2011) find, for example, that Indian firms engage in cross-border acquisitions serially, often acquiring targets of increasing value sequentially as part of a learning approach to managing risks 'before the big leap'.

Ownership concentration. The concentration of ownership in Indian firms is negatively related only to strategic asset-seeking international expansion, and firms that operate under more highly concentrated ownership are more likely to choose market-seeking international expansion than strategic asset-seeking international expansion. Ahsan et al. (2020) explain this finding based on the premise that strategic asset-seeking international expansion is riskier than opportunity-seeking or market-seeking expansion (Figueira-de-Lemos et al., 2011; Johanson & Vahlne, 1977, 1990). They conclude that firms featuring more highly concentrated ownership are less likely to pursue risky international expansion. This finding is not replicated precisely in our analysis of Chinese firms. Instead, our analysis shows that ownership concentration is negatively associated with both strategic asset-seeking and opportunity-seeking international expansion. Among Chinese firms that engage in international expansion, though, we found that highly concentrated ownership makes pursuing strategic asset-seeking international expansion more likely than pursuing market-seeking or opportunity-seeking international expansion. These mixed findings suggest that ownership concentration is not necessarily associated with risk avoidance, at least not universally.

We suspect that there are at least two factors contributing to the complexity of the ownership concentration effect. It depends first on the type of concentrated ownership involved. State owners may have different risk preferences and time horizons than private owners. Compared with private owners, state owners may have a greater appetite for risk and are more likely to believe they can afford to pursue long-term objectives over short-term profits (Bruton, Peng, Ahlstrom, Stan, & Xu, 2015; Zhou, Gao, & Zhao, 2017). The second factor concerns the relative risk profiles of the various motives that drive international expansion. Strategic asset-seeking may not always be riskier than other types of international expansion, depending on the institutional support provided to expanding firms.

Both ownership structure and risk vary significantly with home contexts. For instance, while state ownership is prevalent in China, family owners dominate Indian firms (Hu et al., 2019). Also, governmental support for internationalization reduces the risk associated with strategic asset-seeking international expansion for

Chinese firms (Hitt, Ahlstrom, Dacin, Levitas, & Svobodina, 2004; Yan, Zhu, Fan, & Kalfadellis, 2018). Through a series of policies, such as low-interest financing, favorable exchange rates, and reduced taxation, Chinese governments reduce the costs that Chinese firms incur when acquiring strategic assets in pursuit of international expansion (Buckley et al., 2007; Gu & Reed, 2013; Peng, 2012). The extent of such institutional support of Indian firms' international expansion has been less substantial (Nayyar, 2008; Popli & Sinha, 2014).

Family control. Family-controlled Chinese firms are more likely than non-family Chinese firms to initiate international expansion, no matter which of the three motives we include in our analysis is involved. By comparison, family-controlled Indian firms are more likely than non-family firms to pursue only opportunity-seeking and market-seeking international expansion. In both the Chinese and Indian contexts, family-controlled firms are more likely to choose opportunity-seeking international expansion than strategic asset-seeking expansion.

To summarize, the only difference between Ahsan et al.'s (2020) and our findings pertaining to family firms is that family-controlled Chinese firms are more likely than non-family firms to pursue strategic asset-seeking international expansion, whereas family-controlled Indian firms are not more likely than non-family firms to do so. It is possible that this difference reflects differences in home institutional contexts. One critical institutional void that affects emerging markets is the lack of intellectual property protection and a fully functioning domestic strategic factor market. Family-controlled Chinese and Indian firms may, however, respond to this institutional void differently. Research has found that Chinese firms often use FDI to avoid home institutional constraints or deficiencies (Cui & Xu, 2019; Xia, Ma, Lu, & Yiu, 2014). Family-controlled firms in China have relied traditionally on low-cost manufacturing and local network resources and therefore are in greater need of extricating themselves from local dependencies as they seek to upgrade their value-adding competencies (Erdener & Shapiro, 2005). In contrast, family-controlled firms in India are more likely to organize themselves into powerful business groups with political bargaining power vis-à-vis the government (Hu et al., 2019). The group structure and political power allow these Indian family firms to exploit home institutional voids to an extent that weakens their motives to seek strategic assets overseas.

Implications for Contextualizing EMNE Research

Table 7 juxtaposes the findings of this replication study with the findings reported by Ahsan et al. (2020). It shows both the convergence and divergence of empirical evidence gathered from the Chinese and Indian contexts. The significant divergence between the contexts of these two large emerging economies demonstrates the need to contextualize EMNE research. It is clear that there are substantial heterogeneities across emerging economies (Hoskisson, Wright, Filatotchev, & Peng,

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Table 7. Comparison of empirical results reported by Ahsan et al. (2020) and the replication study pertaining to India and China, respectively

Drivers of international expansion motives	Empirical evidence			Explanation of the different findings on Indian and Chinese firms
	Both countries	Unique to India	Unique to China	
R&D	R&D investment has a positive effect on opportunity-seeking and market-seeking international expansion.	R&D investment does not affect strategic asset-seeking international expansion.	R&D investment has a positive effect on strategic asset-seeking international expansion.	Varying levels of absorptive capacity may have a threshold effect on international expansion by EMNEs. Beyond a certain threshold level of absorptive capacity, R&D investment promotes strategic asset-seeking.
	An increase in R&D investment makes firms more likely to choose market-seeking and opportunity-seeking international expansion than strategic asset-seeking international expansion.	An increase in R&D does not affect the likelihood of choosing between market-seeking and opportunity-seeking international expansion.	An increase in R&D investment makes firms more likely to choose market-seeking international expansion than opportunity-seeking international expansion.	
Financial slack	The availability of financial slack does not affect opportunity-seeking or market-seeking international expansions.	Financial slack does not affect strategic asset-seeking international expansion.	Financial slack has a positive effect on strategic asset-seeking international expansion.	EMNEs' exhibit varying levels of risk tolerance. Some are more aggressive and require considerable financial slack to buffer the risks associated with strategic asset-seeking. Others operate more incrementally when it comes to acquiring overseas assets.
	An increase in financial slack does not affect the likelihood of choosing between opportunity-seeking and market-seeking international expansion or between strategic asset-seeking and opportunity-seeking international expansion.	An increase in financial slack does not affect the likelihood of choosing between market-seeking international expansion and strategic asset-seeking international expansion.	An increase in financial slack makes firms more likely to choose strategic asset-seeking international expansion than market-seeking international expansion.	

Table 7. Continued

Drivers of international expansion motives	Empirical evidence			Explanation of the different findings on Indian and Chinese firms
	Both countries	Unique to India	Unique to China	
Ownership concentration	Ownership concentration has a negative effect on strategic asset-seeking international expansion. Ownership concentration does not affect market-seeking international expansion.	Ownership concentration has a positive effect on opportunity-seeking international expansion. An increase in ownership concentration makes firms more likely to choose market-seeking international expansion than strategic asset-seeking international expansion.	Ownership concentration has a negative effect on opportunity-seeking international expansion. An increase in ownership concentration makes firms more likely to choose strategic asset-seeking international expansion than market-seeking international expansion.	There is no universal effect of ownership concentration. The type of concentrated ownership matters. Home institutional support also influences the risk profiles of the various motives for international expansion.
	An increase in ownership concentration does not affect the likelihood of choosing between market-seeking international expansion and opportunity-seeking international expansion.	An increase in ownership concentration does not affect the likelihood of choosing between opportunity-seeking international expansion and strategic asset-seeking international expansion.	An increase in ownership concentration makes firms more likely to choose strategic asset-seeking international expansion than opportunity-seeking international expansion.	

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Table 7. Continued

Drivers of international expansion motives	Empirical evidence			Explanation of the different findings on Indian and Chinese firms
	Both countries	Unique to India	Unique to China	
Family control	Family control has a positive effect on opportunity-seeking international expansion and market-seeking international expansion. Family-controlled firms are more likely to choose opportunity-seeking international expansion than strategic asset-seeking international expansion. Family control does not affect the likelihood of choosing between market-seeking international expansion and strategic asset-seeking international expansion or between market-seeking international expansion and opportunity-seeking international expansion.	Family control does not affect strategic asset-seeking international expansion.	Family control has a positive effect on strategic asset-seeking international expansion.	Home institutional context matters to international expansion motives, especially interaction and power dynamics between home states and firms. International expansion may be a strategic response to home institutional idiosyncrasies.

2013; Ramanurti & Singh, 2009; Ramamurti, 2012) that influence the drivers of internationalization motives.

Specifically, we find that, in the Chinese and Indian contexts, several home-based heterogeneities are likely to shape EMNEs' international expansion. The first involves the homegrown absorptive capacity of EMNEs. A threshold level of absorptive capacity may be required for R&D to have a significant impact on EMNEs' efforts in seeking strategic assets overseas. In other words, EMNEs exhibit varying levels of technological readiness for international springboarding.

The second heterogeneity involves the risk tolerance of EMNEs, especially with regard to overseas acquisition. Chinese firms acquire overseas assets more aggressively, requiring considerable financial slack, whereas Indian firms acquire assets more incrementally and thus do not require much financial slack. These distinctive patterns at the country level are also reported in prior studies (e.g., Buckley et al., 2007), indicating country-level institutional isomorphism. We suspect that this isomorphism is largely mimetic, as firms follow their domestic peers' approaches to risk.

The third heterogeneity involves home institutional environments, which manifest in cross-country differences in the dominant ownership models, institutional support for international expansion, and power dynamics that play out between firms and governments. Our findings echo prior studies such as Hu et al. (2019) in highlighting the differences between the Chinese and Indian institutional systems.

Limitations and Future Research

This study is subject to one methodological limitation. Because the multinomial logit model does not fit panel data, we treat the data as cross-sectional data, neglecting fixed effects arising from firm-level heterogeneity.

Nevertheless, this replication study highlights several important areas that are worth studying in future research. First, future research should further contextualize EMNE internationalization theory. In addition to changing the country context, future studies could also expand to cover other industries or time periods. Such replication studies would help researchers better characterize country, industry, and time effects on factors that determine international expansion motives. Second, we argue that a sufficient level of absorptive capacity is needed for firms to acquire strategic assets, and both dominant ownership type and home institutional support can influence firms' international expansion choices. Future research designed to ascertain their effects and provide additional relevant empirical evidence is needed. Last but not least, future research should account for other aspects of host country characteristics. In Ahsan et al. (2020) and our replication study, the classification of motives for international expansion is based on resource considerations and the relative advantages of host and home

countries. Host country advantages are measured by reference to strategic factor markets. Future research should extend this line of work to investigate how other aspects, such as institutional and cultural factors, affect factors that determine international expansion motives.

CONCLUSION

We replicate Ahsan et al.'s (2020) study of factors that determine motives for international expansion using a sample of Chinese high-tech manufacturing firms. Several similarities have been found between Chinese firms and Indian firms. For example, firms in both countries that invest in R&D more robustly are likely to exploit their existing ownership advantages in other countries. Financial slack is not associated with opportunity-seeking or market-seeking international expansion. Firms with highly concentrated ownership are less likely to pursue strategic asset-seeking international expansion in both countries. Family-owned firms are more likely than non-family firms to pursue opportunity-seeking and market-seeking international expansion.

In addition to the abovementioned similarities, our findings reveal two main differences between Chinese and Indian firms. First, we find that R&D investment, financial slack, and family control are positively associated with strategic asset-seeking only for Chinese firms, which may result from their greater absorptive capacity, more aggressive pattern of acquisitions when expanding internationally, and unique approach in responding to institutional voids when compared with Indian firms.

Second, the impact of ownership concentration differs greatly for Chinese firms and Indian firms. In India, ownership concentration is negatively associated with strategic asset-seeking international expansion and positively associated with opportunity-seeking international expansion, while in China ownership concentration is negatively associated with both strategic asset-seeking and opportunity-seeking international expansion. Moreover, Indian firms that operate under highly concentrated ownership are more likely to pursue market-seeking international expansion than strategic asset-seeking international expansion. On the other hand, Chinese firms with highly concentrated ownership are more likely to choose strategic asset-seeking international expansion than opportunity-seeking or market-seeking international expansion. We suggest that at least two factors contribute to this heterogeneous result. In China, state ownership makes undertaking risky and long-term objectives more affordable, providing an advantage that private firms in India lack. The other factor may lie in the differential institutional support provided by the Chinese and Indian governments. Governmental support for international expansion may help to reduce the risk associated with seeking strategic assets, making firms with highly concentrated ownership in China more likely to pursue strategic asset-seeking international expansion.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in Open Science Framework at https://osf.io/fhq9n/

NOTES

[1] Ahsan et al. (2020) argue that the positive and significant coefficient of the ownership concentration variable ($\beta = 1.01$, $p = 0.000$) derived from model 3, as reported in Table 5 (this article), supports hypothesis 3b, but we think the argument is invalid.
[2] Ahsan et al. (2020) argue that the coefficient of the family control variable ($\beta = 0.32$, $p = 0.144$) derived from model 7, as reported in Table 6 (this article), is significant, which supports hypothesis 4c. We think that the argument is invalid.
[3] Annual reports and announcements were retrieved from CNINF (www.cninfo.com.cn) – a website that is authorized by the China Securities Regulatory Commission for information disclosure.
[4] We follow Ahsan et al. (2020) to include joint ventures in China in the sample, as joint ventures with foreign firms are important vehicles through which Chinese firms acquire strategic assets from foreign partners.
[5] Data for six host countries/regions are not provided in the Global Competitiveness Report; these countries are Barbados, the Democratic Republic of Congo, the Democratic Republic of Korea (North Korea), Macao SAR (China), Niger, and Uzbekistan. Finally, Macao SAR is regarded as more developed than Mainland China, while Barbados, the Democratic Republic of Congo, the Democratic Republic of Korea, Niger, and Uzbekistan are regarded as less developed than Mainland China.
[6] Based on the CSMAR definition, firms that meet any of the following three criteria are deemed family firms: (1) the actual controller is a single natural person and none of his kinfolk holds shares or serves as a director, supervisor, or senior manager in the listed firm or controlling shareholding company; (2) the actual controllers are multiple natural persons and none of them has kinship to another; meanwhile none of their kinsfolk holds shares or serves as a director, supervisor, or senior manager in the listed firm or controlling shareholding company; (3) the actual controller is from the controlling family and other members of the family hold shares or serve as directors, supervisors, or senior management in the listed firm or controlling shareholding company.
[7] Although the definitions of the *R&D investment* variable for Indian and Chinese firms differ slightly, we think that the values are comparable.

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