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Organizational performance feedback effects and international expansion

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ABSTRACT

Drawing on performance feedback theory to develop the Uppsala internationalization model, we argue that organizational performance relative to managerial aspirations influences firms' foreign expansion propensity as well as the type of country location. Our statistical analysis of foreign entries by Japanese machinery firms between 1976 and 2002 finds that firms performing closer to aspirations were more likely to enter foreign countries than those that under- or out-performed. Underperforming firms were also more likely to enter countries with greater cultural and geographic proximity to those in which they had already invested. Our findings contribute to international business research by identifying organizational performance conditions under which firms tend to adopt an incremental approach to foreign expansion, or else a comparatively radical one of selecting more distant or unfamiliar countries.

"*Mr. Schultz [the CEO of Starbucks] says the company has turned its fortunes around, allowing it to now shift its attention to international markets.*"

Wall Street Journal, 04/14/2010

"*Virginia-based AES Corp., which has missed its recent earnings targets, has scaled back its expansion goals and is selling some of its foreign assets.*"

Wall Street Journal, 11/30/2001

1. Introduction

International expansion is often cited as a means by which firms can improve financial performance. Investments in new jurisdictions enable firms to achieve global economies of scale, access local endowments, technologies and markets, as well as exploit proprietary knowledge, all of which have the potential to yield greater profits and growth rates. Entering foreign countries, however, is a risky proposition as the well-documented losses, and eventual exits of AES Corporation in Georgia, Tesco in Japan, and Wal-Mart in Germany, all of whom were successful in their home markets, illustrate (Christopherson, 2007; Sonne, 2012; Zaheer, 1995).

A dominant theory of firm internationalization – the Uppsala model (Johanson & Vahlne, 1977, 1990, 2009) – argues that firms assess and respond to foreign entry opportunities and risks by drawing on prior organizational experience: prior international experience reduces uncertainty about market environments in a jurisdiction, increasing the attractiveness of investing further in existing foreign markets or of entering new countries similar to those in which the firm is already experienced (Eriksson, Johanson, Majkgard, & Sharma, 1997; Figueira-de-Lemos, Johanson, & Vahlne, 2011). Empirical studies have provided support for the thesis that prior experience abroad positively stimulates re-investment as well as entry into similar countries (Barkema, Bell, & Pennings, 1996; Casillas & Moreno-Menendez, 2014; Chang, 1995; Jiang et al., forthcoming; Mitra & Golder, 2002).

While the Uppsala model provides insights into how organizational experience can shape firms' international expansion, it does not account for managerial cognitive mechanisms that may influence how risk-reward tradeoffs are evaluated in the context of foreign entry. Here, we build on the Uppsala model by adopting a cognitive approach to managerial decision-making (March & Shapira, 1987; Shapira, 1995), drawing specifically on performance feedback theory (Cyert & March, 1963; Greve, 2003b). Highlighted as one of the key domains of organization theory development in a recent review (Lounsbury & Beckman, 2015), performance feedback research proposes that managerial propensity to undertake organizational change and to assume new risks depends, in part, on organizational performance relative to managerial aspirations. An aspiration has been defined as "the smallest outcome that would be deemed satisfactory by the decision maker" (Schneider, 1992, p. 1053). In this view, divergence of actual performance from aspiration levels of performance affects managerial allocation of attention, the scope of search for alternative courses of action, learning behavior, and willingness to make risky change.

In this study, we focus on two critical aspects of

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internationalization, namely the overall propensity for foreign expansion and the choice of investment location. We argue that as performance either increases above or decreases below aspiration levels, firms become less likely to enter foreign countries. Performance that exceeds aspiration levels can increase managerial resistance to change proposals, diminishing the willingness to search for and undertake new foreign ventures. On the other hand, while performance that falls short of aspiration levels may motivate managers to change their strategic tactics (Lages, Jap, & Griffith, 2008; Lages, Mata, & Griffith, 2013), constraints on organizational resources and restrictions on information processing – which become more acute as performance deteriorates – tend to inhibit new foreign entries (D'Aveni, 1989; McDonald & Westphal, 2003; Ocasio, 1995; Staw, Sandelands, & Dutton, 1981). Hence, firms are most likely to enter new countries when performance is close to aspirations. We argue that performance also influences the *types* of country that firms are likely to enter: as performance diverges further from aspiration levels, managers tend to increasingly rely on prior organizational experience to guide foreign location choices, selecting countries that are culturally more similar and geographically more proximate to existing subsidiary locations.

We test our predictions using data on new entries into foreign countries by the population of firms in the Japanese machinery industry over a 26-year period. Consistent with our expectations, we found a robust relationship between financial performance relative to aspiration levels and foreign entry propensity: firms were most likely to enter new countries when performance was close to historical or social aspiration levels, and to forego international expansion when performance was significantly below or significantly above aspirations. In addition, when performance is below aspiration levels, firms tended to concentrate new entries in countries that were culturally and/or geographically closer to their existing country locations.

Responding to calls for more research on decision-making heuristics in the process of MNE foreign expansion (Aharoni, Tihanyi, & Connelly, 2011), our analysis contributes to international business research by developing novel predictions that use a cognitive approach to managerial decision-making to examine how firms assess and respond to the risks of entering new foreign countries. We provide empirical evidence that organizational performance relative to aspirations, which shapes managerial attitudes towards risk and organizational change, influences foreign entry propensity and country location choices. Overall, our findings suggest that cognitive influences on managerial risk-taking can have substantive implications for the dynamics of firms' internationalization processes, a rich topic for further research.

2. Theoretical background and hypothesis development

2.1. Theoretical background

Building on the behavioral theory of the firm (Cyert & March, 1963), the Uppsala model portrays firm internationalization as an incremental process driven by the interplay between experiential learning about foreign markets and organizational commitment of resources (Figueira-de-Lemos et al., 2011; Johanson & Vahlne, 1977). Initially, when firms have little experience in or knowledge of foreign markets, they tend to mitigate foreign investment risks by entering countries that are culturally similar and geographically closer to their home. As firms gradually learn from experience how to operate in foreign environments, they search for new opportunities and expand into locales that are similar to prior entries, but which may be increasingly distant from their original home country (Casillas & Moreno-Menendez, 2014; Johanson & Wiedersheim-Paul, 1975; Mitra & Golder, 2002). In this paradigm, organizational learning founded on search in the neighborhood of prior experience is the prime driver of strategic change.

The Uppsala model is consistent with Cyert and March's (1963) view of managerial decision-making that business managers are often risk averse and "avoid risk by using short-run reaction to short-run feedback rather than anticipation of future events" (March & Shapira, 1987, p. 1410). Most internationalization research also assumes managerial risk aversion, predicting that firms tend to commit greater resources to international markets when uncertainty about foreign markets is reduced as a result of knowledge accumulation (Figueira-de-Lemos et al., 2011). Although scholars have noted that underlying risk preferences or tolerances may in fact vary (Johanson & Vahlne, 1977, p. 30), empirical research in the field has largely overlooked antecedents that may cause a shift in attitudes towards risk and organizational change.

By contrast, a considerable body of research has examined the cognitive foundations of managerial decision-making and the factors that affect how managers perceive, assess, and respond to change proposals (Gavetti, Greve, Levinthal, & Ocasio, 2012; March & Shapira, 1987). In particular, performance feedback theory argues that an organization's performance relative to aspiration levels affects managerial interpretation of whether performance is deemed satisfactory, and therefore regulates managerial risk preferences and acceptance of risky alternatives (Greve, 2003b). Organizational performance can thus shift managerial risk thresholds when performance exceeds or falls short of aspirations, either stimulating or deterring risk-taking behavior.

Performance feedback research has also explored how managerial search routines and learning behaviors are conditioned by organizational performance relative to aspirations, arguing that cognitive factors can generate biases in how managers discover and interpret information (Audia, Locke, & Smith, 2000; Baum & Dahlin, 2007). For instance, information derived from prior organizational experience may be evaluated quite differently, depending on whether performance is deemed to be satisfactory or unsatisfactory, yielding varying predictions about the impact of prior experience on subsequent organizational change. In comparison, the Uppsala model assumes that organizational learning and search processes occur in a quasi-automatic fashion, in which managers absorb new knowledge arising from international experience, and then proceed to search for and evaluate new foreign investment opportunities (Johanson & Vahlne, 1990).

While performance feedback theory has yielded new insights into several dimensions of organizational strategy such as R&D investment (Alessandri & Pattit, 2014; Chen & Miller, 2007), capital expenditure (Audia & Greve, 2006; Desai, 2008) and acquisitions and alliances (Lohrke, Kreiser, & Weaver, 2006; Ruth, Iyer, & Sharp, 2013), it has not yet been applied to internationalization process. A few studies have examined how MNEs' domestic market share and corporate financial performance influence the overall degree of geographic diversification (Jung & Bansal, 2009; Mascarenhas, 1986; Rose & Ito, 2008). Scholars have also explored how changes in export performance affect international marketing tactics, such as product adaptation and pricing (Lages et al., 2008; Lages et al., 2013). However, none have theorized how performance relative to aspiration levels affects foreign country entry, an important yet typically complex and risky component of MNE strategy. Therefore, incorporating a performance feedback perspective into the analysis of foreign expansion decisions can not only shed new light on the development of a firm's internationalization path, but also extend the domain of extant performance feedback research.

2.2. The impact of organizational performance relative to aspirations on foreign entry

The performance feedback literature argues that when organizational performance exceeds socially- or historically-determined aspiration levels, managerial openness to organizational change tends to diminish. Socially-based aspirations are organizational targets for performance determined by comparisons with the performance of peer firms (such as firms in the same industry), while historically-based aspirations are performance targets benchmarked against a firm's own performance record over previous periods (Greve, 1998).

In outperforming firms managers are argued to become resistant to change for cognitive reasons such as increased risk aversion (Shinkle,

2012) and enhanced confidence in the effectiveness of extant strategies (Audia et al., 2000). Even if such firms have 'slack' or excess assets that relax financial constraints (Alessandri & Pattit, 2014; Greve, 2003b), managers tend to put less weight on probabilistic positive outcomes and more weight on negative outcomes that may change the firm's successful status (March & Shapira, 1987; Shapira, 1995). The general pattern emerging from empirical studies suggests that a period of satisfactory performance leads to more conservative behavior and strategic inertia, because the danger of falling below aspiration levels dominates managerial attention (Greve, 1998; Miller, 1994).

International foreign entry decisions are especially susceptible to the cognitive biases that outperformance engenders. Investment in a foreign country is a significant organizational change, requiring managers to adapt established routines and capabilities to new institutional environments, and to integrate new subsidiaries into existing organizational structures that span national boundaries. Transferring tacit organizational knowledge across cultural contexts, as well as across geographically distant countries, can be difficult to effectively achieve (Fang, Jiang, Makino, & Beamish, 2010). Research has identified the "liability of foreignness", the increased risk of organizational failure, that foreign firms confront when entering new countries (Zaheer, 1995). Hence, if managers are averse to new risks or are confident in the organization's existing strategy – as is more likely to be the case when performance is deemed successful – they will be reluctant to enter new countries.

In addition, performance feedback research suggests that performance above aspirations reduces managerial motivations to seek new information and to scan the external environment, resulting in fewer strategic alternatives being generated and considered (Chen & Miller, 2007). MNE managers thus will be less likely to actively search for and to learn about new foreign investment opportunities when firm financial performance is deemed to be exceeding aspirations. At the same time, the value of new information about international initiatives tends to be regarded as diminished when extant strategies are associated with successful performance, further deterring external monitoring and search (Audia et al., 2000; Miller, 1994).

In sum, as performance exceeds managerial aspiration levels, we predict that firms become less likely to search for or engage in new foreign investment. Hence, we predict:

H1a. The likelihood of a firm entering a foreign country decreases as performance increases above aspiration levels.

Performance below aspirations has a more complex and nuanced set of organizational effects. While some scholars argue that underperformance can stimulate problemistic search and induce a higher rate of organizational change as managers pursue new performance-improvement alternatives (Gavetti et al., 2012; Lages et al., 2008), others contend that underperformance leads to structural rigidity and fewer changes (D'Aveni, 1989; March & Shapira, 1992; Staw et al., 1981). Shapira (1995) emphasized that unsatisfactory performance is associated with an increased focus on asset preservation and organizational survival and restrictions on experimentation – reducing the willingness to adopt change initiatives that require substantial resources, such as mergers and acquisitions (Iyer & Miller, 2008) and capacity expansion (Audia & Greve, 2006; Desai, 2008). Organizational search can also become more restricted during periods of unsatisfactory performance. Managers, seeking affirmation of core organizational practices, tend to focus more narrowly on information from familiar sources and on information that is consistent with pre-existing organizational knowledge (McDonald & Westphal, 2003; Ocasio, 1995). In addition, managers may strive to reduce information complexity in underperforming firms by limiting the variety of channels monitored, and by prioritizing information that fits existing cognitive categories and frames, further impeding the likelihood that novel alternatives will receive consideration (Staw et al., 1981).

In the case of international investment, we argue that the net effect of organizational underperformance on entry propensity is likely to be negative for two reasons. First, foreign expansion typically requires significant financial and managerial commitment and thus is likely to be constrained by the tendency for underperforming firms to preserve their resources. The risk of organizational failure and bankruptcy is greater for underperforming firms, discouraging managers from risking new foreign commitments. Consistent with this, empirical studies of foreign direct investment have found that performance decline is associated with diminished rates of foreign expansion (Denison, Dutton, Kahn, & Hart, 1996; Rose & Ito, 2008).

Second, when the scope of managerial perspectives narrows during periods of underperformance, managers are more likely to attend to information from existing operations, which is more easily interpreted and rationalized within the context of the firm's extant organizational structure, and to pay less attention to information from potential foreign investment locations. Organizational decision-making about foreign investment tends to be particularly information-intensive and complex given the uncertainties inherent in entering a new country. This makes the consideration of foreign entry susceptible to cognitive biases that favor information regarding familiar, established practices, such as R&D or pricing tactics. Firms are thus less likely to identify and pursue investment opportunities in foreign markets when performance is below aspiration levels.

Drawing these arguments together, we expect that firms are less likely to identify and pursue investment opportunities in foreign markets when performance is below aspiration levels. Hence, we predict:

H1b. The likelihood of a firm entering a foreign country decreases as performance decreases below aspiration levels.

2.3. The impact of performance relative to aspirations and prior experience on foreign entry

In addition to the propensity for international investment, performance relative to aspirations can affect the likelihood of entering certain types of country. The learning mechanism underlying the Uppsala model suggests that organizational experience in a particular type of cultural or geographic environment offers information, resource, and managerial benefits that can be applied to subsequent entry into similar host countries. Because national cultures tend to remain relatively stable over time, firms that have experience in a particular country are assumed to develop culture-specific knowledge of business practices, the institutional environment, and stakeholder behavior, which can augment subsidiary performance in other similar locations (Barkema et al., 1996; Hutzschenreuter & Voll, 2008; Ronen & Shenkar, 2013). Likewise, countries in geographic proximity often share similarities in their patterns of economic development and market characteristics, enabling firms to more easily transfer and exploit location-specific knowledge and resources within these countries (Ambos & Ambos, 2009; Fladmoe-Lindquist & Jacque, 1995; Hansen & Lovas, 2004; Rugman & Verbeke, 2007). Thus, all else equal, firms are more likely to enter new countries that are culturally similar and geographically closer to the ones in which they are already experienced (Arregle, Beamish, & Hebert, 2009; Hansen & Lovas, 2004; Jiang, Holburn, & Beamish, 2016; Schmitt & Van Biesebroeck, 2013).

We argue that organizational performance moderates the positive tendency for firms to build on prior experience when making new country entry decisions. When performance exceeds aspiration levels, managers can become increasingly confident in their inferences about cause-and-effect relationships that link strategy to performance (Audia et al., 2000). A more extensive experiential track record in a familiar cultural or geographic environment may be regarded as being stronger evidence of a positive causal impact on performance in successful firms, further strengthening managerial beliefs in prior strategic choices (Miller, 1994).

An enhanced sense of self-efficacy arising from outperformance and

more prior experience can also diminish the perceived need to seek new information from culturally or geographically less familiar locales. Since the formulation of investment alternatives is grounded in a firm's experiential knowledge (Figueira-de-Lemos et al., 2011), heightened dependence on existing knowledge sources means that potential investment sites are more likely to be identified in countries culturally or spatially proximate to existing markets. Hence, a firm's tendency to cluster new international investments in culturally and geographically familiar locations is magnified as performance exceeds aspiration levels, even though the overall propensity for foreign entry declines. Thus, we predict:

H2a. The positive effect of a firm's prior cultural environment experience on the likelihood of entering a foreign country strengthens as performance increases above aspiration levels.

H2b. The positive effect of a firm's prior geographic environment experience on the likelihood of entering a foreign country strengthens as performance increases above aspiration levels.

We further argue that as performance falls below aspiration levels, the effect of prior experience on new location choices also strengthens, biasing firms further towards entering countries with similar attributes. Experience in culturally or geographically familiar environment becomes particularly salient for underperforming firms since it enhances managerial confidence in the ability to avoid organizational failure or to mitigate post-entry risks by selecting similar countries for entry (Shapira, 1995). Prior experience also yields organizational learning curve benefits – reducing the expected costs of entry – relaxing resource constraints for underperforming firms with respect to expansion into more familiar types of country (Eriksson et al., 1997). In addition, subpar performance, which results in restrictions on information processing, reinforces the tendency for managers in multinational corporations to rely on established heuristics and to avoid exploratory learning and risk-taking, further favoring investment in familiar foreign environments (Audia & Brion, 2007; Bingham, Eisenhardt, & Furr, 2007).

Drawing these arguments together, we expect that firms will be more likely to locate new country entries in culturally and geographically familiar markets when performance falls below aspiration levels. Hence, we propose:

H3a. The positive effect of a firm's prior cultural environment experience on the likelihood of entering a foreign country strengthens as performance decreases below aspiration levels.

H3b. The positive effect of a firm's prior geographic environment experience on the likelihood of entering a foreign country strengthens as performances decreases below aspiration levels.

3. Method

3.1. Sample and data

We test our hypotheses using data on foreign manufacturing investments by the population of 299 Japanese machinery firms over a 26-year period from 1976 to 2002. Machinery firms produce equipment and tools that are employed as inputs over a wide range of industries from automotive vehicles to chemicals. We constructed our sample of firms from the *Japan Company Handbook* (the Handbook) published by Toyo Keizai Inc. The Handbook is a quarterly publication on Japan's public companies that provides financial data, background information, and classifications of more than 30 industry groups. Our sample consists of all companies that belong to one of three industry group classifications: machinery, electric machinery, and precision machinery. The sector accounts for the largest portion (approximately 37%) of Japan's manufacturing outward FDI and has been the focus of much work in internationalization research (Belderbos & Sleuwaegen, 2005; Fukao, Ishido, & Ito, 2003).[1] The high prevalence of outward foreign investment provides significant variation in location choices during the sample period. Because the earliest edition of the Handbook was published in 1976, this is the first year of our dataset. Additional company information was extracted from the *Nikkei Economic Electronic Databank System* (NEEDS).

Our analysis focuses on machinery firms' first entries into a foreign country since initial entries often represent a more significant strategic change than subsequent ones (Benito & Gripsrud, 1992; Chang & Rosenzweig, 2001; Mitra & Golder, 2002). Data on foreign manufacturing subsidiaries was compiled from *Kaigai Shinshutsu Kigyou Souran* (Japanese Overseas Investment) that was available until 2003, which contains information on a subsidiary's parent firm, location, founding year and industry classification. We exclude a small number of subsidiaries that were established in 2003 to avoid potential sampling bias caused by delayed reporting. The median firm in our sample had entered 6 foreign countries.

3.2. Estimation method

We estimate the probability of a firm entering a specific country in a given year using a rare event logit model (King & Zeng, 2001), which is appropriate when (a) the focal explanatory variables (aspiration-adjusted performance here) are at the chooser (firm) level, and (b) the proportion of entry events to non-entry observations is small. While the conditional logit model is sometimes used in location choice studies, it is not feasible in this context since it cannot incorporate chooser characteristics, i.e. performance relative to aspirations. The rare event logit model supplemented by a choice-based sampling procedure corrects potential estimation bias due to the rare event structure. Following recent application of this technique (Cockburn & MacGarvie, 2011; Folta & O'Brien, 2004; Singh, 2005), we derived a sample consisting of all entry events and randomly selected non-entry observations. For each entry event, ten non-entry firm-country-year observations from the same year were included. The rare event logit model is estimated using a Bayesian approach with year fixed effects and robust standard errors clustered by parent firm.

3.3. Measures

3.3.1. Dependent variable

The dependent variable – *Entry* – is a binary variable that equals one if a firm entered a new country and zero otherwise. We examine foreign entries over two-year periods to address the practical issue of time lag in implementing investment decisions. Firm-country-year observations following an initial entry are dropped.

3.3.2. Independent variables

We create two measures of performance relative to aspirations – *Performance Below Aspirations* and *Performance Above Aspirations* – to explore the behavioral patterns associated with historically- and socially-constructed aspirations (Baum & Dahlin, 2007; Chen & Miller, 2007; Greve, 1998). Following prior studies, we employ a spline function to specify the models, which allows for the estimation of different slopes both above and below a predetermined knot (Greene, 2003). *Performance Below Aspirations* and *Performance Above Aspirations* are respectively defined for social aspirations and, separately, for historical aspirations as:

[1] Ministry of Finance Japan. "Outward Direct Investment (Industry & Region)" (Accessed on October 26, 2014, http://www.mof.go.jp/english/international_policy/reference/itn_transactions_in_securities/fdi/).

$$\textit{Performance Below Aspirations} = \begin{cases} 0, & \textit{if Performance} \geq \textit{Historical (Social) Aspiration} \\ \textit{Performance} - \textit{Historical (Social) Aspiration}, & \textit{if Performance} < \textit{Historical (Social) Aspiration} \end{cases}$$

$$\textit{Performance Above Aspirations} = \begin{cases} \textit{Performance} - \textit{Historical (Social) Aspiration}, & \textit{if Performance} \geq \textit{Historical (Social) Aspiration} \\ 0, & \textit{if Performance} < \textit{Historical (Social) Aspiration} \end{cases}$$

We use financial measures of return on assets (ROA) to construct relative performance variables over time and between peer firms (our results are robust compared to alternatively using a return on sales measure). Historical aspiration is computed as the exponentially-weighted moving average of a firm's previous performance, dating back to 1971, using the formula:

$$\textit{Historical Aspiration}_t = \alpha \times \textit{Performance}_{t-1} + (1 - \alpha) \times \textit{Historical Aspiration}_{t-1}$$

where α is the weight given to the latest performance, reflecting how quickly aspiration levels are updated (Lant, 1992). Models using different α values (from 0.1 to 0.9 at increments of 0.1) had highly consistent coefficient estimates. We report the analysis using $\alpha = 0.3$, which yields the best model fit and is typical of the values used in prior studies. Prior empirical work has used values of α that imply organizations do not update aspirations too rapidly in response to performance fluctuations. Chen (2008) uses $\alpha = 0.4$ and Baum and Dahlin (2007) use $\alpha = 0.2$ in their primary specifications, while Greve (1998) and Greve (2003a) use values of 0.1 and 0.5, respectively. *Social Aspiration* is measured as an average of the performance of peer firms in the same industry group, excluding the focal firm. Industry group was defined by the NEEDS 6-digit industry code, which is analogous to NAICS industry definitions. *Historical* and *Social Aspirations* are intermediate constructs that are used to create the primary variables of interest, *Performance Below Aspirations* and *Performance Above Aspirations*.

Following the operationalization strategy of previous studies (Alfaro, Kalemli-Ozcan, & Volosovych, 2008; Mitra & Golder, 2002; Nachum, Zaheer, & Gross, 2008), we create firm-country-year specific variables – *Cultural Experience* and *Geographic Experience* – using the following formulas:

$$\textit{Cultural Experience}_{it} = \sum_1^J \left[\ln(1 + \textit{Prior Entries}_{jt}) \times \frac{\textit{Cultural Distance}_{ij}^{-1}}{\sum_1^j \textit{Cultural Distance}_{ij}^{-1}} \right]$$

$$\textit{Geographic Experience}_{it} = \sum_1^J \left[\ln(1 + \textit{Prior Entries}_{jt}) \times \frac{\textit{Geographic Distance}_{ij}^{-1}}{\sum_1^j \textit{Geographic Distance}_{ij}^{-1}} \right]$$

The two variables sum up the log-transferred number of a firm's prior entries, weighting them by the inverse of either the geographic distance or the cultural distance of the focal potential host country from all other countries in our sample. '$\textit{Prior Entries}_{jt}$' is the count of previous subsidiaries established by the firm in the host country *j* by year *t*. '$\textit{Cultural Distance}_{ij}$' is the cultural distance between the focal host country *i* and country *j*, measured using Hofstede's (2001) data and Kogut and Singh's (1988) operationalization approach. '$\textit{Geographic Distance}_{ij}$' is the distance in thousands of kilometers from the most populated city of the focal host country *i* to that of country *j*.

3.3.3. Control variables

We control for country-level factors that may influence foreign investment decisions. *GDP* and *GDP* per capita, adjusted for purchasing power parity, are proxies for market size and a country's prosperity. *FDI as a percentage of GDP* captures a country's overall attractiveness to foreign investors. *Rule of Law*, as constructed by Kaufmann, Kraay, and Mastruzzi (1996–2007), gauges the level of legal and contractual protection of private property in a host country. *Geographic Distance*, measured in thousands of kilometers between Tokyo and the most populated city in a country, may deter inward FDI. *Cultural Distance* between home and host countries has also been associated with lower levels of foreign investment (Kogut & Singh, 1988). Including *Previous Entries*, the logged count of worldwide manufacturing entries by a firm in the preceding three-year period, helps address autocorrelation in foreign expansion propensity. We also include *Geographic Diversification*, measured as the number of host countries in which a firm had previously invested to control for the impact of a firm's overall propensity to internationalize.

Firm Size, measured as the logarithm of employment, has been associated with a greater propensity to invest abroad. *Export Ratio* and *Increase in Export Ratio* control for firms' export activities as potential alternatives to FDI. We also incorporate two measures of 'slack resources' or the financial capacity for undertaking foreign investment: the *SAG-Sales Ratio* is calculated as the ratio of selling, general, and administrative expenses to sales; and *Quick Assets-Debt Ratio* is the ratio of quick assets to total liabilities. In addition, we include industry group fixed effects using dummy variables and a measure of *Industry Concentration* using Herfindahl index in each industry group to account for industry-level influence on firm foreign expansion decisions.

Our final dataset consists of 299 parent firms and 1739 entries in 44 country markets. Thirteen country locations account for approximately 75% of entries – China, France, Germany, Indonesia, Malaysia, Mexico, Philippines, Singapore, South Korea, Taiwan, Thailand, United Kingdom, and the United States. Our dataset includes all countries that were potential investment locations during our sample period and for which data is available for all variables (69 countries in total). All time-varying independent and control variables are lagged by one year to address the issue of contemporaneous correlation. Descriptive statistics and correlations are shown in Table 1.

4. Results

Table 2 reports the rare event logit model results for separate specifications with social and historical aspirations. Model 1 is a baseline model that includes control variables only. Models 2 and 6 test H1a and H1b regarding the main effect of performance relative to social and historical aspiration levels. Models 3, 4, 7, and 8 examine the interaction effects by adding the interactions of relative performance and cultural and geographic experiences. Models 5 and 9 are the full models with all variables. The estimated effects of control variables are largely signed as expected: all else being equal, firms are more likely to invest in countries that are geographically closer and culturally similar to their home country and in those that have a stronger rule of law, a larger economy, and relatively greater inward FDI flows.

Several statistically significant coefficient estimates of interaction terms in partial models become non-significant in full models. This may be observed because the full models include multiple interactions associated with the same variables. Additional analysis indicates that the highest VIFs in Models 5 and 9 are 5.22 and 5.19 respectively. Although the usual threshold value is 5 or 10, some researchers suggest that a VIF over 2.5 is a reason for concern for multicollinearity (Allison, 1999). In addition, condition numbers – another diagnostic measure for multicollinearity – in Models 5 and 9 are 54.3 and 54.4 respectively. A value greater than 30 typically signals concern for multicollinearity (Hair, Black, Babin, Anderson, & Tatham, 2006). Yet, the full models still provide additional information about the influence of various variables as a whole. Therefore, following prior studies (Chen, Chittoor, & Vissa, 2015; Desai, 2015; Marquis & Huang, 2010; Pahnke, McDonald, Wang, & Hallen, 2015), we refer to the partial models to test hypotheses and incorporate the results from the full models as a robustness check.

Interpreting coefficients on interaction terms (as in H2a/H2b and H3a/H3b) in non-linear models such as logit is not straightforward since the standard errors do not provide direct information about the statistical significance of the conditional effects of interest (Hoetker,

Table 1
Descriptive statistics and bivariate correlations.

Variable		Mean	S. D.	Min	Max	1	2	3	4	5	6	7	8	9	10
1	Entry	0.01	0.07	0.00	1.00										
2	Performance below aspirations (social)	−0.02	0.05	−1.78	0.00	0.011									
3	Performance above aspirations (social)	0.02	0.03	0.00	0.38	−0.002	0.233								
4	Performance below aspirations (historical)	−0.02	0.05	−1.54	0.00	0.004	0.808	0.122							
5	Performance above aspirations (historical)	0.01	0.03	0.00	0.61	−0.011	0.116	0.385	0.194						
6	Cultural experience	0.08	0.12	0.00	1.45	0.067	0.064	0.018	0.008	−0.069					
7	Geographic experience	0.09	0.14	0.00	2.28	0.039	0.054	0.010	0.011	−0.060	0.712				
8	GDP	0.32	0.76	0.00	9.77	0.077	−0.001	0.014	−0.019	−0.017	0.033	0.085			
9	GDP per capita	8.65	7.26	0.20	34.36	−0.004	0.006	0.027	−0.045	−0.046	0.142	0.245	0.276		
10	FDI as percentage of GDP	2.14	4.36	−12.2	92.67	0.004	−0.005	0.047	−0.039	−0.018	0.109	0.068	−0.034	0.268	
11	Geographic diversification	3.04	3.75	0.00	26.00	0.039	0.093	0.037	0.028	−0.087	0.746	0.645	0.010	0.088	0.072
12	Geographic distance	9.78	3.77	1.16	18.55	−0.066	0.001	0.000	0.003	0.001	−0.113	−0.027	−0.066	−0.134	−0.031
13	Cultural distance	3.07	1.64	0.65	8.89	0.005	−0.001	−0.002	0.006	0.007	0.040	−0.017	−0.087	0.180	0.100
14	Rule of law	0.60	1.01	−1.30	2.36	0.009	−0.002	−0.004	0.008	0.007	0.070	0.190	0.124	0.763	0.151
15	Previous entries (3 years)	0.46	0.64	0.00	3.22	0.039	0.089	0.009	0.025	−0.103	0.572	0.491	−0.004	0.045	0.005
16	Firm size	7.56	1.09	0.69	11.31	0.043	0.123	−0.027	0.118	−0.092	0.571	0.485	−0.040	−0.058	−0.055
17	Export ratio	0.25	0.20	0.00	1.00	0.012	−0.055	0.143	−0.101	0.038	0.293	0.221	0.006	0.031	0.044
18	Increase in export ratio	0.01	0.05	−0.49	0.55	0.003	0.087	0.045	0.071	0.036	0.054	0.045	0.005	0.020	0.026
19	SAG-sales ratio	0.17	0.08	0.03	0.66	−0.004	−0.037	0.008	−0.144	−0.079	0.096	0.063	0.019	0.042	0.030
20	Quick assets-debt ratio	1.07	0.90	0.03	16.98	0.000	0.156	0.371	−0.059	−0.070	−0.041	−0.041	0.025	0.061	0.040
21	Industry concentration	0.06	0.01	0.05	0.11	−0.010	0.002	−0.020	0.034	0.001	−0.044	−0.051	−0.024	−0.062	−0.019

Variable		11	12	13	14	15	16	17	18	19	20
12	Geographic distance	0.017									
13	Cultural distance	−0.011	−0.203								
14	Rule of law	−0.019	−0.206	0.320							
15	Previous entries (3 years)	0.726	0.014	−0.009	−0.012						
16	Firm size	0.607	0.014	0.005	0.003	0.516					
17	Export ratio	0.212	0.005	−0.002	−0.006	0.154	0.147				
18	Increase in export ratio	0.071	0.001	−0.002	−0.005	0.034	0.036	−0.085			
19	SAG-sales ratio	0.003	−0.003	−0.005	−0.009	−0.025	−0.008	−0.072	0.018		
20	Quick assets-debt ratio	−0.021	−0.004	−0.008	−0.009	−0.012	−0.183	0.034	0.047	0.096	
21	Industry concentration	−0.135	0.001	0.090	0.007	−0.115	−0.027	0.089	−0.011	0.010	−0.100

N = 327,942; Correlations with absolute values > 0.004 are significant at the $p < 0.05$.

2007). Thus, in addition to reporting coefficient estimates and their statistical significance levels in Table 2, we use a simulation-based approach that constructs confidence intervals based on a simulated distribution to assess the effect of our independent variables and their interactions on the probability of entry (Holburn & Zelner, 2010; King, Tomz, & Wittenberg, 2000; Zelner, 2009). We performed the simulations using the CLARIFY software, which converts the results of the rare event logit model into changes in predicated probabilities (Tomz, Wittenberg, & King, 2001).

H1a and H1b predict that firms are less likely to invest in a foreign country when their performance deviates either above or below aspiration levels. Diagrams 1a and 1b in Fig. 1 (based on Models 2 and 6) depict the estimated entry probabilities at different levels of organizational performance in relation to social and historical aspirations, respectively. A solid line in the graphs represents a statistically significant coefficient estimate at the 5% level while a dashed line represents a statistically insignificant coefficient estimate. The graphs show that, as corporate performance either falls below, or increases above, social and historical aspiration levels, the probability of foreign market entry decreases. The economic magnitude of the influence of the relative performance variables is also meaningful. For instance, when *Performance Below Aspirations* (*Social*) ($p < 0.01$) decreases by one standard deviation below its mean, the probability of foreign market entry declines by 26%. Similarly, the entry probability decreases by 12% when *Performance Above Aspirations* (*Social*) ($p < 0.05$) increases by one standard deviation above its mean. Firms are thus most likely to enter a foreign market when performance meets aspiration levels. These results provide strong support for H1a and H1b.

H2a and H2b proposes that the impact of prior experience obtained in culturally and geographically proximate environments on the entry decision for a country is stronger when a firm's performance increases above aspiration levels. H3a and H3b analogously predict that the effect of prior experience on entry decisions is greater when a firm's performance decreases below aspiration levels. Diagrams 2a and 2b in Fig. 2 (based on Models 3 and 7) depict the changes in simulated entry probability when *Cultural Experience* increases by one standard deviation from its mean, evaluated at different values of relative performance.

We find mixed results for H2b when corporate performance improves above aspiration levels. While one coefficient estimate is statistically significant (Model 7), the other is non-significant though signed as expected (Model 3). The coefficient estimates are not statistically significant in the full models. Thus, only partial support for H2a can be inferred. One possible explanation for the weaker interaction effect in firms with above-aspiration performance is that more exploratory search driven by organizational slack resources may attenuate the tendency to exploit prior experience (Shinkle, 2012).

Consistent with our predictions in H3a, the effect of *Cultural Experience* on entry probability is greater for firms whose performance is further below aspiration levels. The interactions are statistically significant in both partial and full specifications (Models 3, 5, 7, and 9). When *Performance Below Aspirations* (*Social*) is equal to its mean, increasing *Cultural Experience* by one standard deviation from its mean increases the entry probability for a host country by 24%. But when *Performance Below Aspirations* (*Social*) is equal to one standard deviation below its mean value, increasing *Cultural Experience* by one standard deviation from its mean increases the entry probability by 71%, a significantly greater magnitude. A similar relationship is evident in the case of historical aspirations. Thus, H3a is strongly supported.

In the case of *Geographic Experience*, the interaction term is only

Table 2
Rare event logit models of entry decision.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
	Baseline	Social aspiration				Historical aspiration			
Performance below aspirations		5.6**	14.27**	9.48**	14.47**	2.31†	5.83**	3.46*	5.54**
		(1.73)	(2.2)	(2.45)	(2.3)	(1.35)	(1.62)	(1.7)	(1.63)
Performance above aspirations		−3.66*	−4.93**	−3.96*	−4.84**	−4.69*	−9.05**	−7.86**	−9.48**
		(1.62)	(1.8)	(1.64)	(1.75)	(2.24)	(2.91)	(2.67)	(3.03)
Cultural experience	0.3**	0.3**	0.23**	0.3**	0.23**	0.3**	0.25**	0.31**	0.24**
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)
Geographic experience	−0.04	−0.04	−0.04	−0.08†	−0.04	−0.04	−0.04	−0.08†	−0.03
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)
Performance below aspirations X cultural experience			−6.2**		−5.78**		−2.5**		−3.43**
			(0.82)		(1.1)		(0.67)		(1.15)
Performance above aspirations X cultural experience			0.85		1.12		4.17*		2.75
			(0.98)		(1.45)		(2)		(2.01)
Performance below aspirations X geographic experience				−2.87**	−0.61			−0.96	1.32
				(1.06)	(1.16)			(0.66)	(1.23)
Performance above aspirations X geographic experience				0.08	−0.38			2.4†	2.16
				(0.94)	(1.45)			(1.43)	(1.43)
GDP	0.7**	0.71**	0.71**	0.71**	0.71**	0.7**	0.7**	0.7**	0.71**
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
GDP per capita	−0.14**	−0.14**	−0.14**	−0.14**	−0.14**	−0.14**	−0.14**	−0.14**	−0.14**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
FDI as percentage of GDP	0.04**	0.04**	0.04**	0.04**	0.04**	0.04**	0.04**	0.04**	0.04**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Geographic diversification	−0.04	−0.04	−0.03	−0.03	−0.03	−0.04	−0.04	−0.04	−0.04
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Geographic distance	−0.21**	−0.21**	−0.21**	−0.21**	−0.21**	−0.21**	−0.2**	−0.21**	−0.21**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Cultural distance	−0.07*	−0.07*	−0.07*	−0.07*	−0.07*	−0.07*	−0.07*	−0.07*	−0.07*
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Rule of law	0.82**	0.83**	0.83**	0.83**	0.83**	0.82**	0.82**	0.82**	0.81**
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Previous entries (3 years)	0.21*	0.2*	0.19*	0.18*	0.19*	0.2*	0.21*	0.2*	0.21*
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Firm size	0.23**	0.22**	0.21**	0.22**	0.21**	0.22**	0.21**	0.22**	0.21**
	(0.07)	(0.07)	(0.06)	(0.07)	(0.06)	(0.07)	(0.07)	(0.07)	(0.07)
Export ratio	0.31	0.41†	0.35†	0.35†	0.34†	0.36†	0.34†	0.35†	0.34
	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)
Increase in export ratio	1.99**	2.05**	2.05**	2.09**	2.06**	1.99**	2.11**	2.02**	2.1**
	(0.56)	(0.58)	(0.58)	(0.57)	(0.58)	(0.57)	(0.57)	(0.57)	(0.57)
SAG-sales ratio	−0.98	−0.97	−0.92	−0.98†	−0.93	−0.9	−0.86	−0.89	−0.89
	(0.61)	(0.62)	(0.59)	(0.6)	(0.59)	(0.62)	(0.63)	(0.63)	(0.63)
Quick assets-debt ratio	0.14**	0.14**	0.14**	0.15**	0.14**	0.14**	0.14**	0.14**	0.14**
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Industry concentration	−3.85	−3.92	−4.29	−3.75	−4.28	−4.16	−4.03	−3.99	−3.95
	(3.72)	(3.72)	(3.6)	(3.63)	(3.6)	(3.7)	(3.68)	(3.67)	(3.67)
Observations	19,129	19,129	19,129	19,129	19,129	19,129	19,129	19,129	19,129

Standard errors in parentheses.
† $p < 0.10$.
* $p < 0.05$
** $p < 0.01$.

marginally significant when performance increases above aspiration levels (Model 8) and non-significant in the full model (Model 9). Thus, H2b is not supported. However, as with the case of *Cultural Experience*, we find that its positive effect is greater when performance falls further below aspirations (Model 4). When *Performance Below Aspirations* (*Social*) is equal to its mean value, increasing *Geographic Experience* by one standard deviation from its mean increases the entry probability by 16%. But when *Performance Below Aspirations* (*Social*) is equal to one standard deviation below its mean, increasing *Geographic Experience* by one standard deviation from its mean increases the entry probability by 42%.[2] However, the interaction becomes non-significant in the full model (Model 5). We interpret this pattern of findings as moderate support for H3b. Estimated results using the historically-constructed aspirations measure are signed as predicted but are marginally statistically significant (Model 8).

4.1. Robustness of results

We conduct additional analyses to assess the robustness of our results. We exclude observations with the lowest 1% of performance relative to aspirations since extreme underperformers may lack the financial resources required to support international entry, irrespective of managerial attitudes towards strategic change, potentially skewing the estimated results when using the full population sample (Hu, Blettner, & Bettis, 2011). We substitute in a different measure of social aspiration levels using the averages of the top 10, 20, 30, 40, or 50% performers within a particular industry group, as suggested by prior research (Giachetti & Lampel, 2010). We use alternative measures of prior organizational experience in cultural and geographic environments that are based on categorical rather than continuous measures of proximity. *Cultural Experience* is alternatively calculated as the logged count of subsidiaries ever established by the firm in countries from the same cultural cluster, excluding the focal country. We utilize the

[2] Graphs are omitted due to space constraints and are available upon request.

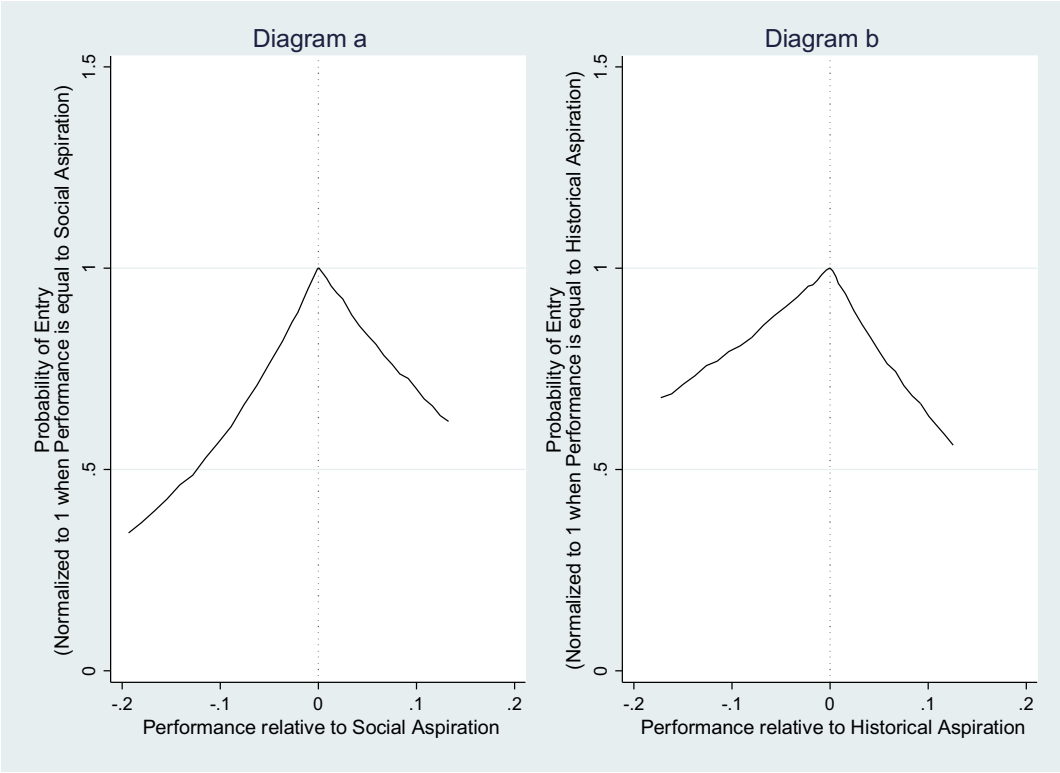

Fig. 1. The impact of performance relative to aspirations on entry probability.

cultural mapping developed by Ronen and Shenkar (2013), which classifies countries into ten groups with similar cultures. *Geographic Experience* is alternatively measured as the logged count of subsidiaries established in the same geographic region, excluding the focal host country. We use the classifications of the World Bank and the United Nations to categorize countries into seven regions.

We also use alternative measures of governance quality in place of the *Rule of Law* variable, namely Government Effectiveness, Political

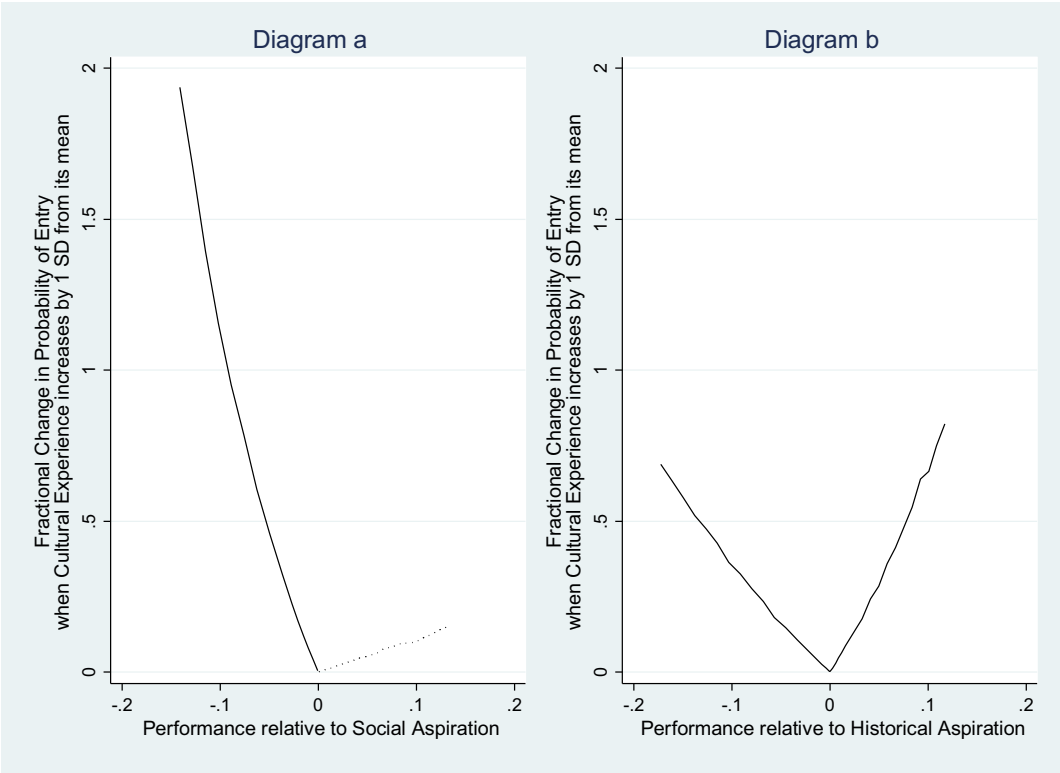

Fig. 2. The impact of cultural experience on entry probability, conditional on performance relative to aspirations.

Stability, Regulatory Quality, Voice and Accountability, and Control of Corruption (Kaufmann et al., 1996–2007). Finally, to address potential endogeneity concerns, we use a traditional logit model with firm fixed effects instead of the rare event logit model. In each of these cases, the results (available upon request) are similar to those in our preferred specifications, indicating a degree of robustness.

5. Discussion

Research on performance feedback and research on firm internationalization process share a common emphasis on risk and experiential learning. This commonality offers an opportunity to extend the performance feedback model to the study of when and how firms expand abroad. This study is one of the first attempts to examine the impact of performance feedback on foreign entry decisions using explicit modeling of historically- and socially-constructed performance aspirations.

Our statistical analysis of foreign manufacturing entries by Japanese machinery firms supports the thesis that organizational performance relative to managerial aspirations can profoundly shape firms' internationalization process, affecting both the propensity to enter foreign countries as well as the type of country chosen. Empirically, we find that firms are most likely to invest abroad when performance is close to socially- and historically-constructed aspirations, and to abstain when performance is substantially below or above aspirations. The tendency to build on prior investment experience by locating new foreign investments in culturally and geographically familiar countries increases especially when organizational performance is sub-par.

Our study makes several contributions to research on firms' foreign investment strategy. First, by drawing on performance feedback theory to relax assumptions in the Uppsala model about managerial risk preferences and learning processes, we are able to generate novel predictions about organizational conditions that moderate the archetype of an incremental approach to international expansion. Our focus on how organizational performance relative to aspirations shifts managerial risk preferences and search behavior complements the traditional view of risk-averse decision-making in the internationalization process. In addition to organizational experience in foreign countries and the characteristics of investment locations, we show that internationalization trajectory is also a function of changes in organizational search efforts and risk-taking attitudes that arise in response to relative performance levels, thus highlighting the adaptive nature of a firm's international strategy (Gavetti et al., 2012).

As organizational performance deteriorates below or improves above aspiration levels, we expect that firms will become more risk-averse with respect to their foreign entries – conforming more closely to the Uppsala model – by venturing abroad less frequently and, when they do so, adhering to familiar types of environments. By contrast, firms that perform in line with aspirations are more likely to exhibit comparatively radical internationalization strategies, entering more countries and including those that are less similar to prior organizational experience. Accordingly, we identify corporate performance relative to aspiration levels as a salient antecedent to market entry decisions, an understudied factor in the location choice literature. Future search could more systematically examine whether and how performance relative to aspiration levels affect firms' strategic responses to other location attributes such as corruption and environmental regulations.

Secondly, we highlight new organizational mechanisms, notably the role of managerial cognition, which can influence how firms search for, evaluate, and rationalize investment opportunities in foreign countries. Aharoni et al. (2011) noted that despite the critical role of cognitive heuristics and biases in managerial decision-making process, international business research has not adequately examined their impact on foreign investment decision. The current study places managerial cognitive biases induced by different levels of organizational performance at the center of theoretical development. Our findings suggest that cognitive biases can lead to varying assessments of the merits of entering new countries. A theoretical implication of applying a cognitive lens here is that underperforming and outperforming firms, which we argue are more bound by prior international experience than firms that are meeting their performance goals, may forego potentially profitable foreign investment opportunities in host countries that are quite culturally different or geographically distant from the firm's existing country locations. One direction for future research would thus be to carefully examine the subsequent performance implications of such incremental versus more radical approaches to international expansion.

Lastly, our findings about the interactions between performance relative to aspirations and prior investment experience add a more nuanced understanding of performance feedback theory. Prior research has mainly focused on the aggregate extent of strategic change and has overlooked the multi-dimensionality of risks inherent in a strategic decision. This limited focus reflects a desire for parsimony in the standard theory and limited data in prior empirical analyses. Our results demonstrate that performance relative to aspirations not only affects the overall propensity for strategic change (e.g. whether to invest abroad), but also influences organizational responses to different dimensions associated with that change (e.g. which countries to invest in). Therefore, in addition to extending the domain of performance feedback theory to research on international investment, this study points out a new path to examine the influence of performance feedback on strategic decision making.

One managerial implication of this study is that managers should be aware that decision-making processes around foreign expansion are susceptible to cognitive biases, which may lead to suboptimal performance in the long-run. Our findings alert managers to the possibility of being overly defensive in pursuing an internationalization strategy following episodes of relatively weak or strong corporate performance. The firm may fail to identify or capitalize on foreign investment opportunities if it overreacts to an episode of relatively weak corporate performance by drastically reducing explorative efforts towards collecting or acting on intelligence on new geographic markets. Since successful foreign investment often requires managers to have an extended time horizon, they should be cognizant of the biases caused by tendencies to rely on short-run feedback and short-run reaction in making decisions. On the other hand, due to the status quo bias, managers at firms with superior performance may not commit sufficient resources to foreign expansion. Although limiting exposure to foreign investment risk is an understandable behavior under the assumption of bounded rationality, it may lead to insufficient strategic investment that would reduce the firm's long-term prosperity. A recognition of these biases is important because, unlike the firms that experienced underperformance (e.g., Starbucks and AES in the opening quotes), more successful firms are unlikely to acknowledge or publicize their reluctance to undertake risky foreign expansion, making it challenging for investors and other stakeholders to assess the soundness of their strategy.

On the other hand, managerial heuristics and biases may lead to over-dependence on prior international experience when the firm chooses new investment locations. While investing in geographically and culturally familiar countries may prove to be a successful strategy, managers may place too much emphasis on an incremental approach towards foreign expansion when the firm experiences episodes of relatively strong or weak performance. This emphasis in turn can prevent the firm from exploring investment opportunities in unfamiliar country locations. In other words, cognitive biases induced by organizational performance relative to managerial aspirations can impair the balance between explorative and exploitative approaches towards organizational change and development, thus posing complications for achieving long-term performance in the process of internationalization.

Naturally, our study has a variety of limitations that should lead to some caution in interpreting the results, and which also suggest

directions for future exploration. First, like many performance feedback studies, our statistical approach to analysis, utilizing data on a large number of firms, does not allow us to directly examine underlying micro-level cognitive mechanisms, such as information processing biases (Gavetti et al., 2012). While our findings are consistent with such causal mechanisms, in-depth comparative case studies of foreign entry decisions by under- and outperforming firms would be a valuable way of further testing and developing our arguments. Similarly, even though we use the predominant method of measuring aspiration levels in the performance feedback literature (Shinkle, 2012), primary data from field studies would provide additional evidence for the hypotheses, and potentially validate the construction of aspiration measures used in statistical studies.

A further limitation is that the generalizability of our results may be circumscribed by the use of a single home-country sample and the possibility that managers from other cultural and institutional backgrounds perceive, and respond to, uncertainty and risk differently from Japanese managers (Geletkanycz, 1997). Thus, empirical analyses based on non-Japanese firms would provide additional tests of, and would help refine, the theoretical model.

Nonetheless, despite these and other limitations, our study provides new insights into the impact of organizational performance relative to managerial aspirations on international expansion, a topic with rich potential for future development.

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