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Experience of Emerging Market Firms: The Role of Cognitive Bias in Developed Market Entry and Survival

Abstract and Key Results

- This paper draws on organizational learning theory to explain how experience influences the propensity for emerging market firms (using an event history analysis of a sample of Latin American firms during the 1990s) to enter developed markets, and their likelihood of survival.
- We argue that developed market experience is positively related to emerging market firms' entry and survival in developed markets; however, cognitive biases affect the roles played by other types of experience in entry decisions.
- Alliance experience with developed market firms increases the likelihood of entry, but decreases the likelihood of survival. Failure experience in developed markets reduces the likelihood of entry, but increases the likelihood of survival.

Key Words

Organizational Learning, Experiential Resources, Cognitive Bias, Emerging Markets, Foreign Market Entry, Survival

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Introduction

Scholars have long asserted that the strategies and actions of organizations are based partly on their experience (Cyert/March 1963, Levinthal/March 1993, March 1991, Simon 1991). Experience is a key mechanism that facilitates learning and builds knowledge-based resources (Huber 1991, Levin 2000). Experiential knowledge, an important construct in organizational learning and evolutionary theories (e.g., Cyert/March 1963, Nelson/Winter 1982), accumulates through both positive and negative reinforcement of previous choices (Levitt/March 1988). Consequently, a firm's accumulated experiences shape its behavioral patterns and resulting strategic evolution.

International experience has been found to be important in multinational firms' market entry (Delios/Henisz 2000, Johanson/Vahlne 1977), market exit (Li 1995, Mitchell/Shaver/Yeung 1994, Shaver/Mitchell/Yeung 1997), global posture (Carpenter/Fredrickson 2001, Hitt/Hoskisson/Kim 1997), and foreign subsidiary performance (Miller/Eden 2006). As scholars enrich our understanding of the experience of multinational enterprises, it becomes apparent that there are separate forms of knowledge to be gained from different types of international experience.

An important, though often overlooked, issue pertaining to different forms of international experience is concern for optimal decision making. While fundamental to many organizational paradigms, optimal decisions are largely impossible because of bounded rationality (Simon 1991). For example, Levinthal and March argued that "learning is likely to be misleading if the experiential record on which it draws is a biased representation of past reality, and thus of future likelihoods" (1993, p. 104). Other scholars have concluded that executives are susceptible to cognitive biases that lead to flawed or sub-optimal decision making (Barker/ Duhaime 1997, Barnes 1984, Lovallo/Kahneman 2003, Starbuck/Milliken 1988, Westphal/Bednar 2005). Although the organizational learning literature acknowledges that biases may arise from experiential knowledge, limited research has considered the performance implications of decisions that involve different forms of experience.

To address this important gap, we examine whether international experience is subject to cognitive bias that affects firm decision making with respect to foreign market entry and survival. We draw upon organizational learning theory to develop hypotheses linking different forms of international experience with the likelihood of market entry. In addition, we predict outcomes associated with the entry decisions by examining the relationships between different forms of experience and firm survival. We hypothesize that certain forms of experience increase the likelihood of entry, but also decrease the likelihood of survival; whereas other forms of experience reduce the likelihood of entry, but increase the likelihood of survival. We test, and find confirmation for, our hypotheses on a sample of Latin American emerging market firms in the 1990s.

Using organizational learning theory, this research contributes to the international strategy literature on entry decisions and performance in several ways. First, prior studies have focused on only market entry, overlooking the outcome (survival or exit) associated with the market entry decision. Other studies have controlled for market entry choice in the study of survival (Shaver 1998); however, current levels of knowledge render us unable to determine whether the firm's experience helped managers make the optimal entry decision. Only by jointly considering market entry and survival can we ascertain whether multinational firms make optimal decisions regarding entry choice. By jointly studying entry and survival, we can examine how knowledge gained from different forms of experience leads to cognitive biases and the potential for either entering when survival is not very likely or not entering when survival is very likely (Lovallo/Kahneman 2003).

Failure as a learning experience has received increased attention in the management literature (Miner/Kim/Holzinger/Haunschild 1999, Reichheld 1996, Sitkin 1992). Although some scholars suggest that firms can learn from previous failures, Miller contends that a firm's "failures can be instructive, but they only suggest a wide array of possibilities about what it has done wrong, and not enough about what must be done right" (2003, p. 972). We attempt to extend prior work by explaining how knowledge gained from failure experience in developed markets may be transferable but can still cause a firm to not enter when success (i.e., survival) is quite likely. Lastly, our study of emerging market firms entering developed markets provides an early empirical examination of this increasingly more common phenomenon (Chen/Chen 1998, Makino/Lau/Yeh 2002). Understanding how experience influences which emerging market firms enter and survive in developed markets is important not only because such actions have become more common, but also because such understanding contributes to our knowledge of competitive actions and outcomes in a global context.

Theory Development

The importance of experience has been evident in studies of firm expansion and market entry (Baum/Li/Usher 2000), especially in an international context (Erramilli 1991, Pennings/Barkema/Douma 1994, Eriksson/Johanson/Majkgard/Sharma 1997). Martin and Salomon (2003) concluded that prior firm-specific international experience influences the likelihood of establishing plants in foreign rather than domestic locations. Multinational enterprises with experience in specific locations accumulate information regarding local demand, competition, feasibility of operations, as well as opportunities in adjacent locations (Greve 1996, 1998).

Bounded rationality is a key tenet of organizational learning theory (Simon 1955) and is apparent in the imperfect cognitive representations used by actors in

formulating mental models (Gavetti/Levinthal 2000, Thagard 1996). Researchers have shown that cognitive representations simplify complex relationships and interactions between choices and actors and influence managerial choices and action (Tversky/Kahneman 1986, Walsh 1995). Gavetti and Levinthal (2000) referred to cognitive learning as “forward-looking” wisdom, which is based on an actor’s beliefs about the relationships between different courses of action and outcomes.

Our framework, however, is based on research that suggests individuals are vulnerable to a range of cognitive biases (Lovallo/Kahneman 2003, Westphal/Bednar 2005). Because organizations are managed by individuals, organizations are also susceptible to such biases. For example, scholars have argued that despite the virtues of learning, organizations can experience learning myopia (Levinthal/March 1993). Lovallo and Kahnemann (2003) contended that managers tend to make decisions based on “delusional optimism” rather than on rational assessment. These scholars further argued that failed projects were not attributable to rational choices gone awry, but rather to flawed managerial decisions. Scholars have suggested that beliefs about action-outcome relationships (i.e., cognitions) can change as a result of experience (Louis/Sutton 1991).

Emerging Market Context

While experiential learning should be important for all firms, it is most important when firms are relative newcomers to international markets and the economies of scale in learning are the strongest. Early encounters with foreign firms, in the form of strategic alliances in the domestic firm’s home market and as competitors in foreign markets, and early experiences through foreign direct investment (FDI) in foreign markets, should be strong predictors of subsequent foreign market entry and survival. We therefore argue that studying firms from emerging markets should help to understand the impact of experiential learning on foreign market entry and survival. We contend that emerging market firms’ entry into developed markets and their subsidiaries’ survival or exit reflect the effects of cognitive biases on experiential learning.

Emerging markets are “low-income, rapid growth countries using economic liberalization as their engine of growth” (Hoskisson/Eden/Lau/Wright 2000, p. 249). Typically, FDI by emerging market firms has been targeted at other emerging markets (Guillen 2002, Kimura/Lee 1998, Wan 1998). However, some emerging market firms have entered developed markets (e.g., Western Europe) (Dunning/Narula 1996), but not without encountering substantial challenges (Bartlett/Ghoshal 2000). Emerging market firms must compete against developed market firms which normally have richer resource portfolios (Hoskisson/Kim/White/Tihanyi 2004). Poorly developed institutions in emerging markets provide weak bases for nurturing the financial, organizational and technological resources that emerging market firms

need in order to compete internationally (Gillespie/Teegen 1995, Hitt/Dacin/Levitas/Arregle/Borza 2000). As a result, emerging market firms entering developed markets compete from a position of double disadvantage: They incur the costs of doing business abroad faced by all firms (Eden/Miller 2004), and also must compete against resource-rich developed market firms.

We hypothesize that an emerging market firm's first experiences with developed markets most likely occurs when developed market firms seek to penetrate the emerging market firm's home market by forming strategic alliances with local firms. A second, typically later, form of experience occurs when the emerging market firm engages in FDI in a developed market economy. That developed market experience may either be successful or a failure; we focus on developed market failures as a second form of experiential learning. Lastly, as the emerging market firm internationalizes, the number of prior entries into developed markets – a measure of overall developed market experience – becomes a relevant factor influencing entry and survival in new developed markets. These forms of experience vary in the degree to which they are location bound (Rugman/Verbeke 2003), which, in turn, influences the transferability of the experiential knowledge to developed markets. We examine each of these forms of experiential learning below.

Developed Market Alliance Experience

In general, prior research suggests that alliance experience is a valuable resource for firms (Kogut/Shan/Walker 1992). Emerging market firms often form strategic alliances with foreign investors to acquire resources (Hooley/Cox/Shiple/Fahy et al. 1996) and establish relationships from which they can benefit in other ways. To acquire resources, emerging market firms tend to form strategic alliances in their local markets with developed market firms (Hitt/Dacin/Levitas/Arregle/Borza 2000). Emerging market firms acquire knowledge from their partners that can be used to compete more effectively in other foreign markets (Hooley/Cox/Shiple/Fahy et al. 1996); in addition, developed market firms also gain valuable knowledge about their emerging market partners. Prior research on international strategic alliances between emerging market firms and developed market firms suggests that differences in the formal and informal institutions of emerging markets and developed markets influence the degree of uncertainty and ambiguity associated with resource sharing decisions among partners (Hitt/Dacin/Levitas/Arregle/Borza 2000). Whereas developed markets tend to have well-established rules of exchange, emerging markets have high degrees of institutional uncertainty reflected by ineffective or unclear rule of law and weak enforcement of rules of exchange. Moreover, institutional differences between emerging and developed markets influence managers' strategic orientation towards competitors and partners (Garten 1996). Experiential knowledge based on alliances between emerging market and developed market firms

in emerging markets is likely to be location bound and applicable mainly in other emerging markets. Alliance experience with developed market firms in an emerging market firm's home market or in other emerging markets produces knowledge that is not easily transferable to developed markets (Hitt/Li/Worthington 2005).

The difficulty in transferring knowledge from an emerging market to a developed market is supported by March's (1991) logic, who argued that environmental uncertainty – a characteristic of many emerging markets – makes learning from prior experience more difficult. Experience obtained from high uncertainty environments may be less applicable to low uncertainty environments such as developed markets. It is difficult to identify the effects of context on the actions taken and how the knowledge learned in one context should be applied in a different context. Thus, emerging market firm executives may be more likely to assume falsely that alliance experience with developed market firms enhances their (a) understanding of an institutional environment with strong rule of law and enforcement that facilitates transactions in the developed market, and (b) understanding of customer expectations and ability to identify new market opportunities and conform to established business practices in a developed market.

Exposure to developed market firms may produce a false sense of confidence in emerging market firms' ability to survive in its partner's home market, confidence that encourages entry but does not provide the resources necessary for survival in the developed market (Bartlett/Ghoshal 2000). As such, emerging market firms that have alliance experience with developed market firms may underestimate the challenges involved in competing with these firms abroad, especially in the developed market firms' home market. Moreover, a developed market partner that is a cooperative ally in the emerging market becomes a competitor when the emerging market firm enters its alliance partner's home market. Through the alliance in the emerging market, the developed market firm has gained knowledge about the emerging market firm, which can also be used against the firm should it seek to penetrate the developed market firm's home market.

Prior research has found that executives tend to assume responsibility for favorable outcomes but attribute unfavorable outcomes to external forces (Salancik/Meindl 1984, Staw/McKechnie/Puffer 1983). In business settings, managers' optimism is magnified by anchoring and neglect of competitors' capabilities and actions. Anchoring is a cognitive bias that arises when executives and subordinates are committed to an initial plan that accentuates the positive. As such, any subsequent analysis tends to be overly optimistic. Competitor neglect reflects executives' tendency to focus only on their own firm's capabilities and neglect the capabilities and actions of the rivals. This tendency can lead to underestimation of negative events.

Moreover, individuals (e.g., executives) and groups (e.g., top management teams) may engage in biased information searches. In other words, they use information that supports the decisions they prefer and ignore information that conflicts with it (Schulz-Hardt/Frey/Luthgens/Moscovici 2000). Thus, cognitive biases are

expected to affect managers' decisions and how they use their knowledge gained through experience. In the present study, this cognitive bias implies that emerging market firm executives may be inappropriately confident based on prior alliance experience with developed market firms. These executives are inclined to ignore the knowledge that the developed market firm partner learns about the emerging market firm's strengths and weaknesses, and discount the developed market firm's commitment to defending its home market. Thus, alliance experience with developed market firms is likely to be associated with an error related to cognitive bias – increasing the likelihood of entry but reducing the likelihood of survival.

Hypothesis 1a. Alliance experience with developed market firms *increases the likelihood of entry* into a developed market country by an emerging market firm.

Hypothesis 1b. Alliance experience with developed market firms *reduces the likelihood of survival* in a developed market country by an emerging market firm.

Developed Market Failure Experience

Most prior research has focused on learning from success. The importance of failure as a learning experience has also received attention among organizational scholars (Reichheld 1996, Sitkin 1992, Miner/Kim/Holzinger/Haunschild 1999). Failure experience can be viewed as a form of "survival-enhancing learning" (Baum/Ingram 1998) and, in this context, can be a valuable resource for emerging market firms. Although firms that fail are unable to learn from their failure experience, a subset of firms can learn from the failure of industry rivals (Kim/Miner 2000). Darr et al. (1995) provided evidence that a firm's subunits can learn from each other. Given the context of our study, a firm with failure experience in developed markets has valuable knowledge and insights that can be applied to future developed market entries, and may also enhance the emerging market firm's subsidiaries' capability to survive in developed markets.

Although failure experience in a developed market can be valuable and can contribute to success if proper lessons from errors are learned (Kam 2004), prior failures by emerging market firms in developed markets may create doubts in the minds of many corporate leaders from emerging markets (Bartlett/Ghoshal 2000). Attribution studies suggest that executives are more inclined to attribute unfavorable outcomes (such as prior failures) to uncontrollable external forces (Schwenk 1986). By focusing on uncontrollable external forces, constructive evaluation of a prior failure is unlikely to occur. Thus, an emerging market firm executive may adopt the adage, "once burned, twice shy," discouraging the firm from making a subsequent developed market entry after failure in another. For these "twice shy" firms, the

experiential knowledge acquired from prior failure is not transferred to existing subsidiaries, and instead remains with the parent. Additionally, there is no new subsidiary to receive the non-location-bound knowledge. As such, an emerging market firm with developed market failure experience is less likely to enter another developed market. On the other hand, for those emerging market firms that move forward with subsequent entry into a new developed market, failure experience provides enhanced ability for survival. Thus, developed market failure experience reflects a cognitive bias that generates a different type of error from that described in Hypotheses 1a and 1b:

Hypothesis 2a. Developed market failure experience *reduces the likelihood of entry* into a developed market by an emerging market firm.

Hypothesis 2b. Developed market failure experience *increases the likelihood of survival* in a developed market by an emerging market firm.

Developed Market Experience

Through prior international experience as foreign investors, firms gain important knowledge about customers, markets, cultures and governments that in turn facilitates future international expansion (Hitt/Hoskisson/Kim 1997). Lecraw found that “Indonesian firms with greater expertise in international operations tended to engage in outward investment to a greater extent than did other firms” (1993, p. 598). Expansion into foreign markets helps firms to acquire tacit managerial knowledge (Almeida 1996) about how to manage diversity (Barkema/Vermeulen 1998). Firms with international experience are also able to take advantage of information spillovers from firms they encounter (in direct actions or through careful observation). Information spillovers become even more valuable for firms with prior experience in the specific markets entered because they are better able to use this knowledge effectively (Shaver/Mitchell/Yeung 1997).

Moreover, prior researchers have found that experience in one foreign country can help overcome liability of foreignness in other countries with similar institutions (Zaheer 1995, Zaheer/Mosakowski 1997). We therefore hypothesize that emerging market firms with developed market experience are better able to transfer knowledge gained from prior developed market experiences to entry and competition in new developed markets. This knowledge facilitates overcoming the liability of foreignness in these new developed markets, compared to emerging market firm rivals with no international experience or only emerging market experience. Based on these arguments, we suggest that the greater the number of previous emerging market firm entries into developed markets, the easier the entry into a new developed market and the higher the probability of survival. While we acknowledge possible congestion problems from excessively rapid growth or bunching of FDI entries (which would

lead to an inverted-U relationship), for simplicity, we assume this relationship is positive and monotonic (see, however, (Vermeulen/Barkema 2002)). Thus:

Hypothesis 3a. Developed market experience *increases the likelihood of entry into* developed markets by an emerging market firm.

Hypothesis 3b. Developed market experience *increases the likelihood of survival in* a developed market by an emerging market firm.

Data and Methods

Our sample was derived from *América Economía's* annual list of the 500 largest Latin American corporations. Firms that were not on the list for each of the years from 1991 to 2000, or which were majority-owned by an international parent, were excluded, resulting in a sample of 104 firms. The data for this study were collected from a variety of sources, each of which is described in detail below.

We used Cox's proportional hazards event history model to analyze the time varying survival rate of either entry into or survival in (Morita/Lee/Mowday 1993). The unit of analysis is the event history of an emerging market firm's entry into a developed market (Gimeno/Hoskisson/Beal/Wan 2005). For the developed market *entry* analysis (H1a, H2a, and H3a) we study the hazard rate of *parent* firms in the sample entering into a developed market via a strategic alliance (where at least 10% equity is acquired), joint venture (where a new firm is created with some level of joint ownership but the two parent firms remain separate), acquisition/merger, or greenfield venture. For the developed market *survival* analysis (H1b, H2b, and H3b), we study the hazard rate of survival for *subsidiaries* that have entered developed markets. Data were obtained from the Security Data Corporation's (SDC) Joint Venture/Alliance and Mergers and Acquisitions database, from each firm's annual report and corporate website, and in several cases from direct telephone contact with company managers.

The date of either parent firm market entry or failure (death) of the subsidiary was used to estimate the hazard rates. Because our independent variables were measured at annual intervals, we split the sample into spells, as is typical in event history methodology (Gimeno/Hoskisson/Beal/Wan 2005, p. 307). In the case of the sample and hypotheses dealing with entry into developed markets, splitting the sample into spells also allows for repeated events or repeated entries into the same developed market in the same year (Sakakibara 2002).

In the data collection process and analysis, we sought to ensure that each entry was unrelated to subsequent entries in order to satisfy the assumption that events are independent, as required in event history models (Morita/Lee/Mowday 1993). Firms that never entered a developed market were censored at the end of the ob-

observation window. Firms become at-risk (the time beginning with which an entry can be made) of entering developed markets from their date of inception. Data on date of inception were obtained from *Hoover's Company Capsule Database*, Graham & Whiteside's *Major Companies Database* and each firm's website. However, each firm was under observation beginning January 1, 1991 (this is the first date for which data on the independent and dependent variables were available). Hence, time is calculated from the date of inception of each firm and is independent of each event; this is consistent with previous research when the time at risk and under observation differ, and when multiple events are analyzed (Sakakibara 2002).

The model was run using the STCOX procedure in STATA/SE 8.0 using White-corrected robust standard errors to correct for heteroscedasticity (clustering on either the parent or subsidiary, depending on the sample and hypotheses being tested); doing so allows us "to control for potential nonindependence of observations" within groups (Gimeno/Hoskisson/Beal/Wan 2005, p. 307). The Cox model is based on an assumption of proportional hazards; we tested for this assumption using STATA's STPHTEST. Initially, we could not reject the hypothesis that the hazards are proportional. In order to correct for this, we stratified our samples based on several time invariant characteristics: the home country of the emerging market firm, target developed country, and a dummy variable that indicates whether a particular emerging market firm parent entered a developed market before 1991.

Because we are interested not only in the developed markets where emerging market firms entered as well as the developed markets where emerging market firms did not enter, the level of analysis for the independent variables is the firm/target country. For each firm-year, a developed country is at risk of entry if another firm has entered into that country in that year or previously; hence there are 10 potential developed markets (all were OECD member countries at the beginning of 1991) into which each firm could enter, but the number differed depending on the year. This level of analysis controls for target-nation characteristics. This resulted in 1040 firm/target country event histories (104 firms x 10 target countries) and, due to annual/event splitting, 5770 spells. Splitting event histories into spells did not affect the consistency of our estimates "since it did not modify the overall likelihood function of the model (Gimeno/Hoskisson/Beal/Wan 2005, p. 307). All models are estimated using a one-year lag between all of the independent variables and the dependent variable.

Control Variables

We included two time-varying country-level controls in order to account for factors that may affect emerging market firms' entry and survival in developed markets – *home country real GDP growth* and *host country real GDP growth* – using data from World Development Indicators. We controlled for industry by using a

manufacturing firm dummy variable based on the one-digit primary SIC classification for each firm ('1' if the primary SIC code was zero, one, two or three (i.e., manufacturing and related industries), and '0' for primary SIC code of four, five or seven (service and related industries). These data were available from *América Economía*, *Hoover's Company Capsule Database*, and *Graham & Whiteside's Major Companies Database*.

We also added *parent-level control variables*. Each variable was selected because it had been found to have a significant impact on firms' internationalization strategies and performance. First, we controlled for *firm size*, measured by the natural logarithm of the parent's total annual sales in U.S. dollars. Firm size has been previously linked to firms' FDI decisions as a proxy for constructs such as market power. Firm size data were obtained from *América Economía*. Second, we controlled for *group membership*, which is a dichotomous variable that equals one if the firm is a member of a group, zero otherwise. Many Latin American firms are members of large conglomerates called "grupos". Group membership data were obtained from *América Economía's* annual 500.

Third, we controlled for *technological resources* owned by the emerging market firm. Technological resources were measured by the total number of patents registered with the U.S. Patent and Trade Office (USPTO) (i.e., the stock of patents held by the firm in each year). Foreign firms often register their patents in the United States because of international protection reciprocity when doing so (Dunning 1998). Furthermore, using one repository for patents controls for differences in patent laws and protection in each of the seven emerging markets represented by the sample. We controlled for *marketing resources* owned by the emerging market firm, which were measured by the total number of trademarks and servicemarks registered with the USPTO (i.e., the stock of marks held by the firm in each year). Trademarks, servicemarks and logos are valuable assets in which firms invest, often spending twenty times the capital on their permanent media than they do on advertising (Henderson/Cote 1998).

Finally, in the survival analysis, we controlled for *mode of entry* with a dummy variable that equals one if the firm entered via merger, acquisition or greenfield (there was only one greenfield entry) and zero if it entered via strategic alliance (including joint venture). We do not control for mode of entry in the market entry analysis because in the first stage we are simply testing whether or not a firm enters. As such, we are unable to provide a mode of entry code for the firms that do not enter.

Independent Variables

Alliance experience with developed market firms was measured using a dichotomous variable that equals one if the emerging market firm had a strategic alliance

(including non-equity alliances such as codesharing) with a developed market partner in an emerging market (including the emerging market firm's home market), zero otherwise. Data on alliance experience came from SDC's alliance database and from each firm's annual report and website. We did not include emerging market firm-developed market firm alliances that targeted a developed market in order to avoid any potential biasing effect this might cause. While some firms had more than one strategic alliance with a developed market partner, it is difficult to ascertain the exact number of such alliances because some were formed as far back as the 1950s. We used the more conservative dichotomous measure to avoid undercounting. We measured *developed market failure experience* as the number of emerging market firm subsidiary failures in developed markets experienced during the period of study. *Developed market experience* was measured by the number of previous emerging market firm entries (number of entries ranged from zero to nine) into developed markets during the period of study. Data on developed market entries by each emerging market firm were obtained from SDC's JV/Alliance and M&A database and each firm's annual report and website.

In the second part of our analysis, we make predictions about the survival of an emerging market firm's subsidiary in a developed market. Separate models were estimated for the event history of an emerging market firm's developed market subsidiary *survival*; the sample for this analysis consisted of records for each of the 60 subsidiaries. Analysis begins for each subsidiary from its date of inception. We used the same emerging market firm parent firm data for knowledge-based resources in the survival models. Spells were split for updating of annual-varying predictor variables but not for repeated events, because subsidiary failure cannot be repeated. If a subsidiary survived during the period of study, it was coded as zero. If the subsidiary failed, it was coded as one and the date of failure was used in the event-history analysis. We used the same parent, industry, home country and target country-level control variables in the survival models as in the first-stage market entry analysis.

Results

Descriptive statistics and Pearson correlations are presented in Table 1. Correlations indicate that multicollinearity is not a problem. Table 2 provides a breakdown of the 60 entries of emerging market firms into developed markets by home country, country entered, industry, and year. Mexico was the home country for 50 of the 60 entries; the United States was the target country for 41 of the 60 entries. Market entry results are presented in model 2 of Table 3. Coefficients rather than hazard ratios are shown.

Table 1. Descriptive Statistics and Pearson Correlations

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1 Technological Resources	2,19	12,12									
2 Developed Market Experience	0,23	0,83	0,09*								
3 Alliance Experience with Developed Market Firms	0,55	0,5	0,16*	0,15*							
4 Developed Market Failure Experience	0,02	0,14	-0,03*	0,48*	0,07*						
5 Firm Size	1740,55	3462,91	0,38*	0,27*	0,30*	0,04*					
6 Marketing Resources	2,86	6,93	0,18*	0,27*	0,12*	0,17*	0,19*				
7 Grupo Membership	0,47	0,5	0,01	0,21*	0,19*	0,12*	-0,01	-0,25*			
8 Manufacturing Firm	0,53	0,5	0,17*	0,12*	0,19*	0,05*	0,07*	0,20*	0,31*		
9 GDP Growth - Home Market	3,56	3,43	-0,02*	0,04*	0,01	0,01*	-0,05*	0,02*	0,04*	0,04*	
10 GDP Growth - Target Market	2,78	2,4	0,02*	0,08*	0,10*	0,06*	0,12*	0,07*	-0,00	0,00	-0,03*

Firm size is measured in terms of millions of Mexican pesos.

*p<.05

Table 2. Breakdown of Entries

Home Country	# of Entries	Year	# of Entries
Brazil	4	1991	7
Chile	3	1992	2
Colombia	3	1993	4
Mexico	50	1994	5
	60	1995	6
		1996	4
Country Entered	# of Entries	1997	7
Austria	1	1998	9
Belgium	1	1999	11
Canada	1	2000	5
France	1		60
Germany	1		
Portugal	1		
Spain	11		
Switzerland	1		
United Kingdom	1		
USA	41		
	60		60

Industry	# of Entries
Extractive	7
Manufacturing	36
Service	16
Other	1

In model 2, alliance experience with developed market firms is positively associated with developed market entry, providing support for H1a ($p < 0.05$). Developed market failure experience is negatively related to developed market entry, which indicates that this form of experience reduces the likelihood of entry into developed markets, supporting H2a ($p < 0.001$). Lastly, developed market experience is positively associated with developed market entry, but only moderate support for H3a was found ($p < 0.10$).

Data over multiple spells on each of the 60 subsidiary event histories resulted in 356 spells that were used to test the survival hypotheses. The results of hierarchical models used to test the hypotheses (H1b-H3b) are presented in model 3 of Table 3. Alliance experience with developed market firms is positively associated with failure (negatively associated with survival), which provides support for H1b ($p < 0.001$). Developed market failure experience is negatively related to failure (positively related to survival), which provides support for H2b ($p < 0.01$). Lastly, the results indicate that developed market experience is negatively related to failure (positively related to survival), providing moderate support for H3b ($p < 0.10$).

In terms of the control variables, our results indicate that emerging market firms with technological resources are less likely to enter developed markets, but those that do enter are more likely to survive. This suggests that emerging market firms entering developed markets are primarily engaged in knowledge seeking rather than knowledge exploiting FDI. However, entering the developed market, strength of

Table 3. Entry and Survival Of Emerging Market Firm Subsidiaries in Developed Markets

	Market Entry Hypotheses			Survival Hypotheses	
	Hyp.	Model 1	Model 2	Hyp.	Model 3
<i>Country-Level Controls</i>					
GDP Growth - Home Market		-0.04 (0.07)	-0.02 (0.06)		1.21*** (0.30)
GDP Growth - Target Market		0.39 (0.27)	0.45* (0.21)		-8.95*** (2.37)
<i>Parent-Level Controls</i>					
Firm Size		0.90 (0.75)	0.34 (0.37)		-4.71** (1.72)
Group Membership		0.75 (0.77)	0.46 (0.64)		-7.85* (3.64)
Technological Resources		-0.02** (0.01)	-0.05*** (0.01)		-28.91*** (3.40)
Marketing Resources		-0.04 (0.04)	0.03 (0.03)		0.53*** (0.14)
<i>Industry-Level Control</i>					
Manufacturing Firm		0.84 (0.77)	1.12† (0.59)		9.34*** (2.04)
<i>Experience Variables</i>					
Alliance Experience with Dev. Mkt. Firms	H1a		1.93* (0.77)	H1b	26.73*** (4.36)
Developed Market Failure Experience	H2a		-3.40*** (0.74)	H2b	-6.76** (1.97)
Developed Market Experience	H3a		0.29† (0.17)	H3b	-1.03† (0.53)
Mode of Entry					1.99 (2.35)
N (Spells)		5770	5770		356
Firm-Nation Subjects		1040	1040		60
Partial Log-Likelihood		-46.03	-39.08		-5.66
Model χ^2		39.94***	73.65***		850.35***

† p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001 using a conservative two-tailed t test.

knowledge-based resources is positively related to foreign subsidiary survival. Our results also indicate that marketing resources are not related to developed market entry, and those emerging market firms that do enter with marketing resources are less likely to survive. Again, cognitive bias may be a plausible explanation. Emerging market firm executives may be over confident that well-established brands in emerging markets will be valuable resources in a developed market (non-location-bound assets). However, unfavorable perceptions in developed markets of products

designed and produced in emerging markets may offset any perceived value (Lovallo/Kahneman 2003), reducing the probability of survival.

Discussion

We have examined how different forms of emerging market firm experience were related to entry and survival in developed markets. The results of our analysis revealed that experience can affect firms in one of two ways: 1. Increasing the likelihood of entry, but reducing the likelihood of survival if they do enter, or 2. Reducing the likelihood of entry, but increasing the likelihood of survival if they do enter. These results provide support for the argument that managers are subject to cognitive biases when they make highly important strategic decisions such as entering a new highly competitive market. In addition, the results also suggest that such biases affect managerial decisions in countries outside of the U.S. where most such research has been completed.

The results suggest that knowledge obtained from alliance experience with developed market firms in the emerging market firm's home market is largely location bound to emerging markets. After relational capital has been developed between the partners, emerging market firm executives often gain access to more managerial and perhaps even technological knowledge. As a result, they may assume incorrectly that this knowledge gained in an emerging market can be transferred to a developed market. Thus, alliance experience with developed market firms can produce a false sense of confidence, encouraging the emerging market firm to enter developed markets.

Essentially, the emerging market firms engage in exploratory learning (March, 1991) from developed market firm partners to build capabilities. However, they must then engage in exploitative learning to learn how to use this knowledge (apply the newly developed capabilities) in productive ways. In other words, they must build tacit knowledge to implement a market entry strategy in a new developed market (Hitt/Li/Worthington 2005). Doing so in a highly competitive developed market is challenging and risky for the emerging market firm. It may be difficult to build tacit knowledge in this type of competitive landscape (Hitt/Keats/DeMarie 1998). Hitt et al. (2005) suggest that emerging market firms might better engage in this type of exploitative learning in other emerging markets and later enter more challenging developed markets.

These findings also reinforce Lovallo and Kahneman's (2003) arguments regarding competitive neglect in that the developed market firm may acquire substantial knowledge about the emerging market firm, thereby disallowing the latter firm from exploiting its existing resources and capabilities to obtain a competitive

advantage in a developed market. The developed market firm uses its knowledge of the emerging market firm's resources and capabilities to erect competitive barriers so that they cannot be exploited for advantage in the developed market. The survival analysis results suggest that entry decisions based solely on alliance experience with a developed market firm represent a poor allocation of a firm's resources, providing empirical support for Lo vallo and Kahneman's claims about "flawed decision making" (2003, p. 58).

Our results also suggest that both developed market entry experience and failure experience are not location bound and, therefore, represent sources of transferable experiential knowledge that can enhance emerging market firms' survival in developed markets. Although work in organizational learning generally assumes that firms and individuals often do learn from failure, it is less clear that the knowledge acquired from failure will be used (Levinthal/March 1993). The empirical findings support the argument that emerging market firms with developed market failure experience may be prone to commit an important error: not entering a developed market when the likelihood of survival is relatively high. Emerging market firms may acquire valuable knowledge from their failure experience, (Sitkin 1992), but such knowledge may be underutilized because some emerging market firm executives may lack the confidence to re-enter developed markets. By avoiding market re-entry, these firms are unable to exploit the knowledge gained from market failure. As a result, failure to re-enter developed markets when it has adequate knowledge to do so successfully may weaken an emerging market firm's knowledge base in the long-term by increasing path dependence in their absorptive capacity (Cohen/Levinthal 1990).

Our results have managerial implications as well. For example, the results suggest that when emerging market firms fail in developed markets, they should take action to ensure that they learn the reasons for their failure and then exploit this knowledge by carefully entering another developed market, perhaps even the one in which they previously failed. We conclude that if failure occurs in a developed market, it can be a valuable source of learning. However, it is important for the emerging market firm to complete an "after action review" to identify the reasons for the failure and to catalog the knowledge. Next, emerging market firm executives should take actions to exploit the new knowledge. Perhaps, it would be best to apply the knowledge first in emerging markets competing against developed market firms. After successfully competing against developed market firms in emerging markets, the emerging market firm may be ready to re-enter a developed market and compete. With substantial resource deficiencies relative to developed market rivals, the emerging market firm cannot expect to enter and survive in developed markets without possessing and accurately assessing the value of their critical experiential resources.

Our findings with respect to cognitive bias and the related errors made by firm managers are especially important and likely extend beyond the emerging market

firm (Bartlett/Ghoshal 2000). Developed market firm executives are susceptible to cognitive biases, as well. To minimize the likelihood of either form of error, executives need to understand when knowledge accumulated from experience can be transferred and to what types of environments the knowledge can be applied. Second, executives need to focus less on allocating blame for failed projects. Instead, they should emphasize a change in organizational culture and foster a global mindset (Levy/Beechler/Taylor/Boyacigiller 2007). This shift in emphasis can help the firm move away from decision making based on avoiding failure and toward examining how best to use the knowledge gained from failure experience. Such actions will enrich the firm over time and are likely to enhance the executives' reputation in the long term. The first step may prove easier to achieve than the second because self-doubt often permeates the managerial ranks of emerging-market firms, which is only reinforced by failure. Changing the organizational culture and embracing a global mindset are difficult because managers (and others in the organization) tend to change their beliefs slowly – new information is often viewed as reliable if it supports existing beliefs, but it is considered unreliable if it contradicts those initial beliefs.

Lastly, as the emerging market firm internationalizes, the number of prior entries into developed markets becomes relevant because it influences entry and survival in new developed markets. We hypothesized, and found empirical support for, a positive relationship between developed market experience, developed market entry and survival; that is, this form of experiential learning for emerging market firms is not affected by cognitive bias. We infer from our results that this form of experience provides an opportunity to learn from success, which boosts confidence. Our results underscore the potential value of learning from both success and failure. However, a firm is more likely to realize the value of its acquired knowledge when it is associated with a positive outcome rather than a negative one. Although we associate success with developed market experience, our findings have implications for organizational learning and decision-making. If learning is more likely to be exploited with successful experiences than failure experiences, an unfortunate consequence is that sub-optimal decision making is perpetuated; future decisions are made to take strategic actions that reduce the likelihood of failure.

Conclusions

The present study sought to extend the organizational learning literature by contributing to our theoretical understanding of how three forms of experience by emerging market firms – alliance experience with developed market firms, previous failure experience in developed markets and numbers of prior entries into de-

veloped markets – can explain both developed market entry and survival. We found that, despite the resource disadvantages of emerging market firms, experiential resources do affect the likelihood of emerging market firm entry and success in developed markets, although two forms of experience suffer from cognitive biases. Alliance experience with developed market firms can contribute to firms mistakenly entering a developed market when the likelihood of survival is relatively low. This form of experience is negatively related to survival, implying that some emerging market firms that enter developed markets make sub-optimal decisions based on alliance experience. Moreover, emerging market firm executives may miss opportunities in developed markets due to developed market failure experience. Although failure experience can enhance the likelihood of survival (which can lead to further innovations and knowledge acquisition), “once burned, twice shy” emerging market firm managers may avoid re-entering developed markets. It is also important to note that firms can exit markets without failing. For example, they may wish to marshal their resources and focus them on fewer markets where they have higher probabilities of success. Yet, it is difficult to differentiate these exits from those based on failures in the market. Disentangling these effects is challenging because it requires knowledge of the managers’ motivation for the exit decision. Perhaps future research can focus on the interesting research question of differentiating the types and reasons for market exits.

This study represents one of the first empirical tests of the firm-level determinants of emerging market firms’ entry into and survival in developed markets, a generally neglected two-part phenomenon in organizational learning research. In building theoretical arguments to explain the entry and survival undertaken by emerging market firms in developed markets and empirically testing them, the present study provides the groundwork for important future research contributions, with implications for both organizational learning and international strategic management.

Organizational learning theory assumes that managers are rational actors who make strategic decisions based on assessments of their firms’ resources and capabilities. For instance, organizational learning studies have often assumed that experience is valuable and exploited optimally. However, our study suggests that organizations are susceptible to learning myopia (Levinthal/March 1993). Emerging market firms’ strategies are affected not only by actual firm experiences, but also by managerial perceptions of these experiences, introducing a behavioral aspect to firm strategies. Managerial hubris and misperceptions about the firm’s resources and capabilities, for example, could cause an emerging market firm to enter a developed market but fail to survive. Failure experience, on the other hand, could discourage subsequent entries despite the valuable knowledge gained from the setback; however, those firms that do enter may have enhanced survivability.

Our study may be limited by the use of a dataset which is heavily weighted with entries by Mexican firms and entries into the U.S. A follow-up comparative study

with other emerging-market firms from other regions would be useful to test of the generalizability of our results. This study focused on survival as a measure of performance. Future research should use alternative measures of performance. Another limitation of this study is our inference of cognitive biases on the part of managers from firms' strategic actions. While this is common practice in management research, ideally such studies would also have measures of managers' perceptions and decision-making processes.

Future research should consider the international experience of top management teams and how their international experience influences the likelihood of committing both types of errors examined herein. Future research should also consider even longer time horizons in order to examine experience histories of firms. Analysis of transition-economy firms (e.g., East European firms) provides exposure to executives that for many years operated under centralized planning. As such, these executives may possess cognitive biases that differ from executives of other emerging market firms or from developed market firms, due largely to their limited experience with competition and a profit orientation.

As we noted above, the results of this research have important implications for practicing managers of emerging-market firms. When making decisions about entering developed markets, managers must understand the criticality of experiential resources. Understanding the potential for cognitive biases and the location-boundness of experience provide a first step toward minimizing these two types of errors, especially for firms seeking to successfully implement an international strategy.

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Douglas E. Thomas/Lorraine Eden/Michael A. Hitt/Stewart R. Miller

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