

One Piece does not a Puzzle Make:

The First-Mover Decision as one Piece on the Foreign Investment Strategy Puzzle

By

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Abstract

I develop a comprehensive strategic decision set for foreign investment that includes not only the first-mover strategy, but also partner selection, geographical market, investment cycle, joint-venture control, and resource commitment strategies. Using data from foreign investment in Sichuan China, I test for evidence that first movers perform better than late movers. The results reveal that there is a first mover advantage when the other strategic variables are not included in the model. When the entire set of strategic variables are included, however, the first mover variable loses its significance and the willingness of the foreign partner to commit additional resources becomes the best predictor of performance. Consequently, I argue that foreign investment strategies should be analyzed as a set of strategic decisions managers make to formulate the best mix.

Keywords: China, Joint Ventures, First Mover

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First-mover advantages have become a foundational principle in strategic management by asserting that those firms that act earlier than their competitors obtain a competitive advantage that results in greater profits by establishing technology leadership, preempting competitors acquisition of strategic resources, and developing buyer switching costs (Lieberman & Montgomery, 1988; 1998). This concept has been applied not only to the introduction of new products, but also in establishing joint ventures and WFO (Wholly Foreign Owned) in foreign markets. The first-mover strategy has been frequently invoked by firms entering post-socialist nations where first-mover advantages have been asserted to be beneficial in obtaining the best local partner, which leads to increased market share and profits. The robustness of the first-mover advantage spurred researchers to further examine whether merely being the first to enter a market is in of itself sufficient to produce the desired advantages, or whether it must be combined with specific firm attributes (e.g. Schoenecker & Cooper, 1998), competitors' responses (Ketchen, Snow, & Hoover, 2004; Lambkin, 1988), or market environments (e.g. Luo & Park, 2001; Gaba, Pan, & Ungson, 2002, Sarkar, Cavusgil, & Aulakh, 1999) to be beneficial.

All of the above studies, however, begin with an implicit presupposition that the strategic decision to be a first mover is the only significant strategic decision made by managers and thus the sole independent variable responsible for the variation with the dependent performance variable. Although some researchers (e.g. Mitchell, 1989; Pan, Li, & Tse, 1999; Zhao & Luo, 2002) have examined how a few other strategies supplement and support the first mover strategy. There has not been a systematic attempt to develop a comprehensive set of important strategic decisions and then determine whether the first mover decision has a positive correlation with performance when all other strategic decisions are controlled for.

THEORY AND HYPOTHESES

First-Mover Strategy

First-mover advantages occur when an asymmetry develops between a firm and its competitors due to the firm possessing unique resources, insights, or luck. This asymmetry provides a competitive advantage by which the firm can extract economic profits by a variety of mechanisms such as technology leadership, preemptive control of resources, and buyer switching costs (Boulding & Christen, 2001, Lieberman & Montgomery, 1988). Empirical evidence for first-mover advantages has been found in a number of areas. Ramamurti (2000), for example, finds that first-movers in the Latin America telecommunications market obtained first-mover advantage because the initial foreign investment in these high risk countries forced the governments to discount state assets at the beginning of privatization. Vanderwerf and Mahon (1997) perform a meta-analysis of studies related to first-mover advantages and find significant positive correlation between first-movers and market share. Additional studies link first-mover advantages to corporate acquisitions (Carow, Heron, & Saxton, 2004) oligopolistic industries (Sarkar, Cavusgil, Tamer, Aulakh, 1999), the money market mutual fund industry (Makadok, 1998), foreign investment (Isobe, Makino, & Montgomery, 2000), and to investing in developing nations' infrastructure (Doh & Ramamurti, 2003).

The first-mover strategy, however, is inherently risky and vulnerable to later entrants. For example, late-movers can free-ride off first-movers by learning from the first-mover's mistakes and then adjusting their strategies and processes accordingly (Boulding & Christen, 2001). Boyd and Bresser (2008), however, found that those late-movers that responded too quickly to make informed decisions did not perform better. Although, late-movers may not have the first-mover mindset to create markets, Markides & Geroski (2003) assert that they do have the mindsets that are ideal for taking market niches created by others and developing them into mass markets. Shamsie, Phelps, and Kuperman (2004) found this to be especially true of late-movers that have abundant resources. Although, late-movers may be able to obtain a greater market share than first-movers, Covin, Slevin, and Heeley (2000) found evidence that first-movers are able to maintain higher profit margins than late-movers over the long run. Thus, there is evidence that even though first-movers initially experience greater benefits than late-movers, they tend to lose much of this advantage as late-movers enter the market (Lee, Smith, Grimm, & Schomburg, 2000; Makadok, 1998).

The high uncertainty environments of post-socialist and transitional economies such as China are quite different from developed economies, and thus require a re-examination of the first-mover strategy to determine its effects (Ketchen et al., 2004). In these environments, Bhattacharyya and Rahman (2003) have argued that the weak institutions, poor infrastructure, and underdeveloped markets create barriers to entry for late-movers, and thus result in first-mover advantages that more than offset the additional uncertainty in these environments. In addition, Frynas, Mellahi, and Pigman (2006) argue that political resources are important in many international ventures and provide a detail account of how Volkswagen's 1982 joint venture in China benefited by having access to these political resources. Additional first-mover research conducted in China supports this view by finding significant evidence for first-mover advantages. For example, Isobe, Makino, and Montgomery's (2000) study of 220 Sino-Japanese manufacturing subsidiaries found that first-mover firms had a higher level of performance where performance was measured by employee turnover, perceived economic performance, and overall satisfaction with the firm. Similarly, Pan et al. (1999) sample of over 14,000 foreign firms also revealed significantly higher market shares and profitability for early entrants, and Luo's (1998) sample of 168 foreign invested light manufacturing firms in Jiangsu province revealed that first-movers had a significantly larger market share than the late-movers. In addition, other studies have also found first-mover advantages in China's transitional environment (e.g. Pan & Chi, 1999; Luo & Peng, 1988). Based on past first-mover research conducted in China the following prediction can be made:

Hypothesis 1. Before controlling for other strategic decisions, there will be a positive relationship between performance and foreign firms that entered China before their competitor.

Additional Strategic Decisions

The first-mover decision, however, is just one of a set of strategic decisions made by managers. The conceptualization of a strategy being composed of a set of strategic decisions has been more thoroughly researched in the area of marketing than in foreign investment. Szymanski, Troy, & Bharadwaj (1995) conducted a meta-analysis to determine how the first-mover strategy interacted with other marketing strategies such as product line breadth, product customization, relative product price, end customer purchase frequency, market growth rate, and eighteen other marketing variables. They find evidence that it is more beneficial to study the first-mover

strategy within the broader set of marketing decisions. In contrast, the interaction of the first-mover strategies with other strategies in the context of the foreign investment has not been systematically examined. This study intends to fill this gap by analyzing the first-mover strategy within the broader set of strategic decisions. In addition to the first-mover decision, managers contemplating direct foreign investment also make important strategic decisions concerning partner selection, geographical market, investment cycles, managerial control, and resource commitments.

Partner Selection Strategies. Two partner selection strategies are examined for their interaction with the first-mover strategy. First, unrelated diversification occurs when the foreign firm and the Chinese partner don't both have prior experience with the product or service. Although the unrelated diversification strategy is often considered a risk reduction strategy by the parent firm as it diversifies its product portfolio, with regards to the China entity it increases the likelihood of failure for two reasons. First, host governments prefer related product investments that are more likely to involve a greater degree of technology transfer (Brouthers & Bamossy, 1997; Doh & Ramamurti, 2003). Second, more synergy can be created with the local partner by focusing on the investing firm's core competencies (Bartlett and Ghoshal, 1989; Hennart, 1988). In support of the core competence perspective, Luo (2002b) found that foreign joint ventures in China where both partners had experience with similar products performed better than joint ventures with unrelated products. He attributed this to inter-partner learning, resource sharing, innovation improvement, and market power integration. Therefore, one important aspect of partner selection strategy is to decide whether to choose a firm that produces similar products and services.

The second partner selection strategy concerning foreign investment in China is to determine whether to choose partners from existing relationships or whether to search for a partner from all potential firms. Relationships are extremely important within the Chinese business cultural context. The Chinese word for relationship is "guanxi" and is by far the most researched Chinese business characteristic. It has been applied to inter-organizational ties among Chinese firms (Chen & Chen, 1998; Park & Luo, 2001), labor markets (Bian, 1997; 1999; Bian & Ang, 1997), relations among regions (Tan & Yeung, 2000; Yeung, 1997), marketing (Wong & Chan, 1999), market efficiency (Lovett, Simmons, & Kali, 1999), and to a firm's competitive advantage (Luo, 1997, Peng & Luo, 2000; Tsang, 1998). With regards to international joint ventures in China, Luo (2002a) found that previous cooperation bolsters contractual adaptability, which in turn nurtures current cooperation and results in better performance. Therefore, a partner selection strategy is to form joint ventures with Chinese firms where a good relationship has already been established.

Market Geography Strategies. China does not currently consist of a single fluid market, nor did it historically have integrated markets. It has been asserted that 19th century China was not a single unified economic system, but rather nine "macroregions" defined by geographical barriers (Skinner & Baker, 1977), and that the early economic reforms implemented in the 1980s served to consolidate economic power at the provincial and local government levels (Walder, 1995). This decentralization resulted in local and provincial governments adopting protectionist policies to promote the local firms (Pigott, 2002: 38). Consequently, a group of researchers have conducted quantitative studies to estimate inter-province trade and the overall integration of China's markets. Naughton's (2000) study is the only study to assert that China's markets were becoming more integrated during the 1987-1992 period. A second study, Young (2000) used data from 1978 to 1997 to model the degree of integration. Young concluded that twenty years of

economic reforms resulted in “a fragmented internal market with fiefdoms controlled by local officials whose economic and political ties to protected industries resemble those of Latin American economies of past decades” (2000: 1128). Yet a third study, (Poncet, 2005) revisited the 1987-1992 time period used by Naughton calculating that consumers in 1987 purchased 12 times more local goods than goods from the rest of the country, and that this figure increased to 16 times more local goods in 1992. By 1997, this ratio had increased to 27:1. Based on this ratio, China is less integrated than EU. In a separate study, even Naughton (2003) concluded that disintegration occurred during the 1992-1997 period. Thus, there is strong empirical evidence to support the view that China consists of fragmented markets.

The lack of a single fluid market makes the geographical market strategy an important consideration for foreign firms entering China. A common strategy is for foreign firms to begin in a single province and use it as a base to spread to other provinces (Luo, 1998). A second strategy is to just establish a production base and export all production.

Investment Cycle Strategies. The timing of a foreign investment may not only be associated with the first-mover strategy, but also with the stage of the investment cycle. The resource-based view of the firm asserts that competitive advantages are achieved by having assets that are rare, valuable, and not easily imitated (Conner, 1991). Thus, the firm is conceptualized as a resource picking mechanism that strives to accumulate a superior combination of resources (Makadok, 2001). Carow, Heron, & Saxton, (2004) and McNamara, Haleblan, and Dykes (2008) found that acquisitions that occurred early in the investment cycle performed better than those that occurred during the peak and down cycle. Carow et. al. (2004) argue that the first-mover is more likely to be acting strategically with asymmetric information whereas the late-mover is more likely to be merely copying the strategy of the first-mover. The application of this perspective to investment cycles results in the assertion that it is best to be picking foreign partners early in the cycle while the best partners are still available. Once the investment cycle peaks and begins the down cycle there will be fewer partners to select from. In addition, firms may be able to negotiate better terms and garner more government support at the beginning of the up-cycle. Combining investing at the beginning of the up-cycle with the first-mover strategy gives the foreign firm first pick of the best partners and first shot at the market (Luo, 1998).

Managerial Control Strategies. Control is an important and complex matter in foreign invested firms that embodies multiple issues such as the relationship between informal and formal control structures (Yan & Gray, 1994), the relationship among resources committed, bargaining power, and equity ownership (Mjoen & Tallman, 1998), and the relationship between overall control and control over specific functions (Luo, Shenkar, & Nyaw, 2001). With regards to the first-mover strategy, however, I assert that the most important aspect of control is whether it facilitates decisive action.

Resource Commitment Strategies. The two most important aspects of resource commitment with regards to the first-mover strategy are financial/technological and human resource commitments. The financial and technological resources are difficult to separate. Leading edge technology is more costly than old technology. It is also more risky to invest leading edge technology because it may result in the creation of a formidable competitor. In spite of these obstacles, Isobe et al. (2000) in their study of 220 Sino-Japanese joint ventures found that there was a positive association between a high level of resource commitment to technology transfer and perceived economic performance. They assert that firms that are willing to commit resources are signally their overall commitment to establishing a successful joint venture.

Human resources are the second aspect of resource commitment. Technology transfer and management skills are often the primary reasons for Chinese firms to enter international joint ventures (Shenkar, 1990). In order for Chinese firms to obtain these goals there must be a significant amount of personal interaction between the Chinese and foreign partners in the joint venture (Luo et al., 2001). Consequently, in order for the foreign partner to achieve their performance goals, they must be as committed to achieving the Chinese partner's goals as they are their own. Thus, the foreign firms must be willing to commit human resources to engage the Chinese partner. Luo (2002c) found that personal and structural attachments between joint venture partners have a positive relationship with joint venture performance.

The Strategy Set

The strategy set consists of all strategic decisions made by managers while establishing a foreign venture. Therefore, the decision to be a first-mover is just one of many strategic decisions made. Thus, the tendency to analyze the first-mover decision as removed and independent of all of strategic decisions is seriously flawed. Consequently, previous empirical research that provides evidence of the first-mover strategy having a positive correlation with performance is unlikely to be true when all other strategic decisions are controlled for. This assertion is stated in the hypothesis below.

Hypothesis 2. After controlling for other strategic decisions, there will NOT be a positive relationship between performance and foreign firms that entered China before their competitor.

METHODS

Sample

The primary data used in this research is based on audited financial data and surveys. The official 2001 foreign investment data was provided by the Sichuan branch of the Ministry of Foreign Trade and Economic Cooperation (MOFTEC). This is the official audited financial statements that foreign invested firms are required to file annually and also includes data on the firms' characteristics and contact information for all 1613 foreign invested firms in Sichuan. The survey was originally written in English then translated and then back translated before being pre-tested. With the support of the Sichuan International Chamber of Commerce, the survey was faxed to 800 firms and 335 were completed and returned which is a 42 percent response rate.

Interviews with managers were used to assist in interpreting the results of the survey data. After the manager returned the survey, a subset of them were contacted to be interviewed. The focus of the interviews was to develop a deeper understanding of the manager's survey responses and probe into exactly what they perceived to be the advantages and disadvantages for their first-mover or late-mover firm. A total of 43 on-site interviews were conducted.

Dependent Variable

This research uses annual sales growth as its performance measure. The annual sales growth is self-reported by the manager completing the survey. Profit was not used because this was viewed as being sensitive data and thus unlikely to be reported accurately. Market share was also rejected because managers were likely to use different denominators when calculating it. Some managers used China as a whole and others used the smaller local markets that they

competed in. Consequently, the average sales growth is the best self reported data to measure performance.

Independent Variables

The survey data was the source of all the independent variables. Since all of the independent variables are defined as being strategies, they are dichotomous variables that are coded with a 1 to indicate the presence of a strategy. The main independent variable in this research is the first-mover variable. This variable is coded 1 if the managers indicated that they were the first foreign invested firm in Sichuan for their product or service. The remaining independent variables that constitute the foreign investment strategy set are defined below.

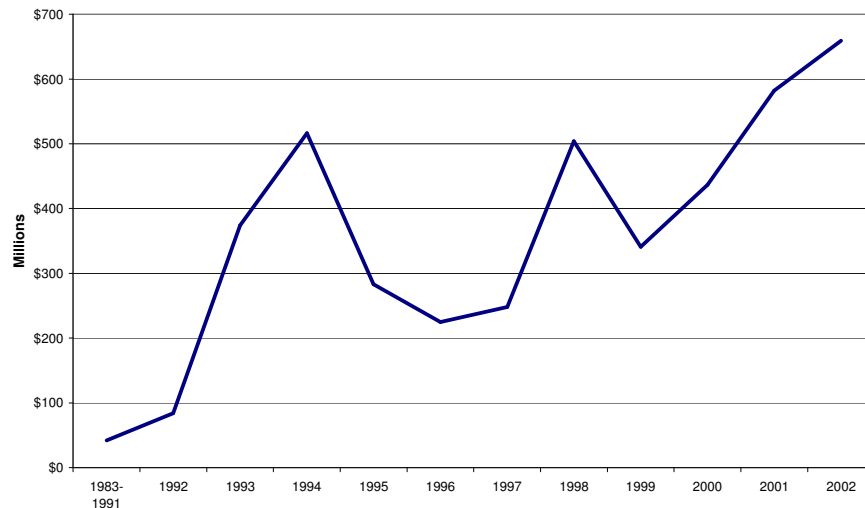
Partner Selection Strategies. The two partner selection strategies are unrelated diversification and using established relationships. The diversification variable is coded a 1 when both parties do not have previous experience in the product or service of the joint venture, or when the WFO China’s subsidiary doesn’t have experience in the product or service being produced. The “no prior relationship” variable is coded 1 when the joint venture partners did not previously have a trade, licensing, supplier, personal, or other form of relationship prior to the establishment of the joint venture.

Market Geography Strategies. The first aspect of the market geography strategy is whether the foreign investment firm will produce for the domestic or foreign market. The survey asked the managers what percent of the firm’s products were exported. If there were not any exports, the “no export” variable was coded with a one. If the firm’s entire product was exported, the “all export” variable was coded with a 1.

The second aspect of the market geography strategy is whether the foreign investment firm will focus only on Sichuan or whether they will have a broader China market strategy. The managers were asked to list the top three sales provinces and the percentage of the firm’s sales for each of these provinces. If Sichuan was not listed among the top three provinces, the “sales outside Sichuan” is coded with a 1. If Sichuan was listed as accounting for 100 percent of the firm’s sales, then the “all Sichuan sales” variable is coded with a 1.

Figure 1

Sichuan's Foreign Direct Investment



Source: Sichuan Foreign Economic Relations & Trade: 2003 Annual Report

Investment Cycle Strategies. The investment cycle strategy focuses on when is the best time to invest in the cycle. Sichuan's investment cycle is illustrated in Figure 1, and is quite distinct. The year 1992 was before the beginning of the investment cycle in Sichuan. Prior to 1992 little foreign investment had occurred. Therefore, the "1992-begin cycle" variable is coded a one for all firms that began operations that year. Similarly, 1993 is the up-cycle year, 1994 is the peak year, 1995 is a down-cycle year, and 1996 is bottom of the cycle. Each year is a separate variable and coded with a 1 for the year that it represents.

Control Strategies. Control strategies focus on decision making which is crucial when it interacts with the first-mover strategy where moving decisively is of the utmost importance. The easiest way to measure control is by equity ownership. When the Chinese partner (CP) is the majority owner the "CP decision maker" variable is coded with a 1, and when the foreign partner (FP) is the majority owner the "FP decision maker" variable is coded with a 1. The "equal ownership" variable is coded with a one for 50-50 joint ventures. Since majority ownership cannot be assumed to always be the equivalent of being the decision-maker, additional variables are coded based on who the respondents identified as the main decision maker. Thus, the "CP decision maker" variable is coded a 1 when the Chinese partner is indicated to be the main decision maker, "FP decision maker" variable is coded a 1 when the foreign partner is indicated to be the main decision maker, and "joint decisions" variable is coded a 1 when the respondent indicates that decisions are made jointly.

Resource Commitment Strategies. Since the first-mover is operating in a high-risk environment where the firm is likely to encounter set backs, the foreign investor must be willing to commit additional resources to overcome unforeseen obstacles. If managers indicated that the foreign investor was willing to commit additional resources, the "more resources" variable is coded with a 1. An additional measure of the foreign investor's resource commitment is their willingness to assign foreign expatriates to the firm. If the manager indicated that one or more expatriates were working at the firm, the "expatriate on-site" is coded with a 1. If the firm's general manager is an expatriate, the "expatriate GM" is coded with a 1.

Control Variables

There are several important control variables that need to be included in the model. First, the mode of entry is often considered as a strategy that is chosen by the foreign investor. For Example, Pan and Chi (1999) found that joint ventures performed better than WFOs. In China, however, foreign investors have not been permitted to establish WFO subsidiaries in all industries. Since this strategy wasn't available to all firms in the sample, it is better to consider the WFO variable a control variable.

Second, size of the firm is important in how it relates to first-movers and the performance measures. Gaba, Pan, & Ungson (2002) found that larger U.S. firms were more likely to be first-movers in China. The size of the foreign firm is also often correlated with resource endowments, which have been found to be important to the success of early movers (Mitchell, 1989; 1991). In addition, large firms are more likely to achieve larger market shares. Therefore, the amount of the foreign investment and the number of employees in the firm are used as control variables.

Third, the year that a firm began production may have a significant effect on the performance measures. Pan and Chi (1999) found that MNCs that entered China in an earlier year had a higher level of profit than those that entered in a later year. Since the list of firms is from 2001 financial records and the surveys were distributed in 2003 all firms would have been operating for at least two years.

Finally, particular industry characteristics may affect first-mover opportunities and performance. Song, DiBenedetto, and Zhao (1999) found that managers from manufacturing firms generally perceived first-mover advantages and risks to be greater than managers from the service sector. In addition, industry specific characteristics such as technology change, intensity of rivalry, and the pace of market evolution can determine the extent to which first-mover advantages exist (Paul & Wooster, 2008; Suarez & Lanzolla, 2007). Therefore, each firm's product description was used to assign a two digit SIC code. Based on this SIC variable, the manufacturing, service, and real estate sectors accounted for 90 percent of the total sample, and 72, 11, and 7 percent respectively. Therefore, control variables were constructed for each of these three sectors. Furthermore, the overall large proportion of manufacturing firms in the sample necessitated additional control variables to be created for the food processing, chemical, and electronics sectors each of which comprised at least 10% of the sample.

RESULTS

Table 1 presents descriptive statistics for the correlations for the dependent and independent variables. The N column is the number of valid responses for each variable.

First-Mover Strategy

Table 2 presents the results of the GLS models that control for heteroscedasticity. The dependent variables for models 1 and 2 are annual sales growth percent. Model 1 only includes the first mover variable just as is typically done in first mover research. Based on the results of Model 1, first-movers have significantly higher annual sales growth than late-movers. Therefore, Hypothesis 1 is supported. This result is consistent with prior research that has omitted other strategic decisions made by managers to just focus on the first mover decision.

Model 2 in Table 2 includes additional strategic decisions that may be considered by managers when entering China. In Model 2, the first mover variable is no longer significant. Instead, two other variables emerge as being significant. First, there is a negative correlation between sales growth and focusing on only selling in Sichuan. Not surprisingly, firms that invest in Sichuan with the goal to only sell in Sichuan have a lower annual growth in sales. Second, there is a positive correlation between having a foreign partner that is willing to commit more resources and annual sales growth. Therefore, it is more important that firms enter China being committed to invest additional resources than being a first mover. Therefore Hypothesis 2 is supported.

DISCUSSION

The purpose of this study was to not only investigate the relationship between the first-mover investment strategy and performance, but also additional strategic variables that are part of the strategic decision set. When other strategy effects are not controlled for, there is an overall significant first-mover advantage for the sales growth performance measure. These findings are largely consistent with previous findings that found positive effects for first-movers. The inclusion of additional strategy variables in the model, however, removed all first-mover effects. Instead, having a foreign partner that is willing to invest additional resources becomes the only variable that has a positive correlation with performance. Therefore, it is important to conceptualize firm strategy as a broader set of strategies.

Table 1
Means, Standard Deviations, and Correlations for Independent and Dependent Variables

Variables	N	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1. Market Share	157	26.3	24.9	1																						
2. Sales Growth	186	25.5	27.6	.06	1																					
3. Sales/Investment	335	25.3	99.9	.08	.12	1																				
4. First Mover	323	.63	.49	-.02	.13	-.09	1																			
5. Diversification	316	.16	.37	-.16*	-.03	.01	-.08	1																		
6. No Prior Relation	219	.40	.49	-.16	-.03	-.10	.10	.07	1																	
7. No Exports	325	.51	.50	-.16	-.07	.03	-.18**	.09	.22**	1																
8. All Exports	325	.07	.25	.05	.04	.06	.01	-.06	-.13	-.36**	1															
9. Sales Outside Sichuan	255	.15	.36	.00	.10	.08	.10	.01	-.06	-.13*	-.05	1														
10. All Sichuan Sales	255	.10	.31	-.12	-.13	.00	-.24**	.00	.05	.21**	-.05	-.23*	1													
11. 1992-Begin Cycle	332	.05	.21	.12	.01	-.02	-.06	-.09	.05	-.09	-.07	-.01	.09	1												
12. 1993-Up Cycle	332	.13	.33	-.06	-.07	-.01	-.02	.05	.04	.01	.06	-.03	.01	-.09	1											
13. 1994-Peak Cycle	332	.09	.29	-.07	.03	-.02	.13*	-.02	.04	.06	-.06	-.05	-.04	-.08	-.12*	1										
14. 1995-Down Cycle	332	.17	.38	.18*	-.09	-.01	.05	-.02	.02	.05	-.02	.00	-.01	-.10	-.14**	-.13**	1									
15. 1996-Bottom Cycle	332	.10	.31	-.12	.00	-.05	-.07	.04	.11	.08	.00	.09	-.03	-.09	-.13*	-.12*	-.14**	1								
16. CP Majority Owner	308	.63	.49	.05	.03	.10	.04	-.07	-.12	-.01	-.03	-.02	-.07	.05	.01	.08	.02	-.09	1							
17. FP Majority Owner	308	.28	.45	.02	-.01	-.07	-.11*	.12*	.03	-.01	.06	.02	.08	-.01	-.03	-.08	-.03	.08	-.85**	1						
18. Equal Ownership	308	.09	.29	-.13	-.05	-.05	.12*	-.08	.15*	.03	-.05	.00	-.02	-.07	.03	-.01	.03	.01	-.25**	-.31**	1					
19. CP Decision Maker	230	.56	.50	.17	-.07	-.04	.02	.00	-.14*	-.15*	.17*	-.13	-.02	.14*	.11	.13	.00	-.09	.46**	-.33**	-.24**	1				
20. FP Decision Maker	230	.16	.37	-.06	-.05	-.02	-.08	-.03	.03	-.01	-.03	.03	.04	-.08	-.02	-.11	.05	.05	-.38**	.40**	.02	-.44**	1			
21. Joint Decisions	230	.28	.45	-.13	.11	.06	.05	.05	.11	.17*	-.15*	.11	-.01	-.08	-.11	-.04	-.04	.05	-.18**	.03	.23**	-.67**	-.36**	1		
22. More Resources	294	.49	.50	.05	.23**	-.05	.13*	-.15*	.03	-.08	.08	.02	-.11	-.05	-.18**	-.02	-.12*	-.05	-.23**	.26**	-.06	-.13*	.09	.06	1	
23. Expatriate On-Site	329	.43	.50	.00	.06	-.02	.08	.00	.10	-.07	.02	.02	-.07	.05	.07	-.09	-.12*	.02	-.23**	.21**	.04	-.24**	.27**	.03	.20**	1
24. Expatriate GM	334	.16	.37	-.10	.02	-.03	.00	-.09	.15**	-.04	.09	.01	-.03	.03	-.15**	-.06	-.04	.07	-.32**	.26**	.11	-.34**	.34**	.07	.19**	.51**

* $p < .05$

** $p < .01$

Table 2
Results of GLS Regression Model for All Strategy Effects

Variables	Model 1		Model 2	
First Mover	10.27*	(4.84)	5.06	(5.67)
Diversification			1.56	(8.89)
No Prior Relationship			2.57	(4.99)
No Exports			-3.27	(8.05)
All Exports			-1.30	(10.79)
No Sichuan Sales			11.18	(10.50)
All Sichuan Sales			-10.29*	(5.04)
1992-Begin Cycle			18.66	(12.36)
1993-Up Cycle			2.898	(7.89)
1994-Peak Cycle			12.00	(10.83)
1995-Down Cycle			2.59	(7.63)
1996-Bottom of Cycle			13.00	(14.99)
Chinese Partner (CP) is Majority Owner			10.38	(7.43)
Foreign Partner (FP) is Majority Owner			7.86	(9.62)
FP Willing to Invest More Resources			13.53*	(5.63)
Expatriate On-Site			8.99	(8.07)
Expatriate General Manager			-7.23	(11.29)
WFO	-3.97	(4.96)	-9.02	(10.33)
Investment (in millions)	-.05	(.06)	-.10	(.10)
Number of Employees (100s)	-.21	(.59)	.32	(2.10)
Year Production Began	2.06*	(.98)	2.66	(1.43)
Manufacturing Sector	13.80*	(5.19)	15.00*	(7.26)
Food Processing Industry	3.58	(10.23)	7.67	(16.94)
Chemical Industry	-1.94	(7.32)	-7.03	(10.63)
Electronics Industry	-11.28	(9.18)	-19.74*	(9.08)
Service Sector	-6.55	(6.23)	-2.90	(6.57)
Real Estate Sector	15.31	(10.86)	14.64	(12.31)
Intercept	-4090*	(1947)	-5335	(2875)
R ²	.10		.20	
Overall F	1.50		1.32	
df	11, 170		26, 133	

^a Standard errors are in parentheses.

p* < .05 *p* < .01

The prominence of the first-mover strategy may be due to the power of the theoretical concept. The first-mover strategy is easy to conceptualize and easy for managers to act on. Likewise, the broad application of the first-mover advantage to many business functions makes it attractive for researchers. Thus it has a lot of face value for researchers as well as practitioners, which tends to overshadow the importance of other strategic decisions.

One explanation for the first-mover advantage found in this study is that the first-mover strategy may be a proxy for careful consideration of the proper strategy mix. As Boyd and Bresser (2008) found that late-movers, which responded too quickly and before a comprehensive strategy could be developed, were less successful than first-movers. Perhaps firms that are first-movers are more cautious and think more seriously about each strategic decision that makes up the strategy set. As Carow et al. (2004) have argued, the first-mover is acting more strategically whereas the late-mover may be merely blindly copying the strategic decisions of the first-mover. Consequently, the first-mover variable becomes a proxy for getting the particular strategic decision set that is the best fit with the firm's particular competencies and the environment, while the late-mover variable becomes a proxy for under analyzing the strategic decision set that would be best for the firm.

An alternative explanation of the results found in this study is that the first-mover advantage is a static concept that has limited benefit in China's dynamic environment. Suarez and Lanzolla (2006) argue that environments that have an abrupt pace of technology and market evolution disable the first-mover advantage. In the case of industries with rapidly changing technologies, the first-mover advantage can be disabled when late-movers leap frog the first-movers' technology. In the case of abrupt market evolution, which is defined as a market quickly moving to the maturity phase of the product life cycle, the switching costs are reduced that kept buyers locked into the first-mover's products. Although Suarez and Lanzolla were theoretically focused on environments based on industries and product categories, it is not difficult to extrapolate these concepts to China's environment as a whole. The evolution of technology and markets within China has been extremely abrupt over the last 30 years of market reforms. In this dynamic environment, it is not surprising to find that there is no first-mover advantage when other strategic decisions are controlled for. Instead, the results from the Sichuan data reveal that the ongoing willingness to commit additional resources is a stronger predictor of performance in this dynamic environment. The willingness to commit additional resources when operating in a dynamic environment reveals a responsive approach which is a sharp contrast to the first-mover strategy that is a one time static strategic decision. Although a short term first-mover advantage is not inconsistent with the results, the willingness to commit additional resources is a better predictor of long term performance.

Theoretical Implications

The primary theoretical contribution of this study is the conceptualization of the first-mover strategy as being one piece of a broader puzzle of strategies that managers put together when making foreign investments. Analysis of the first-mover strategy within context of foreign investment strategies has lagged behind marketing applications to new product entry in realizing that a market strategy is really a set of strategic decisions (e.g. price, product characteristics, distribution, and promotion). I assert that the foreign investment strategy also is comprised of a mix of strategies. Consequently, the first-mover strategy cannot be analyzed in isolation of other strategies no more than a pricing strategy can be analyzed separate from other components of the marketing mix. This approach was confirmed in my interviews with managers. The managers

always explained their foreign investment strategies as sets of strategic decisions rather than as a single isolated strategy.

Limitations

There are three limitations to this study. First, the data used in this study doesn't include longitudinal data and may suffer from a survivor bias where the failed first-movers are no longer present in the sample making the first-movers appear to be better performers. VanderWerf & Mahon's (1997) meta-analysis, however, did not support the assertion of survivor bias, and thus there is no reason to assume that the data used in this study has survivor bias. Nevertheless, more data is always better than less data.

Second, although I have argued that a strategy is a set of strategic decisions that must be analyzed as a set, I have avoided looking at interaction effects that might exist among the set of strategic decisions. Although it may be possible to add the additional variables needed to analyze the interaction between the first-mover variable and each of the other strategic decision variables, the data set is not extensive enough to analyze all possible combination of strategies among the variables. The difficulty in analyzing deeper levels of interactions is that the data used in this study is not large enough to support more levels of interactions. The problem becomes apparent if one considers the number of observations needed to support the analysis of three interacting independent strategies that are each implemented by 30 percent of the firms. In this example, only about 3 percent ($.3 \times .3 \times .3$) of the firms would be using all three strategies. Consequently, it would require a large number of observations, and an analysis of the interaction of six or seven strategies would require an exponentially larger data set.

Third, the data used in this study is exclusively from the Sichuan province. Although Sichuan is by itself significant based on its geographical size and population, the results are unlikely to be generalized to China as a whole. Nevertheless, Sichuan is quite representative of inland China where the next wave of foreign investment is likely to occur. In addition, China has very segmented markets as well as provincial and local governments that are quite autonomous. Consequently, broad claims about China should be viewed with caution.

Conclusion

The empirical evidence for the first-mover advantage may not be as well grounded as many have thought. When the first-mover strategic decision is analyzed in isolation from other strategic variables, which is commonly done in many empirical studies, it indicates that firms that enter China before their competitors perform better. Unfortunately, it is more logical to assume that managers dynamically develop a set of strategic decisions that ultimately determine the firm's performance. To extrapolate one static decision from the strategic decision set and make broad assertions about its effect of performance is an over simplification of the strategic decision process.

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