

**When to Ally and When to Acquire:  
Expansion Strategies of Multinational Firms in China**

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### **Abstract**

Most companies do not compare acquisition and alliance before picking one, and often end up with the ‘wrong’ thing (Dyer, Kale, and Singh, 2004). Even though academic literature does compare acquisitions and alliances, there exist inconsistent explanations and findings. In this study, we re-examine the choice of multinational firms in partial-ownership acquisitions and start-ups (joint ventures) when they expand into an emerging economy, China. Drawing upon the existing literature, we examine the influence of product relatedness, competitive rivalry, task-specific knowledge, and location-specific knowledge. Our sample consists of 2,152 partial acquisitions and start-ups in China in 257 product sectors from 23 countries between 1985 and 2001. Our findings offer new insights on partial ownership international expansion strategies.

**Key Words: Acquisitions, Start-ups, Ownership, Diversification, FDI**

## INTRODUCTION

In a recent article, Dyer, Kale and Singh (2004) pointed out that although executives talk about acquisitions and alliances in the same breath, few treat them as alternative mechanisms by which companies can attain goals. Most companies do not compare the two strategies before picking one, and often end up doing the ‘wrong’ thing. There is an increasing academic literature on diversification strategies (Brouthers and Brouthers, 2000; Harzing, 2002; Mitchell and Shaver, 2002; Pan and Tse, 2000; Pennings et al., 1994; Shaver, 1998). However, there are inconsistent explanations and findings.

In this study, we attempt to make three specific contributions. First, the existing literature suggests that firms’ prior experience plays a key role (Banerji & Sambharya, 1996). However, empirical findings have not been consistent (Hennart & Park, 1993). To better understand the role of prior experience, we need to go a step farther and examine the specific aspects of prior experience, i.e., the type of prior knowledge, and the level of prior knowledge (Madhok, 2002). We need to examine firms’ specific knowledge about acquisitions and greenfield start-ups. In the push for market expansion, some firms have accumulated more knowledge in acquisitions, while other firms are better at setting up greenfield operations (Chang & Rosenzweig, 2001). We expect firms with more knowledge in acquisitions to engage in more acquisitions (Dyer, Kale, and Singh, 2004). In this study, we will examine the impact of firms’ task-specific knowledge on their diversification choices.

Further, in the process of overseas diversification, firms accumulated specific knowledge about foreign markets (Madhok, 1997). As suggested in the literature, firms often follow an incremental involvement process in a new foreign market, which allows them to gradually develop location-specific knowledge about the host country (Kogut & Singh, 1988). The existing literature also suggests that greenfield start-ups provide a gradual learning experience in a new host country (Chang, 1995; Hennart & Reddy, 1997). Thus, it is possible that the lack of adequate location-specific knowledge

reduces the likelihood of firms choosing acquisitions in a foreign country. Therefore, we will also examine the impact of firms' location-specific knowledge on their diversification choices. In short, our first contribution is that by examining two specific types of firm knowledge, we hope to better predict how firms' prior experience affects their choice of diversification modes, and to shed some light on the inconsistency in previous empirical findings.

Second, we propose that it is desirable to test the effect of diversification modes from that of ownership. The choice facing multinational firms includes how to set up the foreign operation and how much to own (Barkema and Vermeulen, 1998; Hennart and Reddy, 2000). The first choice is between start-ups and acquisitions. The second choice is between full-ownership and partial-ownership. These two choices are often intertwined. However, from a theoretical point of view, not separating these two issues leads to ambiguous understandings in the literature and ambiguous terminologies. For example, greenfield investment was used in Brouthers and Brouthers (2000), and new venture was used in Woodcock et al. (1994). Apparently, 'greenfield investment' can be full-ownership or partial-ownership. Therefore, it is necessary that we spell out clearly the four possible expansion modes: full-ownership start-ups, partial-ownership start-ups, full-ownership acquisitions, and partial-ownership acquisitions

Hennart and Reddy (2000) first observed that several studies suffered from comparing partial-ownership start-ups (joint ventures) against full-ownership acquisitions, which can be problematic (Chang and Rosenzweig, 2001; Hennart and Reddy, 1997; Zejan, 1990). As pointed out by Barkema and Vermeulen (1998), we need to tease apart the impact from ownership in the analysis of the choice between start-ups and acquisitions. Otherwise, it is hard to tell what is driven by expansion mode considerations and what is driven by ownership considerations.

Extending the work by Barkema and Vermeulen (1998), we propose that it is useful to focus just on partial-ownership expansions. In partial-ownership expansions, firms are seeking alliance partners in a local firm. Synergy and fit between the two firms play a pivotal role. By focusing only on partial-ownership expansions, we are able to tap into the information of two firms in collaboration (Madhok and Tallman, 1998). For instance, we need to examine the impact of product relatedness between the multinational firm and the local firm, which would be missing information for full-ownership start-ups. As such, our study focuses only on partial ownership acquisitions and start-ups.

Finally, the domain of our study is the diversification of multinational firms in China. While the current literature is based mostly on empirical studies in developed countries (Hennart & Reddy, 1997; Chang & Rosenzweig, 2001; Kogut & Singh, 1988), it is useful to know how multinational firms are expanding to China. In 2002, China overtook the United States and became the largest recipient of FDI in the world with a record inflow of \$53 billion (World Investment Report, 2003). From strategic intent perspective, many multinational firms are pursuing the market-seeking diversification in China, rather than capability-seeking diversification (Barkema & Vermeulen, 1998; Luo & Park, 2001). Empirically, we tried to establish a comprehensive sample, containing 2,152 cases of partial diversifications in 257 4-digit SIC product sectors over a time span of 17 years (1985 to 2001). We also made improvements in the measurement of several variables. For instance, Chang and Rosenzweig (2001) used a dummy variable in measuring organizational learning. We measured organization learning as a cumulative experience of prior diversifications. Improved measures enabled us to test more accurately the impact of effects under study.

## **THEORETICAL BACKGROUND**

Partial ownership means partial interdependence and alliances between two or more firms, while full ownership is within one firm. There are a variety of theoretical explanations on why firms

choose partial ownership in international markets, including both endogenous and exogenous forces (e.g., Beamish and Banks, 1987; Mowery et al., 1996; Tallman and Shenkar, 1994). For example, firms choose partial ownership to exploit the complementarities among partner firms and achieve technological superiority, and to reduce transaction costs due to opportunism, bounded rationality, uncertainty, and small number conditions. Firms go into partnerships because of exogenous forces such as the requirement from the host country.

There are several theoretical explanations for acquisitions, drawing from the theory of growth of the firm (e.g., Hennart and Park, 1993; Penrose, 1959), transaction cost theory (e.g., Brouthers and Brouthers, 2000; Chang and Rosenzweig, 2001), and organizational learning (e.g., Barkema and Vermeulen, 1998).

The theory of growth of the firm suggests that acquisitions enable firms to achieve a rapid speed of expansion (Hennart and Park, 1993). Acquisitions provide the immediate access to the target market, including business network and relationships, suppliers, distributors, and customers (Chang and Rosenzweig, 2001; Simmonds, 1990). If firms insist on greenfield expansion, it may take a longer time to recruit and train managers, due to organizational constraints. Thus, firms may prefer to expand through acquiring existing businesses. We expect that this is a particularly strong motivation for multinational firms expanding into rapid growing economies.

Transaction cost theory suggests that firms may choose to acquire certain complementary assets externally, as opposed to developing them internally (Dyer, Kale and Singh, 2004). For example, firms may find it advantageous to acquire an existing distribution network when expanding into a foreign market, because the existing distribution may have occupied the ideal locations. The resource-based view (e.g., Barney, 1991) suggests that firms are more likely to engage in acquisitions when they possess the right resources and capabilities for inter-firm diversifications (Madhok, 2002). More

importantly, it shows that it can be costly to acquire assets that are embedded in other firms such as tacit knowledge and management routines. However, there are many assets such as distribution channel and production facilities that are easily unbundled from the firm selling it and thus are readily transferable between firms (Hennart and Park, 1993). In short, firms may be able to obtain desirable assets at a lower cost through acquisitions, because of factors such as redundant capacity in the market (Dyer, Kale and Singh, 2004).

Acquisition is also a means of organizational learning (e.g., Fiol and Lyles, 1985; Vermeulen and Barkema, 2001). Through acquisition, firms learn new market information, rules, procedures, conventions, and even new organizational routines (Hayward, 2002; Levitt and March, 1988). For instance, Japanese firms with little experience of the U.S. market were found to prefer acquiring US firms (Hennart and Park, 1993).

Acquisitions are sometimes more difficult to do. The acquiring firm often has less information to assess the true value of the acquired firm, due to information asymmetry. Further, the assets that are desirable could not be disentangled from the non-desired assets (Hennart and Reddy, 1997). As a result, acquisitions are often carried out at a premium price, often as high as 20%-40% (Eckbo and Langohr, 1989). Further, integration between the acquired firm and the acquiring firm can be a long process, and can be difficult (Calori et al., 1994). Differences in organizational and national cultures may cause tensions and hostility, and the lack of location-specific knowledge about the host country hinders the adoption of acquisitions (Barkema et al., 1996; Weeks and Galunic, 2003; Weber et al., 1996).

## **HYPOTHESES**

### ***Diversification Relatedness***

Transaction cost theory and resource-based perspective suggest that acquiring firms' knowledge about the acquired firms plays a key role (Hennart and Reddy, 1997). This knowledge will

be useful in identifying the right target firm, reducing the cost of acquisition, and the post-acquisition integration. For instance, Hennart and Park (1993) pointed out that the acquiring firm's knowledge of the acquired firm is important for the success of the acquisition. The more the acquiring firm knows about the acquired firm, the better able the acquiring firm is to integrate the acquired firm and achieve synergy between the two firms (Andersson and Svensson, 1994; Yip, 1982).

The knowledge of the acquiring firm varies with the extent of diversification relatedness. When the firm expands into related product sectors, it has more knowledge about the firms in those sectors, and hence, more likely to choose acquisitions. In the past, diversification relatedness has been examined from the extent the acquiring firm broadens from its core product sectors into related product sectors (Balakrishnan and Koza, 1993; Barkema and Vermeulen, 1998; Brouthers and Brouthers, 2000; Harzing, 2002; Pennings et al., 1994).

Product relatedness between partners in partial start-ups (joint ventures) has been shown to have positive influence on the performance of joint venture (e.g., Luo, 2002). However, the existing literature has not examined in a rigorous manner the product relatedness between acquiring firm and acquired firm in partial acquisitions. We argue that the missing of acquired firm's information could be particularly problematic in the cases of partial acquisitions, because integration takes place between two firms, as opposed to one firm taking over another firm in the case of 100% acquisition. Therefore, we argue that the level of product relatedness needs to be examined from both acquiring firm and acquired firm in partial acquisitions.

When acquiring firm and acquired firm are in related product sectors, the cost of obtaining and assessing information is lower (Hennart and Reddy, 1997), the likelihood of finding a commonality, complementarity, and technological overlap is higher (Mowery et al., 1996), and the chance of smooth integration is higher (Balakrishnan and Koza, 1993; Kogut and Singh, 1988).

When expanding into rapid growing economies, multinational firms look for the market-related capabilities of local firms, instead of technology or innovation capabilities (Luo and Park, 2001). Multinational firms look for local firms in the same or close related product sectors in order to tap into the acquired firms' complementary assets in market channels, partnerships, and customers. This type of market-seeking horizontal expansion is more likely to succeed for firms in related product sectors (Pennings et al., 1994).

Finally, the acquiring firm buys a certain percent of ownership of the target firm in the case of partial acquisition. Even though it is only part of the target firm, it is not possible for the acquiring firm to pick and choose which part of the target firm to buy. In the case of partial start-ups (joint ventures), a new entity is formed and the firms involved can pick and choose what to be in joint ventures. From the point of view of information asymmetry, the acquiring firm will find it difficult in gathering, processing, and assessing the value of target firm. Hence, partial acquisitions pose a higher level of risk and uncertainty than partial ownership start-ups. Thus, the need to be in related product sectors as the acquired firm is stronger, so as to reduce the level of risk and uncertainty. In the case of partial start-ups, the new entity can be structured to the liking of the firms involved, and the argument from product relatedness is less compelling.

Taking these factors together, we hypothesize the following:

**H1:** Multinational firms are more likely to choose partial acquisitions, instead of partial start-ups, when they share a high level of product relatedness with the firm in the local market.

### ***Competitive Rivalry***

Firms often enter a foreign market as a response to the competitive rivalry in the product sector (Levitt and March, 1988; Shaver et al., 1997). In studying the timing of entry, Gaba et al. (2002) suggested that firms react to competitive behavior for two reasons. First, firms use the behavior of

other firms as a justification for their own behavior. Second, firms often have a sense of paranoia and fear that either the opportunity will be completely gone, or those that have entered will put up entry barriers high enough to deter subsequent entries. Silverman and Baum (2002) also pointed out that rival's alliances are often harmful to firms. Mitchell (1991) suggests that firms are likely to enter earlier when many firms have entered and the threat of competition is high. When rival firms have entered a foreign market, the competitive pressure increases upon the firms that have not entered that market.

The competitive rivalry exerts pressure for firms to speed up their market entry in foreign market (Dyer, Kale and Singh, 2004). The theory of growth of the firm suggests that firms may take a longer time to carry out internal expansion, as opposed to through acquisitions (Hennart and Park, 1993). As pointed out by Hennart and Reddy (1997), firms late in a key market can enter the market quickly and build up a sizable market presence through acquisitions (Chang and Rosenzweig, 2001).

From the point of view of the acquiring firm, competitive behavior also exists in terms of the pool of firms as potential targets of acquisition. When competing firms are buying up local firms, the choice of available local firms becomes increasingly limited. Facing a dwindling supply of potential local firms, firms often feel an urgency to take action. This implies that decision and implementation of acquisitions should be carried out faster under the competitive pressure from the rival firms. Thus, all other factors being equal, we expect that an increasing number of prior cases of acquisition in the same product industry will have a positive impact of the choice of acquisition of firms in a foreign country.

Nonetheless, in the rush to enter the foreign market, the acquiring firm may not have adequate time and resources to assess the acquired firm. In order to minimize the exposure to risks and uncertainties, it is sensible to acquire part of the target firm, instead of the whole firm. Further, through partial ownership, the acquiring firm forces itself to learn about the acquired firm and the host country

environment. In short, acquisitions are better than start-ups for the speed, and partial ownership is better than full ownership for the learning and reducing risks and uncertainties. Thus, we hypothesize:

**H2:** Firms are more likely to choose partial acquisitions, instead of partial start-ups, in order to speed up the market entry as a response to competitive rivalry.

### ***Task-Specific Knowledge***

As mentioned earlier, the cost of acquiring other firms can be high, especially in terms of integrating the foreign firms into the acquiring firm's organizational culture and routines. Firms that have accumulated some know-how in acquiring foreign firms are in a better position to acquire a foreign firm (Wilson, 1980; Zejan, 1990). Hennart and Park (1993) pointed out that firms having sophisticated management control systems are more likely to apply such systems in acquiring other firms. This expertise allows the acquiring firm to reduce the cost of acquiring other firms. As a result, such firms become more diversified than firms without such expertise. In short, the accumulated experiences and developed expertise play an important role in the choice of diversification modes.

In the field of international business, many studies have used information about firms' prior experience to measure this task-specific knowledge in two ways. One is to use the number of years of presence in foreign markets (Hennart and Reddy, 1997), and the other is to use firms' export ratios (Banerji and Sambharya, 1996). While these two measures reflect firms' exposure in foreign markets, they do not accurately pinpoint the specificity of the knowledge used in diversifications. As pointed out by Chang and Rosenzweig (2001), the inability to pinpoint the specific type of knowledge has prevented researchers from uncovering the precise mechanism through which firms leverage their prior experiences. The lack of precise pinpointing of the effect has also contributed to an inconsistency in empirical findings. For instance, Hennart and Park (1993) found no relationship between prior experience and the preference of acquisitions over start-ups.

Thus, it is important to examine the precise type of task-specific knowledge in order to gain a better understanding of foreign acquisitions. Westney (1988) found that once a firm carries out an acquisition, it may prefer to continue with the same mode of entry, all else being equal. This tendency, called path dependency, reflects the fact that firms often tend to persist in the same type of activity over time, and that they try to apply the learning from prior experience in similar choices in order to reduce risks and increase the likelihood of success (Miller and Friesen, 1980). Firms that have developed a knowledge base for acquisitions naturally want to apply that knowledge. They have learned how to assess the value of the target firm, how to carry out the acquisition, and how to transform the acquired firm to fit into its own organizational culture and routines. In short, firms have accumulated know-how and expertise as they expand, and this task-specific knowledge influences the path of subsequent expansion (Pennings et al., 1994). In other words, expansions are more likely to succeed if they are similar to and related to what a firm has done before.

Apart from the path dependent behavior, information asymmetry argument also suggests that firms are more likely to use acquisitions if they have more experiences in prior acquisitions. From the point of evaluating potential partner firms, it appears that it is harder to evaluate the whole firm than separate parts of the firm. In the case of acquisition, the multinational firm needs to gain an overall assessment of the target firm. In the case of start-up, the multinational firm needs only to evaluate the new entity that is being set up with the local firm. Thus, prior experience in acquisitions plays an important role in gathering information and evaluating the target firm.

Thus, when deciding between partial acquisition and partial start-up, we predict that firms with prior acquisition experiences will favor partial acquisitions over partial start-ups. In this study, we will examine the proportion of acquisitions in the overall international diversifications of firms, which include both acquisitions and start-ups, as suggested by Pennings et al. (1994).

**H3:** Firms are more likely to choose partial acquisitions, instead of partial start-ups, when they have carried out more prior acquisitions.

### *Location-Specific Knowledge*

Apart from task-specific knowledge, there is also location-specific knowledge, which refers to the extent to which firms know about the business norms, practices, and the overall idiosyncratic nature of the host foreign country.

When first entering a foreign country, the firm has little knowledge about that country's market environment, and is faced with higher risks and uncertainties. As its location-specific knowledge increases, the firm becomes more confident in its ability to operate in the foreign market. Therefore, the literature proposes a gradual incremental involvement in foreign markets (Chang and Rosenzweig, 2001; Johanson and Vahlne, 1977; Shaver et al., 1997). As pointed out earlier, a major impediment to foreign acquisitions is the high management cost involved in integrating the acquired firm in terms of organizational culture, systems, and routines (Kogut and Singh, 1988). Evidently, the more location-specific knowledge the firm has about the foreign market, the better able the firm is to carry out post-acquisition integration. Hennart and Reddy (1997) found that the longer the experience of Japanese firms in the United States, the greater their preference for acquisitions becomes. Thus, a lack of location-specific knowledge may increase the transaction costs in acquisitions, especially for their first entry into a foreign country (Dyer, Kale and Singh, 2004; Madhok, 1997).

Furthermore, the first diversification into a new foreign market often involves the best a firm has to offer, in order to reduce the liability of 'being foreign' (Chang, 1995). The best a firm has to offer is often embedded in its core competencies. To extend the core competencies abroad, the firm often has to replicate what it does best at home. Such replication is best implemented through the internalization of operations (Madhok, 1997). Therefore, start-ups are often perceived as an effective

mode of diversification in this case (Hennart and Park, 1993). Over time, the firm will acquire knowledge about local markets, build up local business networks, gain local management know-how, and learn from other foreign firms in the host country (Shaver et al., 1997). The firm will integrate this local knowledge into its core competencies. As the need to resort to internalization reduces, the likelihood for acquisition increases over time (Chang and Rosenzweig, 2001). Taken together, we hypothesize that the first entry of firms in a foreign market is less likely to be an acquisition.

**H4:** Firms are more likely to choose partial start-ups, instead of partial acquisitions, when they expand into a foreign market for the first time.

### **Degree of Ownership**

Even though we are comparing partial acquisitions against partial start-ups, there are still different degrees of ownership involved, such as majority, equal, or minority ownerships. In controlling for the ownership effects, Barkema and Vermeulen (1998) found that acquisitions were more likely to be of majority-ownership, while start-ups were more likely to be of equal-ownership. However, there has been limited literature upon which we could theorize the impact of ownership levels on the choice of start-ups or acquisitions. Nonetheless, as mentioned earlier, considerations for mode of expansion are often intertwined with considerations for ownership levels. In this study, we need to control for the potential impact of ownership on expansion modes.

## **METHOD**

### ***Sample***

The sample for this study came from the database called the Worldwide Mergers & Acquisitions, and Alliances, produced by Securities Data Company. This database has been used in finance (e.g., Graham et al., 2002). It contains details of more than 1.8 million mergers and acquisitions and 75,000 partial-ownership start-ups worldwide. We selected those cases that took place

in the People's Republic of China, and we found 2,617 partial-ownership acquisitions and 5,148 partial-ownership start-ups from 1985 to December 2001.

The initial sample was refined in order to test the entry strategies of foreign firms in China. We eliminated cases of full acquisitions (not many cases of full foreign acquisitions existed in China), cases involving only domestic firms or foreign firms, and cases of missing values. Given that we were testing the effect of knowledge accumulation, we further removed those foreign firms that had no previous international diversifications. The size of the sample was reduced to 523 partial-ownership acquisitions and 3,029 partial-ownership start-ups.

Acquisitions in China came much later than foreign start-ups due to government restrictions. In other words, there was a time when foreign firms could only consider start-ups, which could create a bias in our estimation. We therefore need to examine partial diversifications after a foreign acquisition has occurred in the specific product sector in China. We first identified when the first acquisition took place in each of the 4-digit SIC industries in our sample. We then eliminated all partial-ownership start-ups before that time. This led to a reduction of our sample size to 2,152, of which 523 were partial-ownership acquisitions, and 1,629 were partial-ownership start-ups. This is our sample of analysis, even though we also compared it with the sample of 3,552 cases at times.

### ***Sample Characteristics***

Summary statistics are reported in Appendix II. Among the 2,152 foreign entries (1,629 start-ups and 523 acquisitions), there are 479 (22.3%) entries from the U.S., 459 (21.3%) from Japan, 462 (21.5%) from Europe, 509 (23.6%) from Hong Kong, Macau, Taiwan and Singapore, and 243 (11.3%) from other countries.

In terms of firms' propensity to use start-ups as opposed to acquisitions, the top three home countries are Japan, German, and South Korea. The top three home countries with more acquisitions

than start-ups are Hong Kong, Singapore and United Kingdom. We also provide a breakdown of the 2,152 entries by year of entry. The peak of foreign entries in the full sample is after 1994. The distribution of entries by primary SIC categories shows that foreign firms participated in 53 out of 82 two-digit SIC industries in China, and 62.6% of the entries were in manufacturing, followed by 10.7% in Services, 10.3% in Transportation, Communications, Electric, Gas, and Sanitary Services, and 8.2% in Finance, Insurance, and Real Estate. Compared with past studies that focused primarily on manufacturing industries, our sample is more comprehensive, and more representative of foreign firms in China.

### ***Dependent Variable***

The dependent variable is the mode of diversification. This is a dummy variable, which takes a value of 1 if the foreign firm made a partial-ownership acquisition of a domestic Chinese firm, and 0 if the foreign firm invested in a partial-ownership start-up.

### ***Independent Variables***

*Diversification Relatedness.* We estimated the diversification relatedness between the foreign and Chinese firms by devising a ratio that reflects the degree of commonality in the product sectors pursued by both firms. The numerator is the number of SIC codes shared by the Chinese firm and the foreign firm. The denominator is the combined number of SIC codes from both foreign and Chinese firms. To test the robustness of the measurement, we estimated two other denominators, namely the number of SIC codes of the foreign firm and the number of SIC codes of the Chinese firm. We also made estimates using both 3-digit and 4-digit SIC codes.

*Competitive Rivalry.* We estimated the number of acquisitions of all foreign firms in the year prior to the particular diversification in each 4-digit SIC product sector in China. We took the logarithm for the measure.

*Task-Specific Knowledge (Acquisitions).* We estimated the proportion of prior acquisitions in the overall international diversification of multinational firms. Specifically, we used a ratio with the cumulative number of acquisitions as the numerator, and the combined number of acquisitions and start-ups as the denominator. We believe this ratio effectively captures the specialization of firms with respect to acquisitions, and the importance of acquisitions in the prior overseas diversifications of the firm. It is a stronger measure than the zero-one dummy variable in Chang and Rosenzweig (2001). Furthermore, this measure was estimated on the worldwide basis for the multinational firms. In our sample, the mean of this ratio was 0.35, the standard deviation was 0.33, and the range was 0 to 1.

*Location-Specific Knowledge (First Entry).* With respect to location-specific knowledge, we used a categorical dummy variable, which takes the value of 1 if the entry was the first entry of the firm in China, and 0 if it was a subsequent entry. We believe that multinational firms have little knowledge about China's market environment when they first enter the country. They develop the location-specific knowledge over time.

### ***Control Variables***

*Degree of Ownership.* We incorporated the percentage of ownership that multinational firm owned in the partial-ownership acquisitions or start-ups in the analysis as a control variable.

*Management Orientations.* The work of Hofstede (1994) on management orientations plays an important role and is used extensively in previous research. In our analysis, we control for the Uncertainty Avoidance and Power Distance.

We also controlled for the country of origin effect by using four dummies for Japan, Hong Kong, Macau, Taiwan, and Singapore, and all other countries, with the United States of origin as the basis for comparison. We controlled for the level of profitability in each product sector, which was

estimated based on the return on sales for 2-digit SIC industries in China. Further, we controlled for timing of entry by incorporating the year in which the diversification took place.

### *Analysis*

We used binomial logistic regressions in which the coefficients estimated the impact of the independent variables on the probability that the entry would be through acquisition, with a positive sign for the coefficient meaning that the variable increased that probability.

## **FINDINGS**

Before we ran the multivariate analysis, we checked the pair-wise correlations of variables under study. The level of correlation among independent variables was low (Table 1).

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Insert Tables 1 and 2 about here  
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Results of multivariate regression are reported in Table 2. The results show that all hypothesized effects are significant and in the direction hypothesized. The regression model appears to explain well the differences between acquisitions and start-ups, correctly classifying 78.3% of the cases, and explaining 14% of variance. Interestingly, the sample without deleting those cases prior to the first foreign acquisition also shows consistent results, yielding some support for the robustness of our theorization.

Specifically, with regard to *Diversification Relatedness*, we found that foreign firms were more likely to acquire Chinese firms that shared a high level of product relatedness ( $p < 0.01$ ). Hypothesis 1 is supported. This finding supports our expectation that when firms pursue partial acquisition strategies, they are likely to target those firms in closely related product sectors. We also ran several analyses to test the robustness of the result (Table 3). It is important that product relatedness took place not only at the broad level of 3-digit SIC codes, but can also be traced at the level of 4-digit SIC codes.

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Insert Table 3 about here  
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With regard to *Competitive Rivalry*, we found that the greater the number of acquisitions by all foreign firms in China in the particular product sector in the previous year, the more likely firms were to choose acquisition in entering China ( $p < 0.01$ ). Hypothesis 2 is supported. This finding shows that firms are pressured by the competitive behavior of other firms when they choose diversification modes.

We found that firms' *Task-Specific Knowledge (Acquisitions)* has a positive effect on the likelihood of pursuing another acquisition in a foreign country ( $p < 0.01$ ). Hypothesis 3 is supported. The results indicate that the more accumulated prior knowledge a firm has, the more likely the firm will leverage upon that knowledge in its market expansion. This finding is consistent with the existing literature, which states that firms resort to their task-specific knowledge in expanding overseas (Westney, 1988). Firms leverage their knowledge on how to acquire a local firm, and how to carry out post-acquisition integration. This specific knowledge plays an important role in firms' decisions about overseas market diversification. Finally, it was suggested that learning through prior experiences might be non-linear, i.e., when learning reaches a certain level, the benefit of learning declines (Hayward, 2002). In our testing, we did not find such a pattern. It is possible that in the case of market expansion, the impact of cumulative knowledge on the mode of diversification is linear and positive.

We hypothesized that firms are less likely to resort to acquisitions on their first attempt in a foreign country, because of the lack of location-specific knowledge about that country. Our findings show that *Location-Specific Knowledge (First Entry)* was negatively associated with the likelihood of choosing acquisitions ( $p < 0.01$ ). In other words, foreign firms were significantly less likely to choose acquisitions for their first partial diversification project in China, due to their lack of knowledge about the host country. Hence, hypothesis 4 is supported. As firms gain more knowledge about the host

country, they will have a better understanding of how to acquire local firms and how to carry out post-acquisition integration, as pointed out by Chang and Rosenzweig (2001).

With regard to the control for ownership, we found that multinational firms were more likely to own a majority stake in acquisitions, and own an equal stake in start-ups, which are consistent with the findings in Barkema and Vermeulen (1998). Interestingly, we also found that multinational firms were also more likely to own a minority stake in acquisitions, an effect that was not significant in the study by Barkema and Vermeulen (1998). Speculating on a curve-linear impact, we tried analyzing the quadratic term of ownership. As shown in Table 4, both were significant, indicating that multinational firms either take a minority stake or a majority stake in acquisitions, but they are more likely to take an equal ownership in start-ups.

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Insert Table 4 about here  
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The popularity of majority or minority acquisitions suggests that firms either want the control or do not. When the acquiring firm intends to bring about sweeping changes in the acquired firm, majority ownership is often desirable. When the acquiring firm does not intend to bring forth dramatic changes to the acquired firm, the acquiring firm can take a minority ownership. From the perspective of market-seeking strategies, multinational firms may not need to change the local firm if the intentions are to utilize its local market capabilities.

## **DISCUSSION**

There are three noteworthy points. The first is that it provides some insights into partial-ownership diversifications in international context. Drawing upon the literature on product relatedness, and given the context under study, we theorized that multinational firms would prefer to acquire domestic firms that share a high level of product relatedness. Our results support such a hypothesis.

Previous researches provide ambiguous findings. Hennart and Reddy (1997) found that Japanese firms preferred joint ventures when the Japanese and American partners shared one common product, while Balakrishnan and Koza (1991) found that joint ventures were chosen when parent firms were in different industries. We believe our measure of product relatedness is a more precise one than previously suggested. Importantly, this finding was robust not only at 3-digit SIC level, but also at 4-digit level, suggesting the firms were seeking a closer match in product relatedness than previously thought.

Furthermore, we theorized that firms' prior acquisition knowledge would have an immediate impact on the likelihood of new acquisitions. Our results support that firms with a strong expertise in acquisitions relative to start-ups are more likely to engage in future acquisitions. While consistent with existing studies, our study shows such an effect, based on the cumulative prior acquisitions and start-ups of the firm on the worldwide basis. Because of this, we are able to provide the magnitude of the impact, beyond the directional effect that was suggested in Chang and Rosenzweig (2001). We also found that location-specific knowledge played a significant role. Firms were more likely to avoid acquisitions when they lack the knowledge and experience in the host country. In short, our study offers new insight that could be useful in understanding the inconsistency in previous empirical findings.

Second, we focused only on partial acquisitions and partial start-ups. By focusing on partial-ownership acquisitions and start-ups, we were able to incorporate the information about the host-country partner firm, which information would be missing in the case of full-ownership start-ups. For instance, we examined the local firm's product portfolio in the measurement of diversification relatedness between the two firms involved. It should be noted that Hennart and Reddy (1997) also examined whether the Japanese investors and the target U.S. firms produced at least one product in

common. However, the use of a zero-one dummy variable limited the potential of uncovering the relationship between the two firms.

Finally, we compiled a sizeable sample, containing 2,152 diversifications by multinational firms in China from 23 countries in 257 4-digit product sectors over a time span of 17 years. We were careful to rule out possible biases. For instance, we removed cases of start-ups prior to the first case of foreign acquisition in each product sector, even though it was possible that those firms going into start-ups had the option of choosing acquisitions. We were also careful to test the product relatedness on 3-digit and 4-digit SIC level, thus yielding more useful results. We also made improvement in measurement, such as product relatedness and types of knowledge.

There are limitations to this study. First, the archival data that we used lacked the richness needed to uncover the core capabilities that multinational firms wanted to transfer to their operations in China, how such transfers took place, and the effectiveness of the transfer. We can only infer from the archival data the factors that influenced their choice of diversification modes. Second, since our study was one of the first studies on acquisitions in emerging countries such as China, we lacked the support of the literature on issues such as the strategic intents of multinational firms in those markets. As a result, parts of our conceptualization and discussions are explorative and speculative. There are many issues that remain to be studied regarding foreign acquisitions in China, such as the location distribution factor, type of local target firms, and so on. More research will yield a better understanding of the acquisitions that are occurring in China, and other developing countries. Finally, we would have liked to be able to make the ultimate linkage between strategy and performance, but due to the inadequacies of the archival data, we could not project, for instance, the impact of product relatedness on the performance of these partial-ownership acquisitions or start-ups in China. Future work will certainly push in this direction.

**Table 1**  
**Means, Standard Deviations, and Correlation Matrix**

Variables	Mean	S.D.	(2)	(3)	(4)	(5)
(1) Diversification Mode	.24	.42	.08***	.22***	.20***	-.08***
(2) Diversification Relatedness (4-digit SIC both firms)	.14	.27		.10***	.02	.10***
(3) Competitive Rivalry Previous Year's Acquisitions	.52	.78			-.05***	-.01
(4) Task-Specific Knowledge (Acquisitions)	.35	.33				-.03
(5) Location-Specific Knowledge (First Entry)	.44	.49				

Note: Diversification Mode is 1 for Acquisitions, and 0 for Start-ups.  
N is 2,152. \*\*\*p<0.01; \*\*p<0.05. \*p<0.1

**Table 2**  
**Acquisitions versus Start-ups: Hypothesized Effects**

Independent Variables	Final Sample	Sample of 3552 Cases
Intercept	-1.46*** (120.8)	-2.26*** (129.3)
Diversification Relatedness (4-digit SIC both firms)	0.62*** (6.8)	4.41*** (94.8)
Competitive Rivalry Previous Year's Acquisitions	0.64*** (64.6)	0.79*** (86.1)
Task-Specific Knowledge (Acquisitions)	1.16*** (32.2)	2.81*** (159.8)
Location-Specific Knowledge (First Entry)	-0.54*** (15.1)	-0.72*** (22.6)
R square	0.14	0.19
Model: -2 Log L	2286.7	2968.7
Concordant	78.3%	81.8%
Tau-a	0.18	0.19
N	2152	3552

Note: Acquisitions vs. Start-ups (Acquisition = 1, Start-up =0).  
Sample of 3552 cases is the one that has not removed cases before the first partial acquisition took place.  
The numbers in the parentheses are Chi-Square statistics. \*\*\*p<0.01; \*\*p<0.05. \*p<0.1

**Table 3**  
**Acquisitions versus Start-ups:**  
**Level of Diversification Relatedness**

Independent Variables	Column 1	Column 2	Column 3	Column 4	Column 5
Intercept	-1.44*** (117.1)	-1.57*** (125.1)	-1.52*** (125.6)	-1.42*** (112.7)	-1.57*** (119.1)
<b><i>Diversification Relatedness</i></b>					
4-digit SIC foreign firms	0.33* (2.79)				
4-digit SIC Chinese firms		0.58*** (14.0)			
3-digit SIC both firms			0.86*** (14.1)		
3-digit SIC foreign firms				0.18** (4.1)	
3-digit SIC Chinese firms					0.45*** (9.4)
Competitive Rivalry					
Previous Year's Acquisitions	0.65*** (66.5)	0.65*** (66.1)	0.63*** (61.8)	0.66*** (67.9)	0.65*** (67.8)
Task-Specific Knowledge (Acquisitions)	1.15*** (31.6)	1.18*** (32.5)	1.18*** (32.8)	1.15*** (31.4)	1.17*** (32.4)
Location-Specific Knowledge (First Entry)	-0.52*** (14.3)	-0.49*** (12.8)	-0.55*** (15.6)	-0.51*** (13.7)	-0.49*** (12.6)
R square	0.14	0.15	0.14	0.13	0.14
Model: -2 Log L	2286.7	2286.7	2286.7	2286.7	2286.7
Concordant	78.2%	78.7%	78.9%	78.0%	78.6%
Tau-a	0.16	0.19	0.19	0.18	0.19
N	2152	2152	2152	2152	2152

Note: Acquisitions vs. Start-ups (Acquisition = 1, Start-up = 0).  
The numbers in the parentheses are Chi-Square statistics. \*\*\*p<0.01; \*\*p<0.05. \*p<0.1

**Table 4**  
**Acquisitions versus Start-ups: Incorporating Ownership Effect**

Independent Variables	Final Sample	Final Sample, With control variables
Intercept	2.21*** (45.1)	20.60*** (10.2)
Diversification Relatedness (4-digit SIC both firms)	0.76*** (8.4)	1.09*** (15.3)
Competitive Rivalry Previous Year's Acquisitions	0.49*** (29.3)	0.38*** (15.1)
Task-Specific Knowledge (Acquisitions)	1.34*** (33.4)	1.30*** (26.7)
Location-Specific Knowledge (First Entry)	-0.45*** (8.5)	-0.61*** (13.4)
Degree of Ownership	-0.19*** (146.1)	-0.20*** (143.3)
Degree of Ownership (Squared)	0.002*** (120.8)	0.002*** (119.4)
<b>Control Variables</b>		
Uncertainty Avoidance		-0.01 (2.3)
Power Distance		0.01 (2.4)
Time of Entry in calendar year		0.10*** (10.4)
Profit Margin		-2.96*** (11.9)
Country Dummies		
United States		-----
Japan		-0.65* (3.4)
Hong Kong, Macau, Taiwan and Singapore		0.52 (2.4)
Other Countries		0.07 (0.1)
R square	0.25	0.31
Model: -2 Log L	1440.9	1295.8
Concordant	79.8%	83.8%
Tau-a	0.26	0.29
N	1148	1138

Note: Acquisitions vs. Start-ups (Acquisition = 1, Start-up = 0).  
The numbers in the parentheses are Chi-Square statistics. \*\*\*p<0.01; \*\*p<0.05. \*p<0.1

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## Appendix I: Key Empirical Studies on Choices of Entry Modes

Studies	Sample and Entry Modes	Key Empirical Findings
Kogut and Singh (1988)	Sample: 228 entries into the United States market Entry modes: acquisition, wholly owned greenfield, and joint venture	(1) Cultural distance and national attitudes towards uncertainty avoidance influence the choice of entry modes.
Zejan (1990)	Sample: 77 Swedish parent companies and 250 majority-owned foreign affiliates Entry modes: acquisition, greenfield investment	(1) The degree of industrial diversification of the parent company and the host country's per capita income has a positive influence on the propensity for acquisition. (2) The rate of growth of industrial production has a negative influence on the propensity for acquisition.
Hennart and Park (1993)	Sample: 270 Japanese entries into the United States Entry modes: acquisition, greenfield investment	(1) Acquisitions are used by Japanese investors with weak competitive advantages. (2) Acquisitions are chosen when entry is at a scale that is large relative to the parent, and when entry is into a different industry.
Pennings, Barkema and Douma (1994)	Sample: 462 diversification projects by 14 non-financial firms in the Netherlands Entry modes: acquisition, new venture	(1) Expansions were more persistent when related to a firm's core skills, fully owned, and the result of acquisition rather than internal development (2) Expansions were likely to last longer if a firm's prior diversification activity level was high
Hennart and Reddy (1997)	Sample: 175 Japanese entries into the United States Entry modes: acquisition, greenfield equity joint venture	(1) Equity joint ventures are preferred when desired assets are linked to non-desired assets, when Japanese investors have less previous experience and have the same product with U.S. partners.
Barkema and Vermeulen (1998)	Sample: 595 acquisitions and 234 start-ups by 25 large Dutch firms Entry modes: acquisition, start-up	(1) Multinational diversity leads to foreign start-ups rather than acquisitions. (2) Product diversity has a curvilinear effect on the tendency to use start-ups. The curvilinear effect becomes weaker at higher levels of multinational diversity.
Brouthers and Brouthers (2000)	Sample: 136 wholly owned Japanese subsidiaries in European countries Entry modes: acquisition, greenfield investment	(1) Some country influence may act as a moderating variable in diversification mode choice. (2) Organizations with strong intangible capabilities prefer to leverage their capabilities through greenfield start-ups.
Chang and Rosenzweig (2001)	Sample: 950 entries to the United States from 1975 to 1992 Entry modes: Greenfield, acquisition, Joint Venture	(1) Companies learn from early entries and adapt the modes of subsequent ones.
Gaba, Pan and Ungson (2002)	Sample: Entries of U.S. Fortune 500 firms into China during the period of 1979-1996 Entry modes: Timing of entry	(1) Larger firms with greater level of internalization and scope economies enter earlier. (2) Non-equity modes, competitors' behavior in the product market, and lower levels of country risk are associated with early entry.
Harzing (2002)	Sample: 97 acquisitions and 190 greenfields by 104 headquarters Entry modes: acquisition, greenfield investment	(1) Acquisitions are preferred by multidomestic companies, while greenfields are preferred by global companies.

## Appendix II: Summary Statistics of Foreign Entries (N=2152)

### A. Distribution of Entries: By Country of Entry (sorted by percentage of M&As)

Country	Number of M&As	Percentage of M&As	Number of JVs	Percentage of JVs	Number of Entries	Percentage of Entries
Japan	48	10.46	411	89.54	459	21.33
Germany	16	12.21	115	87.79	131	6.09
South Korea	11	13.41	71	86.59	82	3.81
Canada	11	18.64	48	81.36	59	2.74
France	18	19.78	73	80.22	91	4.23
Taiwan	6	21.43	22	78.57	28	1.30
Netherlands	11	22.45	38	77.55	49	2.28
United States	109	22.76	370	77.24	479	22.26
Others	34	25.95	97	74.05	131	6.09
United Kingdom	24	26.37	67	73.63	91	4.23
Malaysia	8	26.67	22	73.33	30	1.39
Australia	15	36.59	26	63.41	41	1.91
Singapore	51	36.69	88	63.31	139	6.46
Hong Kong	161	47.08	181	52.92	342	15.89
<b>Total</b>	<b>523</b>	<b>24.30</b>	<b>1629</b>	<b>75.70</b>	<b>2152</b>	<b>100.00</b>

### B. Distribution of Entries: By Year of Entry

Year of Entry	Number of M&As	Percentage of M&As	Number of JVs	Percentage of JVs	Number of Entries	Percentage of Entries
1985-1990	3	60.00	2	40.00	5	0.23
1991	8	36.36	14	63.64	22	1.02
1992	4	9.52	38	90.48	42	1.95
1993	23	16.43	117	83.57	140	6.51
1994	32	10.67	268	89.33	300	13.94
1995	44	17.05	214	82.95	258	11.99
1996	48	23.53	156	76.47	204	9.48
1997	47	25.54	137	74.46	184	8.55
1998	54	20.77	206	79.23	260	12.08
1999	64	32.32	134	67.68	198	9.20
2000	108	43.37	141	56.63	249	11.57
2001	88	30.34	202	69.66	290	13.48
<b>Total</b>	<b>523</b>	<b>24.30</b>	<b>1629</b>	<b>75.70</b>	<b>2152</b>	<b>100.00</b>

### C. Distribution of Entries: By Primary SIC Code

SIC Code	Division	Number of Entries	Percentage of Entries
01-09	Agriculture, Forestry, and Fishing	1	0.05
10-14	Mining	38	1.77
15-17	Construction	28	1.30
20-39	Manufacturing	1364	62.55
40-49	Transportation, Communications, Electric, Gas, and Sanitary Services	222	10.32
50-51	Wholesale Trade	47	2.18
52-59	Retail Trade	34	1.53
60-67	Finance, Insurance, and Real Estate	176	8.18
70-88	Services	230	10.69
91-99	Others	12	0.56
	<b>Total</b>	<b>2152</b>	<b>100.00</b>