

FDI SCALE AND PERFORMANCE OF TAIWANESE FAMILY FIRMS IN CHINA: A RESOURCE BASED PERSPECTIVE

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Abstract

In the present study we have used data from 276 family-owned Taiwanese manufacturing firms that invest in China in order to examine the effect of firm resources in Taiwanese firms on FDI performance in China. Hypotheses were developed and it was found that firm-specific advantages like firm size, R&D intensity, international experience, and managerial capabilities had a positive influence on both the degree of a firm's FDI involvement and its performance in Mainland China with previous business experience being found to be the most important in influencing family business people to invest in China (and on their performance in China). Implications for future research are discussed.

Introduction

With nearly one-quarter of the world's population and one of the fastest rates of economic growth, China has become an attractive target for business expansion by many foreign businesses (Hsiao & Hsiao, 2004). The record \$143 billion inflows in Asia in 2000—a 44 percent increase over 1999—was due primarily to an unprecedented FDI boom in Hong Kong and China. FDI flows to China of \$41 billion remained fairly stable (Hatemi & Roca, 2004; UNCTAD, 2001). During this time, there has also been significant conceptual and empirical progress in literature pertaining to the causes and outcomes of foreign direct investment (FDI). However, the determinants of FDI scale and its relationship to firm performance remains largely unclear, especially in China and other emerging countries (Chuang & Hsu, 2004; Deng, 2001; Gaba, Pan & Ungson, 2002; Weldon & Vanhonacker, 1999).

There is evidence to suggest that a firm's level of FDI is a function of its ability to amass and develop strategically relevant resources (Child & Tse, 2001). The role of resources is encapsulated in the resource-based view of the firm (RBV) asserts that the differences in a firm's ability to accumulate and deploy unique resources drive to sustained competitive advantage and superior firm performance (Amit & Schoemaker, 1993; Barney, 1991; Dierickx & Cool, 1989; Mahoney & Pandian, 1992; Wernerfelt, 1984; Yang, Lee, Lin, & Chung, 2004).

The present study examines the effect of firm resources in Taiwanese firms on FDI performance in China. The remainder of the paper begins with an overview of the resource-based perspective and recent developments concerning Taiwanese FDI in China. Hypotheses are developed and the results of an empirical analysis presented. Findings, conclusions, and implications for future research are elaborated.

Evolution of the Resource-Based Perspective

Within the industrial organization framework, firm profitability is viewed as a function of industry structure. Early strategy researchers challenged the I/O perspective, noting its inability to explain large performance variances within a single industry (Rugman, 2002). As a result, the strategic group level of analysis was proposed as a compromise between the deterministic, industry level of analysis proposed and developed by industrial organizational economics and the firm or business level of analysis studied by strategic management researchers (Barney, 1986c; Porter, 1981; Seth & Thomas, 1994).

Dissatisfaction with the I/O overtones inherent in strategic group analysis may have been the primary impetus for a renewed interest in firm resources, not strategic group membership, as the foundation for firm strategy (Barney, 1991; Collis, 1991; Conner, 1991). The resulting paradigm, resource-based theory, emphasized unique firm competencies and resources in strategy formulation, implementation, and performance. Resource-based proponents have studied such firm-level issues as transaction costs (Camerer & Vepsalainen, 1988), economies of scope, and organizational culture (Barney, 1986a, 1991; Fiol, 1991). Key business-level issues include the analysis of competitive imitation (Rumelt, 1984), informational asymmetries (Barney, 1986b), causal ambiguities (Reed & DeFillippi, 1990), and the process of resource accumulation (Dierickx & Cool, 1989).

Resource-based theory challenges the industrial organization notion of valuable resource control (Das, 2000; Ramsay, 2001). I/O theorists contend that information is perfect in the long run, and that any short-run heterogeneity among businesses within an industry will be eliminated as competitors purchase valuable resources at the strategic factor markets (Barney, 1986b; Rugman, 2002). Recognizing that all firms have common access to a common body of resources, the I/O approach does not become mired in an attempt to measure intangible resources believed to be transitory.

In contrast, the resource-based perspective recognizes that businesses within an industry or strategic group may control heterogeneous resources, and that heterogeneity may be sustained over time. Both industry structure and firm control over resources are dynamic. As such, resource-based theorists do not see the expectational and information asymmetry (i.e., perfect strategic factor markets) that must exist in the traditional (I/O) paradigm as realistic (Barney, 1986b). They contend that firm resources include all assets, capabilities, organizational processes, firm attributes, information, and knowledge controlled by a firm--many of which may be intangible and/or difficult to measure--that enable it to conceive of and implement successful strategies (Gibbert, 2002; Hall, 2000; Huilin & Yeh, 2004; Smith, 2002).

A firm's resources may include physical capital resources (technology, plant, equipment, geographic location, access to raw materials), human capital resources (training, experience, judgment, intelligence, relationships, insights, and overall quality of managers and employees), and organizational capital resources (planning, controlling, and organizing systems). To the resource-based theorist, ignoring firm-specific resources believed to be transitory so that researchers can incorporate a static approach to investigating firm profitability substantially reduces the precision of the analysis and is therefore unjustified. However, accepting the

transitory nature of resources that lead to competitive advantage further complicates the research process for the resource-based theorist (Dess, Gupta, Hennart, & Hill, 1995; Feurer & Chaharbaghi, 1994; Robins & Wiersema, 1995).

The nature of competitive advantage began to take renewed prominence within the new perspective. From the resource-based perspective, competitive advantage occurs when a firm is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors (Peteraf, 1993). Sustained competitive advantage exists when competitors are unable to duplicate the benefits of the strategy (Barney, 1991; Ricart, Enright, Ghemawat, Hart, & Khanna, 2004).

According to the resource-based perspective, firm's resources include the assets, capabilities, organizational processes, firm attributes, and knowledge that enable it to conceive of and implement strategies that improve its efficiency and effectiveness (Barney, 1991). Specifically, firms with resources that are valuable, difficult to imitate, rare, and cannot be easily substituted will enjoy a sustainable competitive advantages. Moreover, since these resources are heterogeneous across firms, different firms have control over different set of resources and capabilities (Barney, 1991; Rumelt, 1984), resulting in different levels of firm performance.

Previous research has classified resources into different categories. Some offered an extremely simply categorization of resources, such as either tangible or the intangible type (Penrose, 1959), and either property-based or knowledge-based resources (Miller & Shamsie, 1996). Barney (1991) classifies resources into physical, human, and organizational capital resources, while others add technological and financial resource into the categorization (Coates, 2002; Mahoney & Pandian, 1992). Hall (1992, 1993) performed empirical studies to determine the relative importance of intangible resources on business success.

Recent research highlights the importance of relationship-based resources on relational assets or social capital (Chen & Chen, 1998; Dyer & Singh, 1998; Nahapiet & Ghoshal, 1998), such as the relation based in a firm's network of relationships with other organizations including firms, governments, and joint venture partners (Choi & Beamish, 2004; Doh, Teegen, & Mudambi, 2004). Dyer and Singh noted that a firm's key resources may span firm boundaries and may be embedded in inter-firm resources and routines." In other words, the relationships that a firm develops and maintains with others are a significant source of competitive advantage. Chen and Chen (1998) indicate that key resources for Taiwanese firms diversifying internationally are strategic network linkages developed with other domestic and foreign firms.

In a multinational firm, resources with performance implications include product diversification, processes and markets as well as firm specific knowledge. These factors, like managerial, technological, and reputation are prominent not only in exploiting superior economic rents, but also in erecting entry barriers for potential competitors in the international arena. Collis (1991) applied the resource-based study in providing a better understanding of global competition and found that performance was related to the internal assets acquired through the operation of complex social phenomena, and that well developed core competencies allowed firms to enter less attractive markets. In a similar vein, Brush and Chaganti (1998) showed that human and

organizational resources are more strongly associated with certain performance outcomes than strategy in small service and retail firms.

Taiwanese FDI in China

The level of FDI has been increasing rapidly in a number of countries, while the United States continues to be the single largest host country. Global flows of FDI reached \$1.3 trillion in 2000, \$143 billion of which was in developing Asian countries. The world's top 30 host countries account for around 95% of total world FDI inflows and the top 30 home countries account for around 99% of outward FDI flows (UNCTAD, 2001). Between 2000 and 2001, however, FDI inflows declined worldwide by 51% to \$735 billion, with the greatest decline in emerging economies (UNCTAD, 2002). FDI grew in a majority of countries in the developing world (77 out of 146) and in most of Central and Eastern Europe (13 out of 19).

The FDI paradigm posits that a firm is likely to engage in FDI when it possesses resources that can be effectively employed within a particular host country. Although support for this premise is generally found in developed nations, its application to emerging economies remains unclear. Most published literature supports the notion that international firms tend to focus their investment in neighboring countries at earlier stages of development, due to the lack of international experience and location advantages (Gaba, Pan & Ungson, 2002; Lin & Png, 2003; Xie, 2002).

Taiwan's FDI developed noticeably in the late 1980s, both to defend and expand markets abroad. The Taiwanese economy is still dominated by small and medium sized family firms characterized by heavy dependence on contracting relations, many of which invested in China seek to lower production costs and large firms later invested more in China because of market expansion strategies. More recently, large Taiwanese companies have invested in China with larger investments and higher technologies (Lin, 1995; McLenahan, 2002).

The average size of Taiwanese investment in Mainland China has been much smaller than that in Southeast Asia and the United States, ostensibly due to political uncertainty and restrictions in the size of individual investment projects (Chiu, 1995; Xie, 2002; Zhaoyong, Xu, & Zhang, 2003). Today, compared with Taiwanese investments in other parts of the world, Taiwanese total investment in Mainland China is large. Investments are widely disbursed across industries, but geographically concentrated in a few coastal areas.

Taiwanese investors' ethnic networks and cultural bonds serve as a key advantage when compared to investors in Japan and the West (Chang, 2002). Although their economic systems have differed over the past five decades, the Mainland Chinese and Taiwanese share common culture, values, and language, as well as strong family and village ties (Lau, Tse & Zhou, 2002; Rauch, 1999). Taiwanese cultural and linguistic affinities with the mainland facilitate contacts, and help them find appropriate low-profile investment opportunities in local industries in the mainland. The success of Taiwanese food, beverage, and restaurant investments in China suggest ethnic and cultural advantages for Taiwanese firms in China (Rauch & Trindale, 1999). As a result, China has become a favorite relocation destination for Taiwanese investors not only

because of cost considerations, but also because of geographical, cultural, and language proximity (Child, 2001; Child & Tse, 2001; Deng, 2001; Gaba, Pan & Ungson, 2002).

In the past decade, in an attempt to lure increased investment from Taiwan as well as other large multinational companies from developed countries, China has improved substantially its investment environment and has invited allowed foreign investors to enter its financial and service sectors (Child & Tse, 2001; Deng, 2001; Prime, 2002). While China's market and its rapid economic growth rate are very attractive to multinational corporations, the present economic retrenchment and other constraints inherent in its legal framework create many uncertainties for foreign investors. Language and cultural barriers, as well as the omnipresent and burdensome Chinese bureaucracy, also present additional difficulties to foreign investors, especially those from the West (Lau, Tse, & Zhou, 2002; Weldon & Vanhonacker, 1999).

Due to the lack of diplomatic ties to protect its economic interests because of the tension in the Taiwan Straits, SMEs from Taiwan generally must possess some degree of ownership advantages to overcome their unfamiliarity with the Mainland China market. Most Taiwanese direct investments in China have been labor-intensive consumer-goods industries including textiles, garment, footwear, plastic household products, electronics, and electrical appliances, which are also Taiwan's major exports. In the early stages, textiles and footwear companies moved from Taiwan to China because of the rising labor and land costs in Taiwan, followed by the petrochemical and steel industries and eventually high technology industries such as consumer electronics and computers (Deng, 2001; Gaba, Pan & Ungson, 2002; McClenahan, 2002).

Recently, Taiwanese investments in China have become more diversified (Deng, 2001; McClenahan, 2002). China has become a manufacturing base for both finished and semi-finished Taiwanese goods. Some firms have moved into high-tech manufacturing industries such as electronics and electronic appliances. The complementary economic structures in Taiwan and China have increased both trade and investment flows between these two countries. Chinese firms have exchanged natural resources and raw materials for Taiwan's processed intermediate inputs, while Taiwan's factor endowments in technology and capital have complemented China's labor advantages.

Hypotheses

Foreign firms need superior assets and/or skills to successfully compete with indigenous firms so as to generate sufficient economic rents to cover the high cost of servicing the new national markets. A firm's asset power is reflected by its size, international experience, and skills by its ability to develop differentiated products (Agarwal & Ramaswami, 1992). This study hypothesizes that the manufacturing firms from Taiwan must possess some degree of firm specific advantages to overcome the unfamiliarity of Mainland China market and the special investment situation without diplomatic ties to protect its economic interests because of the tension in the Taiwan Straits. On the other hand, firm specific resources and skills should stronger competitive advantages, which in turn affect firm performance. Several specific resources are examined.

Firm size

Larger firms may have specialized managerial resources, utilize economies of scale, have the ability to collect market intelligence easier and determine profitable opportunities more quickly, have a greater ability to expand resources overseas, bear the costs and risks associated with international operation (Buckley & Casson, 1976; Kumar, 1984), have greater bargaining power (Erramilli & Rao, 1993), and achieve a better performance (Cohen, 1996). Similarly, Lecraw (1984) proposed overall size (as measured by total assets) is a source of bargaining power for MNCs because larger MNCs would be more likely to have the managerial and financial resources to invest and undertake long, time-consuming negotiations with host governments.

Extant research emphasized the importance of firm size in explaining overseas operations, confirming a positive relationship between the size and FDI in manufacturing industry (Buckley & Casson, 1976; Grubaugh, 1987; Yu & Ito, 1988; Kimura, 1989) or service industry (Li & Guisinger, 1992; Terpstra & Yu, 1988), while Blomstrom and Lipsey (1991) find no significant relationship between FDI propensities and parent firm size. Agarwal and Ramaswami (1992) noted that larger firms show a greater tendency to enter foreign markets, whereas Erramilli (1991) suggested that firm size may not have any significant independent impact on selection of foreign markets. In this study, firm size is expected to have positive influence on the FDI scale.

H₁: Firm size shall be positively related to an organization's FDI scale, cet par.

Firm size has long been found to be an important factor affecting firm survival and performance (Porter, 1980). Size and age may strongly impact an organization's resources and performance (Aldrich & Auster, 1986; Venkataraman & Low, 1994). Caves and Mehra (1986) and Kogut and Singh (1988) have demonstrated that size of FDI influences the entry mode and subsequent market performance of the venture. Within this perspective, firm size is expected to be positively related with firm performance.

H₂: Firm size shall be positively related to organizational performance, cet par.

Technological Skills

Intangible resources like technological skills (e.g., the ability to innovate) are an important source for sustainable competitive advantages (Prahalad & Hamel, 1990; Porter, 1990; Kogut & Zander, 1992). Firms with them are able to compete and adapt to changing market dynamics more effectively through development of new products and processes (Medcof, 2000, 2001). Past studies have found a positive influence of technological competence of firms on their ability to undertake FDI (Horst, 1972; Caves, 1974; Pugel, 1978; Caves & Mehra, 1986; Kim & Lyn, 1987; Grubaugh, 1987). Interestingly, Yu and Ito (1988) found that R&D intensity had no significant impact on FDI in the tire industry.

H₃: A firm's technological skills would be positively related to its FDI scale, cet par.

R&D intensity is a major contributor of product differentiation and firm competence, and thereby is positively related to firm performance (Barney, 1991; Schmalensee, 1985). A firm's

innovation can lower its manufacturing costs and improve product quality relative to competitors, thus, allows a firm to achieve efficiency in operations (Hitt, Hoskisson, & Ireland, 1994) and improve its performance (Kotabe, 1990).

Kogut and Singh (1988) demonstrated that ownership structure and subsequent performance of foreign-invested enterprises (FIEs) are influenced by the expected strategic importance of the foreign firm's R&D intensity. Several additional studies (e.g., Kotabe, 1990; Morrison & Roth, 1992; Zahra, 1996) also found a positive relationship between R&D intensity and firm performance. Collectively, a firm can enjoy superior financial performance when it expands into international markets since it can either charge premium prices for its innovative products or further lower production costs by applying its manufacturing processes and achieving economies of scale (Porter, 1986). Thus, it is expected that a firm possessing more technology resources, as reflected in R&D intensity, will exhibit higher performance.

H₄: Sustainable technological skills would be positively related to organizational performance, cet par.

International Experience

Costs associated with global activities constitute a major determinant of international expansion performance. Both the costs and the uncertainty of operating abroad, particularly specific knowledge about task and institutional environments, can be progressively reduced over time as accumulated learning takes effect in a host country (Buckley & Casson, 1981; Johanson & Vahlne, 1990, 1992; Benito & Gripsrud, 1992, 1995), and enhances the effectiveness and efficiency of local operations (Davidson, 1980; Johanson & Vahlne, 1990). Thus, international experience increases the likelihood of firms committing a large amount of resources to foreign markets (Johanson & Vahlne, 1977; Medcof, 2001). Through their international operations, firms gain important knowledge about customers, markets, cultures, and governments that facilitates future international expansion (Hitt et al., 1994; Hitt, Hoskisson, & Kim, 1997). The more experience a firm has in a region, the more it invests (Benito & Gripsrud, 1995; Carmelo-Ordaz, 2003; Yu, 1990).

Firms with greater international experience have had the time to develop more familiarity with host country markets and face fewer barriers in investing in foreign markets. Numerous studies have suggested that a firm's internationalization experiences play a vital role in decision of entry modes (e.g., Johanson & Vahlne, 1977; Caves & Mehra, 1986; Mathews, 2002; Terpstra & Yu, 1988). These studies argued that direct investment modes, as the last stage of a firm's internationalization stages, require accumulated knowledge and experiences in internationalization process and the local environment. More succinctly, international experience reduces a firm's liability of foreignness as one gains familiarity with the local environment, an argument consistent with earlier works by Hymer (1976).

Investors in China participate in a continuing process of intensive learning and interaction with the local market and business environments (Luo, 1997, 1998; Luo & Peng, 1999). A recent survey of foreign-invested enterprises (FIEs) in China demonstrated that time-based experience has a significant effect on overall dimensions of performance of FIEs (Luo, 1999). A long presence in China often results in higher credibility among customers, suppliers, competitors,

and governments (Child, 1994), an ability to reduce operational and financial risks (Nee, 1992), and a well-established marketing network, (Shenkar, 1990) and interpersonal connections (Luo & Chen, 1996). In general, firms tend to augment their scale of operations as their duration of experience accumulated in business areas or in geographic regions with which the firm is more familiar and have a better chance for superior firm performance.

H₅: Organizational experience in the international environment would be positively related to its FDI scale, cet par.

H₆: International experience of an organization would be positively related to its performance, cet par.

Managerial Capabilities

Ansoff and McDonnell (1990) defined general management capability as the ability to engage in behavior that will optimize attainment of the firm's near and long-term objectives. Firms may miss business opportunities due to their insufficient levels of managerial capabilities and experience. Managers charged with internationalizing should have managerial experience, be tolerant of ambiguity, capable of identifying key success factors in an unfamiliar opportunity, prepared and flexible in response to changing foreign circumstances, and willing to take calculated risks. Finally, managers should be experienced and skilled in dealing with cultural, social, and political factors that affect profit making in foreign countries (Gates, 1999). Firms with managerial capabilities are likely to better exploit transnational market opportunities. It has been argued that management experience can provide the cost advantages and strategic strengths that stimulate FDI (Davidson, 1980; Wright 2001). In this sense, a firm, which has managerial capabilities, is willing to mobilize firm resources to initiate or expand the firm's involvement in foreign markets (Chang, 2002; Das, 2000).

Managerial capabilities are essential for building organizational competence. Because they are often hard to imitate or transfer due to scarcity, specialization, and tacit knowledge embedded within the firm, they bestow considerable competitive advantages on a firm (Amit & Schoemaker, 1993). It becomes critical for firms to recognize that success in multinational business requires a range of management capabilities that the exporting firms may not possess (Gates, 1999). Therefore, it can be expected that managerial skills and knowledge are key factors to successful foreign investment and performance.

H₇: A firm's managerial capabilities would be positively related to its FDI scale, cet par.

H₈: A firm's sustainable managerial capabilities would be positively related to its performance, cet par.

Methods

Taiwanese family-owned manufacturing firms that have known operations in China were drawn from the database of *Directory of Taiwanese Manufacturing Firms Investing in China*. Four directories in Guangdong, Fujian, Kiangsu and Shanghai Special Economic Zones (SEZs), which are the most popular destinations for Taiwanese firms investing in China, have been published

and used as the basis for regional sub-grouping of the sample. Firms with no physical presence in Taiwan were eliminated.

In an initial pilot study, surveys were mailed to the president or general manager of twenty firms with known operations in China. The survey instrument was translated into Chinese and translated back to English to ensure accuracy of translation. These surveys were accompanied by a cover letter requesting participation and identifying the importance of the study. Suggestions for improvement of the survey were also sought. The survey was revised based on this feedback before the primary data collection was initiated.

In the data collection, simple random sampling within each stratum was performed in order to include firms with different size, age and industries. Surveys were sent to top executives who would likely be knowledgeable about operations in the China market and the personal connections between China and Taiwan entities.

Based on previous research, FDI level was measured by capital investment, number of employees, and revenues (Ursacki & Vertinsky, 1992). To overcome shortcomings associated with a single measure of performance (Seth, 1990) and in order to capture different strategic objectives of foreign investors, the present study measured firm performance along three dimensions: ROI (return on investment = net income after tax/total investment), SGR (sales growth rate) and PROF (profitability) (Conant, Mokwa, & Varabarajan, 1990).

Firm size (SIZE), R&D intensity (RND), international experience (INTLEXP) and managerial capabilities (MGLCAP) were used to represent firm specific factors (Dunning, 1973, 1979; Buckley & Casson, 1976; Teece, 1981). Firm size can be measured in various ways, such as total assets (Kogut & Singh, 1988; Yu & Ito, 1988), domestic sales or total revenue (Kimura, 1989; Erramilli, 1991; Li & Guisinger, 1992), and the number of employees (Norburn & Birley, 1988; Erramilli & Rao, 1993). Yu (1990) suggested two types of experience relevant for firms engaged in international business: country-specific experience and general international operations experience. Yu also supported the notion that country-specific experience exerts influence on the location of FDI. R&D intensity was measured by the R&D expenditures as a percentage of a firm's annual sales (Yu & Ito, 1988). The degree of managerial experience (Davidson, 1980) and the firm's managerial capabilities to handle international expansion were used to measure managerial capabilities.

Table 1 summarizes the operationalization of the variables utilized in the present study.

Table 1
Operationalization of Performance Measures

<u>Model Component:</u>	<u>Variable and Measure:</u>	<u>Example Source:</u>
<u>FDI Scale</u>	1. Total capital investment in China till the end of last year. (1 to 7 scale in \$)	Kimura (1989); Ursacki & Vertinsky (1992)
	2. Total sales for the lasting accounting year in China. (1 to 7 scale in \$)	
	3. Total number of employees in China. (1 to 5 scale in number)	Ursacki & Vertinsky (1992)
<u>Performance</u>	1. Sales Growth (1 to 7 scale in %)	
	2. Profitability (1 to 7 scale in %)	
	3. ROI (1 to 7 scale in %)	

Control Variables

Three control variables were employed, the first of which is home country membership. Firms of a given nationality reflect their country's geographic on governments, policies, culture, and industry (Pavitt, 1989), and these cultural differences may affect managers' decisions. A firm's unique resources and capabilities may be derived from its home country membership. Collis (1991) and Kogut (1991) found relationships between the unique resources of some multinational firms and home country conditions. In this study, the sample was limited to firms from a single home country- Taiwan, and thus the potential effect of home country membership has been controlled.

Second, the participation in a Taiwanese association in China serves as control variable to affect firms' FDI activities and performance. In the face of cross-strait political tension as well as the local ambiguity in China market, Taiwanese managers have several business associations to join across China. These associations help managers negotiate with government officials at the local, provincial, and central levels. Investments made by the members in an association also seek to enhance connections beyond the association's boundaries.

Finally, foreign investors can opt for either the joint venture (equity or contractual) or a wholly owned subsidiary as an entry mode. Since different modes are associated with different level of resource commitment, ownership control, and cost and risks, they will have different impacts on the firm performance. Previous studies have found that joint venture generally outperforms the wholly owned subsidiary, or vice versa (Pan, Li, & Tse, 1999). Lu and Beamish (2001) found that entry mode type is significantly related to the firm performance for small- and medium-sized enterprises (SMEs). Indeed, when a foreign firm enters a host country, especially in which the cultural, political, and economic systems differ greatly from its own, it is more likely to cooperate with a local partner that has developed unique specific skills.

Characteristics of the Research Sample

Data were collected through survey questionnaires replied by family-owned Taiwanese manufacturing firms that invest in China. Firms with incomplete company information have been eliminated from the sampling frame in four directories: Guangdong, Fujian, Kiangsu and Shanghai Special Economic Zones (SEZs). In order to secure a sufficient number of responses, surveys were sent out to 1,900 companies. In each region, about 60 percent of firms but in hundreds were randomly chosen. To increase the response rate, a reminder letter was sent out two weeks after the first mailing. In two and a half months later, the initial mail-out with follow-up efforts produced 324 responses, of which 18 were incomplete, 30 were returned due to the wrong address or the withdrawal of investments by the firm. Two separate mailings yielded 276 usable observations, or a 14.5 percent response rate. No statistically significant differences were observed between responders and non-responders based upon firm size.

It should be noted that Taiwanese investors often keep a very low profile regarding their investment in China because of the political tension between the two sides of the strait, and might have easily chosen not to respond (Bruton, Ahlstrom, & Yeh, 2004; Yang & Tu, 2004). The Taiwanese government has regulated investments in China in some industries. In light of these circumstances, the 14.5 response rate is respectable.

Sample data suggested that initial Taiwanese investments concentrate in two provinces, Fujian and Guangdong, but later tended to move to East coast area, Kiangsu and Shanghai. Over 60 percent of the sample firms indicated that they made an initial entry into China through a third country, such as Hong Kong and British Viking Island. Over 73 percent of sample companies chose sole ownership as their mode of entry into China. It should be noted that 65 percent of the sampled Taiwanese companies have less than 100 employees, and 63 percent of Taiwanese firms in this study have joined a Taiwanese association in China.

In order to estimate the ability to yield consistent results, the reliability of our questionnaire is assessed by the Cronbach's (1951) alpha. Alpha coefficients were calculated for each of the constructs measured by multiple indicators. All but three exceeded the minimum benchmark of 0.7 suggested by Nunnally and Bernstein (1994).

A confirmatory factor analysis was performed to ascertain the validity of the scales utilized in this study. The varimax rotation was performed on the underlying factor structure because it maximizes the sum of the variances of the required loadings of the factor matrix, thus enhancing the interpretability of the factor (Hair et al., 1998). Descriptive statistics, correlations, and results of the principal component analyses are provided in tables 2-5.

Table 2
Descriptive Statistics and Correlations of the Dependent Variable Measurements

Items	Mean	S.D	1	2	3	4	5
1. China Sales	3.615	1.736	1.000				
2. China Assets	3.393	1.687	.735**	1.000			
3. Number of Employees in China	3.142	1.372	.584**	.594**	1.000		
4. Sales Growth	4.855	1.297	.337**	.304**	.248**	1.000	
5. Profitability	4.534	1.264	.317**	.246**	.237**	.749**	1.000
6. Return on Investment	4.546	1.354	.349**	.259**	.274**	.724**	.920**

S.D. Standard Deviation * p< 0.1, ** p< 0.05, ***p< 0.01.

Table 3
Rotated Principal Component Analysis Factor
Matrix of Dependent Variable Items

	Factor 1 (PERF)	Factor 2 (FDISCALE)
1. China Sales	0.217	0.863
2. China Assets	0.131	0.889
3. Number of Employees in China	0.125	0.817
4. Sales Growth	0.857	0.195
5. Profitability	0.952	0.133
6. Return on Investment	0.937	0.168
Eigenvalue	2.597	2.286
% Variable Explained	43.279	38.108
Cumulative % Variance Explained	43.279	81.387
Cronbach Alpha's	0.84	0.92

Kaiser-Meyer-Olkin Measure of Sampling Adequacy: 0.748
Bartlett's Test of Sphericity Chi-Square: 1137.969 (Sig. 0.001)

Table 4
Rotated Principal Component Factor Analysis Loadings

Firm Specific Factors	
SIZE	
1. Taiwan Sales	0.901
2. Taiwan Assets	0.906
3. Taiwan Employees	0.866
Eigenvalue	2.514
% Variable Explained	25.138
<u>Cronbach Alpha</u>	<u>0.88</u>
RND	
4. RND Expenditure	0.881
5. Technology Skills	0.856
Eigenvalue	1.601
% Variable Explained	16.006
<u>Cronbach Alpha</u>	<u>0.72</u>
INTLEXP	
6. Years of Establishment	0.882
7. Years of Experience in Int'l Exp	0.814
8. Years of Experience in China	0.632
Eigenvalue	2.000
% Variable Explained	20.000
<u>Cronbach Alpha</u>	<u>0.77</u>
MGLCAP	
9. Management Skills	0.833
10. Managerial Experience	0.696
Eigenvalue	1.576
% Variable Explained	15.762
<u>Cronbach Alpha</u>	<u>0.45</u>

In order to achieve strong correlations between the variables, Bartlett's test statistic for sphericity was calculated (Norusis, 1999). In addition, the Kaiser-Myer-Olkin (KMO) measure of sampling adequacy is an index for comparing the magnitudes of the observed correlation coefficients to that of the partial correlation coefficients. If the variables share common factors, the partial correlation coefficients between all pairs of the variables should be smaller, indicating that the larger is the KMO measure. A KMO measure value of 0.6 is considered acceptable

(Norusis, 1999). Results of the separate factor analyses on each of variables reveal that Bartlett test statistics for Sphericity are significant, and the KMO measures of sampling adequacy are between 0.673 and 0.748. Hence, there exist strong correlations between the variables, and suggest that factor analysis is warranted.

Findings

Firm-specific advantages like firm size, R&D intensity, international experience, and managerial capabilities seem to have positive influence on both the degree of a firm's FDI involvement and its performance in Mainland China. Even though the majority of previous literature suggests that firms engaged in FDI must possess firm-specific advantages to outperform the local competitors in the host markets, the results of this study are not fully consistent with some of the empirical studies. For the Taiwanese firms investing in China, previous business experience seem to be most important in their decision to invest and their performance in China.

Firm Size

Concerning the relationship between firm size and FDI, the size of the investing firm is measured by total assets, total sales and number of employees, and it has shown a significant positive relationship to the magnitude of FDI in China by Taiwanese firms. This finding confirms that firm size is a critical factor for a Taiwanese firm to undertake FDI in the advantage of its ability to expand resource overseas. Large firms, as previous studies suggest, tend to possess higher R&D capabilities, which may allow firms to achieve higher efficiency and better performance. However, size does not seem to be an important predictor of Taiwanese firms' performance in China. This is contrary to the previous empirical studies like Cohen (1996). An alternative explanation is that the employment of extensive FDI activities by relatively larger firm might escalate coordination costs and reduce the latent value associated with such investment.

Research & Development

The amount of FDI by Taiwanese firms in China is not significantly related to the R&D intensity and technology skills. In general, previous FDI researches focused on the firms in developed countries, and found strong support for positive relationships between technological resources and FDI. The results in this dissertation suggest that firms in developing countries like Taiwan are not similar to the ones in developed countries. Firms from developing countries generally possess disadvantages relative to the ones from developed countries with respect to technological resources. In addition, Taiwanese FDI may be induced by defensive motives to maintain the established export market rather than by offensive motives to exploit the technology-based advantages overseas. If true, a weak or no influence of R&D intensity on FDI intensity would be expected.

However, R&D capabilities show a statistically significant influence on Taiwanese firms' performance in China. This result is consistent with Pugel (1981) and Tallman (1991), who indicate that R&D is crucial to the ongoing creation of valuable rent yielding and know-how for developing new products. Firms with technological capabilities may allow firms to achieve efficiency in operation (Hitt et al., 1994), to achieve more competitive parity with rivals, and

finally, to improve their performance (Zahra, 1996). In all, Taiwanese firms that have developed higher levels of technological resources are likely to perform better than the others.

International Experience

It was anticipated that a firm's international experience would be positively related to the extent of Taiwanese FDI and firm performance in China. Strong supports are found from both regression models, implying that, other things being equal, a Taiwanese manufacturing firm with a certain level of experience in overseas markets tends to invest more in China than one without the same level of experience.

Since doing business in China is still complicated and particularly difficult, investors can be frustrated and disappointed by the distinctive practice they met in China (Davies, 1995). With the hope that uncertainty can be progressively reduced over time as accumulated learning takes effect in a country (e.g., Jahanson & Vahlne, 1992; Benito & Gripsrud, 1995), Taiwanese firms with more international experience are more confident in facing the challenges of even the relatively familiar markets of China (Chang, 2002). Many studies empirically confirm that a firm's multinational experience is positively related to the extent of its FDI in a country (Caves & Mehra, 1986; Terpstra & Yu, 1988; Yu, 1990). The fact that international experience is a statistically significant predictor of both the first entry and subsequent firm performance explains that experience acquisition is also driving more Taiwanese investments in China market in the future.

Conclusions and Future Research

Based on company-level data, this study provides empirical findings on the determinants of Taiwanese FDI and their performance in China. This study, however, is not free from limitations and we also provide recommendations for future research. First, this study looks at the investment behavior of manufacturing firms only. As Chinese economic reform proceeds continuously, more service industries such as banking, investment, trading and retail will be open to outside investors. It would be interesting to explore the investment behavior of service firms, and to compare the findings with the investment behavior of manufacturing firms reported in this study. Second, most FDI studies are based on secondary data (Dunning, 1981; Terpstra & Yu, 1988; Yu & Ito, 1988; Sabi, 1988; Yu, 1990). Only Agrawal and Ramaswami (1992) have used primary data to test the interactions between the factors of FDI. This study primarily relies on managerial perceptions to investigate the determinants of Taiwanese FDI activity and their firm performance in China market. Third, the sample is limited to the Taiwanese firms operating in only four regions in China. As such, the representativeness of the sample cannot be determined. In order to truly appreciate the generalizability of the empirical results reported here, future scholars need to investigate the applicability of the models to other regions in China. In contrast, a comparative study of the overseas Chinese investment experience with that of other non-Chinese investors in China would provide a meaningful contrast. Fourth, this research does not capture the influence of home country characteristics on firms' decision to invest in a particular country since it is a single-country study. The underlying assumption is that foreign investment is determined by host country characteristics (pull factor) and the investing country's (Taiwan) influences on FDI flow (push factors) are regarded as the constant rationale because of the

overall domestic location and investment disadvantages. Future research might include the domestic push factors into regression to empirically test these influence on FDI activities.

A number of challenges remain. First, the application of Western scales to non-Western samples remains a difficult process (Peng, Lu, Shenkar, & Wang, 2001; Scandura & Dorfman, 2004), and the present study was no exception. Even when scales are not translated to account for language and cultural differences for generalizability sake, scale reliabilities can suffer. When scales are translated and/or modified to address cultural differences, then direct comparisons between distinct cultural groups are tenuous at best. Solving this dilemma is not easy. Nonetheless, future research should embrace multiple approaches to develop a comprehensive understanding of the phenomena.

Second, Western models and instruments typically do not measure the constraints in which Chinese employers function (Adler, Campbell, & Laurent, 1989). As a result, Chinese applications of Western survey instruments such as the scales utilized in the present study have their limitations. Alternatively, researchers may choose to develop instruments from indigenous Chinese values (e.g., Fahr, Podsakoff, & Cheng, 1987; Fahr, Tsui, Xin, & Cheng, 1998) to maximize measurement precision. Unfortunately, doing so is expensive and typically produces results that are incomparable with Western literature (Peng, Lu, Shenkar, & Wang, 2001). Additional research that integrates both approaches in hypothesis testing may lend more robust and reliable conclusions. Further, Farh, Earley, & Lin's (1997) development of the Chinese organizational citizenship behavior (OCB) scale considered cultural variability *within* the Chinese culture, not between or among cultures. Hence, additional research that moves beyond pitting one culture against another will also be helpful.

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