

**Ownership Advantages, Foreign Investment and
Performance of Multinational Companies' Subsidiaries**

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Mehdi Rasouli Ghahroudi

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**Graduate School of Systems and information Engineering
University of Tsukuba**

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Mehdi Rasouli Ghahroudi

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Abstract

The purpose of this empirical study was to extend and develop the literature in foreign direct investment, ownership advantages and performance of multinational companies' subsidiaries. This research contributes to the literature by providing empirical support for several theories and previously defined and/or tested constructs. The parent and subsidiary's factors measured in this study suggest the importance of internationalization and ownership advantages of Dunning's eclectic theory. Moreover, according to resource-based theory, the number of employees, capital and total assets constructs measured in this study propose the effect of firm's recourses on performance and ownership of foreign companies.

Our finding show that foreign companies with higher levels of foreign ownership and experience in host market and those with greater sales growth rate and lower export have better performance in terms of asset growth. MNCs preferred to acquire high levels of control especially for large size subsidiaries. It shows that transaction costs play a very important role in the finding of an efficient and successful market entry strategy and when transaction costs increase, MNCs tend to switch to more hierarchical modes such as wholly owned subsidiary. However, we examine FDI and performance of MNCs' subsidiaries in three parts:

The first study explores Japanese foreign investment in India. Our findings show that in recent periods, Japanese MNCs prefer to acquire high levels of equity ownership, including full ownership to joint ventures, especially when the subsidiary is in the manufacturing industry. Our results imply that capital and full equity ownership have

positive effects on survival. However, the age of the venture and number of employees have negatively effect on survival. Finally we find that subsidiaries with a small number of employees are likely to have a superior sales growth ratio and more likely to survive. This implies that cost of human resource is critical for sales growth ratio and subsidiary's survival.

The second study examines first the impact of knowledge transfer factors, parent firm-specific and subsidiary characteristics on foreign affiliate performance. Second, explore the relationship between firm specific factors and foreign ownership ratio. Based on data derived from 3500 affiliates of MNCs in Japan, the findings show that the factors of industry, foreign employees and size of parent firm and subsidiary generate a statistically significant effect on performance. In contrast, country of origin, foreign manager and experience do not have any significant impact on performance of foreign affiliates. Finally, our findings indicate that manager authority and the number of foreign employees as proxies of knowledge transfer are positively associated with the ratio of foreign ownership. Therefore, foreign companies with greater ratio of foreign ownership are more likely to develop and transfer the knowledge in management and employees levels from parent companies. However, supported by resource-based theory, the number of employees, capital and total assets had impact on performance and they propose the effect of firm's recourses on ownership and performance of foreign companies.

Moreover, we found that firms with greater ratio of import are more likely to be organized as wholly owned subsidiary or greater ratio of foreign ownership.

The third study explores first the relationship between type of industry and subsidiary age, export ratio and MNCs' characteristics. Second, examines the impact of country of origin, foreign ownership and parent's specific factors on asset growth ratio

(AGR). Our findings show that the factors of foreign ownership, experience in host market, country of origin, export and parent company's sales and the number of employees as a proxy of firm size have significantly effect on AGR. The size of parent company has impact on subsidiary's performance. Also foreign companies in manufacturing industries are more likely to be organized as an international joint venture with a foreign manager and higher ratio of import and greater number of foreign employees. However, contrary to our expectations, we found that firms in service industries are more likely to have greater total assets than those in the manufacturing sector. Finally, firms with higher equity of ownership and those in manufacturing industry have superior import ratio. Based on transaction cost theory, when a company tries to determine whether to outsource or to produce goods or services on its own, market prices aren't the sole factor. There are also significant transaction costs, search costs, contracting costs and coordination costs. Those costs frequently determine whether a company uses internal or external resources for products or services.

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Chapter 1

Introduction

1.1. General introduction

In recent years the study of foreign direct investment and related subjects (entry strategies, joint ventures, knowledge transfer, cultural distance, parent and subsidiary's performance, etc.) has attracted the attention of scholars from diverse fields such as economics, international business, organization theory and strategic management (Sinha, 2005). The literature has identified different factors that affect internalization, entry modes and subsidiary's performance. However, few have attempted to address the subject of the survival of subsidiaries. In this study we examined the subsidiary survival rate using the available information about subsidiaries based on the Toyo Keizai database. In addition, we analyzed the sales growth ratio as a measure of subsidiary performance in order to better understand the effect of entry strategies, subsidiary age, number of employees and equity ownership.

Foreign investment may increase host market productivity through improved resource allocation, increased competition, and expansion of local capabilities through a transfer of know-how. Expansion of local capabilities occurs if FDI introduces superior organizational practices, machinery, and technologies and if know how spills over to, and local rival firms. The scope for such spillovers depends on technological strength of the parent firm, the extent to which technologies are transferred to the affiliate, and the extent of integration of the foreign firm into the host market (OECD, 2007)

Recently, India has experienced superlative economic growth for a developing country. In this study we analyze Japanese subsidiaries in India. The success stories of East and South East Asian countries suggest that foreign direct investment (FDI) is a powerful tool for export promotion since multinational companies, through which most

FDI is funneled, have well established contacts and up to date information about foreign markets. However, the experience of other Asian countries cannot be automatically generalized to India, given the lower level of infrastructure and commodity markets (Srinivasan, 1998, Sharma, 2003). Our data describes Japanese subsidiaries in India from 2001 through 2006 using the Toyo Keizai database.

As with a foreign subsidiary, the establishment of a joint venture involves the transfer of capital from the home to the host country and must, therefore, be viewed as part of the overall phenomenon of foreign investment. Many host countries consider it important to limit joint ventures to minority participation, rather than foreign majority companies, in order to obtain greater operational control over foreign affiliates. It is, however, an open question whether dilution of foreign holding necessarily means reduction of foreign control. While host countries encourage joint ventures, certain preconditions and infrastructure improvements are essential for their growth (Sengupta, 1998). FDI flows consist largely of four categories of capital account transactions (commonly referred to as “mode of entry”), namely: “greenfield” investment (whereby an enterprise is created essentially from scratch); mergers and acquisition involving significant cross-border elements; earnings reinvested in foreign-owned companies; and cross-border loans and trade credits between related enterprises. The latter two are not of major concern in a development context, whereas reinvested earnings sometimes make up a significant part of FDI flows between mature economies.

Trends in the mode of entry of firms investing in developing countries differ considerably from those of developed countries, where greenfield investment continue to dominate. However, driven by privatization, merger and acquisition have become an increasingly important mode of entry in developing countries as well in recent years.

The second part of this study is to explore the main determinants of the factors

influencing performance of foreign investment in Japan as a developed country, based on an integrative perspective incorporating contingencies at both parents and subsidiaries levels.

As the world's second largest national economy, Japan has long been a highly attractive market for the investors of business and industrial products. However, while many foreign firms maintain a significant presence in Japan, the performance of many others is often disappointing. The failure of foreign investors, including a great number of U.S. firms, in the domestic Japanese marketplace has been attributed to several causes, including demanding and skeptical Japanese buyers, cultural differences, and even discrimination against non-Japanese products (Melville, 1999).

Drawing on data from a sample of 3500 foreign companies, this study makes a number of contributions to the literature on foreign ownership and multinational companies' (MNCs) performance. First, it builds upon prior research by given a comprehensive account of various variables affecting performance, which may be critical to understanding the subsidiary's performance. Second, our research extends existing literature by integrating parent firm factors with the subsidiaries factors. Third, we use several variables to assess the performance, covering different measures of firm performance such as net profit, return on sales (ROS) and return on assets (ROA). Fourth, we compare different aspects of ownership advantages including management and employee levels of foreign investment including the interactions between parent companies and subsidiaries. Fifth, we employed variables like manager authority, foreign manager, new graduate and foreign employees as proxies of knowledge transfer and development. Researchers have focused on the firm, industry, and country levels of explanatory variables for both home and host country. A review of the equity ownership literature indicates a preponderance of studies focusing on firm characteristics and host

country characteristics.

Knowledge and technology transfer via four interrelated channels: vertical linkage with suppliers or purchasers in the host markets; horizontal linkages with competing or complementary companies in the same industry; migration of skilled labour; and the internationalization of research and development. MNCs generally are found to provide technical assistance, training and other information to raise the quality of the suppliers' products. Many MNCs assist local suppliers in purchasing raw materials and intermediate goods and in modernizing or upgrading production facilities.

The third part of this empirical study explores first the relationship between type of industry and firm's factors including ownership, experience, import and export ratio and MNCs' factors. Second, we examined the impact of country of origin, foreign ownership and parent's and subsidiary's factors on the asset growth ratio. The magnitude of foreign investment flows continued to set records through the last decade. In 2000, world total inflows reached 1.3 trillion US dollars or four times the levels of five years earlier. More than 80 percent of recipients of these inflows, and more than 90 percent of the initiators of outflows, were located in developing countries (OECD, 2002).

Building upon previous research, the present study investigates the firm specific factor versus industry structure and their effect on performance. However, a decidedly different approach is taken. First, we employed type of industry as dependent variable in order to examine the relationship of firm's factors with type of industry. Second, there are very few papers that used the asset growth for performance appraisals. Third, we build hypotheses to test key aspects of the firm's factor theories in the stream. Fourth, parent's firm factors and subsidiary factors are operationalized and measured to determine the firm's factors effect on asset growth ratio. Lastly, manufacturing versus

services firms are compared, which, surprisingly, has rarely been done.

In recent years, an increasingly large share of FDI flows has been through mergers and acquisitions (M&A). This partly reflects a flurry of transatlantic corporate takeover, and partly the large-scale privatization programs that were implemented throughout much of the world in the 1990s in developing countries. Foreign investment influences growth by raising total factor productivity and more generally, the efficiency of resource use in the recipient economy. This works through three channels: the linkages between FDI and foreign trade flows, the spillovers and other externalities vis-à-vis the host country business sector, and the direct impact on structural factors in the host market.

The major impact of foreign investment on human capital in developing countries appears to be indirect, occurring not principally through the efforts of MNCs, but rather from government policies seeking to attract FDI via enhanced human capital. Once individual are employed by MNCs subsidiaries, their human capital may be enhanced further through training and on-the-job leading. Those subsidiaries may also have a positive influence on human capital enhancement in other companies, with which they develop links, including suppliers (OECD, 2002).

Policy makers in some emerging markets - especially in those that are comparatively less developed and only loosely integrated into international trade systems - tend to see foreign investment as a possible vehicle for raising exports. The prevailing reasoning is that MNCs may increase the export orientation of domestic market through channels that include: their higher degree of sophistication in product quality, brand recognition and access to world markets; their potential for alleviating constraints on the use of the host market's factor endowment; and their longer-term impact on the international competitiveness of the host market business sector.

1.2. Research objectives

The purpose of this study was to extend and develop the literature in foreign investment and multinational companies' (MNCs) subsidiaries. There are several reasons for studying foreign investment and ownership. First, firms need to identify which host country industry factors are important in choosing among the various type of equity ownership (international joint ventures or wholly owned subsidiary). Second, international diversification through foreign market entry can provide growth and profitability at rates unavailable in home markets. A third reason this warrants some attention is the type of ownership that can be effectively used to counter international competition by engaging foreign rivals on their home turf. Fourth, firms have the option of choosing the appropriate equity ownership for international markets based on balancing their resources, capabilities, and international experience with their desire for ownership and control.

Foreign direct investment is very important to any national economy. While it is possible to survive using only funds generated from within one's own borders, this type of isolationism can too often have a negative impact on the growth prospects of the country. Although it is not the governments themselves that directly receive the funds, a stronger business economy is a boon to governments as it promises more jobs, a higher standard of living, and a greater tax base. And though target companies are under great scrutiny as far as profitability, growth, and potential are concerned, national factors such as country risk, political stability, and population and gross national product (GNP) growth can be deciding factors for investing companies (Dunning, 1998).

Developing countries, emerging economies and countries in transition have come increasingly to see foreign direct investment as a source of economic development and

modernization, income growth and employment. Countries have liberalized their foreign investment regimes and pursued other policies to attract investment. They have addressed the issue of how best to pursue domestic policies to maximize the benefits of foreign presence in the domestic economy. The study of foreign investment attempts primarily to shed light on the second issue, by focusing on the overall effect of foreign investment on macroeconomic growth and other welfare enhancing processes, and on the channels through which these benefits take effect.

As the reduction of foreign equity through legislation or persuasion is a difficult and lengthy process, many countries now prefer to impose a domestic equity requirement at the stage of entry of the foreign firms through the process of investment approval.

1.3. Contributions of research

Our findings offer a number of contributions to the literature. First, there are very few studies about foreign investment in India which has recently experienced superlative economic growth for a developing country. Second, most other studies focused on subsidiaries established in developed and Asian developing countries by focusing on one host country and foreign investment outflow of a single country, while our research covered foreign investment and MNCs from several home countries in Japan. Third, we adopt an integrative approach, which incorporates knowledge transfer factors, parent firm and subsidiary's variables. Fourth, we employ a multidimensional measure of performance which enables us to examine subsidiary performance determinants at different views. Fifth, our findings reveal that impacts of explanatory variables are different on various dimensions of performance. However, few have attempted to address the subject of the sales growth and asset growth as well as survival of subsidiaries.

The choice of research site (Japan) is defensible on several grounds. First, Japan is the world's second largest national economy; secondly, Japan is an important source of foreign investment research and Japanese foreign investment has an one of the largest FDI outflow in the world especially in South Asia and East Asian countries; and thirdly, there are very few studies in foreign direct investment research area focusing on foreign affiliated companies in Japan.

This study provides empirical support for several theories and previously defined and/or tested constructs. For example, the parent and subsidiary's factors measured in this study suggest the importance of internalization and ownership advantages of Dunning's eclectic theory. However, according to resource-based theory, the number of employees, capital and total assets constructs measured in this study propose the effect of firm's recourses on performance and ownership of foreign companies.

1.4. Organization of the thesis

This dissertation starts with the introduction (Chapter 1) of the focus, objectives and contributions of this research. After the first introduction chapter, the next three chapters present the main research, analyses, and findings. The final chapter concludes the thesis. The first part of this empirical study (Chapter 2) explores the relationship between age and entry strategies of wholly-owned vs. joint venture companies. We examine the effects of equity ownership, size, entry strategy and subsidiary age on the sales growth ratio and subsidiary's survival.

The second part (Chapter3) examines first the impact of knowledge transfer factors, parent firm specific factors and subsidiary characteristics on foreign affiliated performance. Second, examines the relationship between firm specific factors and foreign ownership ratio. And the third part of this empirical study (Chapter 4) explores

the relationship between type of industry and subsidiary age, export ratio and MNCs' factors. Also we examined the impact of country of origin, foreign ownership and parent's specific factors on asset growth ratio.

Chapter 5 presents the overall conclusions and implications of this research and explains the limitations associated with the analyses and results.

1.5. Conceptual framework:

The monopolistic advantage theory of FDI advanced by Hymer (1966) and Kindleberger (1969) asserts that the multinational corporations possess a rent yielding asset (e.g., production know-how) which gives them the edge in competing with firms in their home market, as well as with indigenous firms abroad. According to this theory, the multinational corporations have superior technology or product differentiation which enables them to compete in markets around the world. Therefore, it is plausible that they would operate in monopolistic industries at home and abroad.

Caves (1971) argues that monopolistic advantages, which are created by both advertising and R&D investments, characterize not just specific firms but rather firms within oligopolistic industries. In fact, Gruber et al. (1967), Caves (1974), and Mansfield, Romeo and Wagner (1979) reported that foreign direct investment tends to be associated with R&D intensity at the industry level. Knickerbocker (1973) also showed evidence that the timing of US MNCs' foreign direct investments are largely determined by their oligopolistic reaction to competitors' investments. In a similar context, Vernon (1974) and Graham (1978) suggest that reverse foreign direct investments (RFDI) are the reactions of non-U.S.-based MNCs to the FDI done by US.-based MNCs. Flowers (1976) suggests that the timing of European and Canadian FDI in the U.S. can be explained by oligopolistic reactions. If this line of reasoning is valid, it is expected that RFDI will be heavy in R&D and advertising-intensive U.S. manufacturing industries, because these industries invest abroad more extensively than others.

The product cycle theory of Vernon (1966) suggests that new products are likely to

be discovered and initially produced in the U.S. market due to the unique characteristics of the U.S. economy, such as higher per capita income, ease of access to the market, and efficient communication process. Subsequently, other industrialized nations' markets (e.g., Europe or Japan) will be served by export, and then be followed by production in these industrialized nations. The production location would ultimately move, via European industrialized countries, to less developed countries (LDCs) with lower labor and/or production costs, and the U.S. will import from these countries. It is plausible that, as the export market to the U.S. grows and trade protectionism increases, foreign multinationals of newly industrialized countries (e.g. Korea or Taiwan) may invest in the U.S. market, even if labor cost is generally higher in the U.S. than LDCs.

1.5.1. The Eclectic Paradigm

Early research on foreign direct investment identified the role played by research and development. Large, research-intensive firms, typically resident in the most developed capital markets, were observed to dominate FDI (Vernon, 1966; Gruber, Mehta, & Vernon, 1967; Hirsch, 1967). The decision to undertake FDI was a stage in their growth strategy (Buckley & Casson, 1976). These firms were able to create differentiated products that could be competitive abroad (Vernon, 1966; Caves, 1971; Hymer, 1976). The ability for a firm to utilize its competitive advantage through foreign investment was said to depend on discovering product, locational or financial market imperfections that encourage FDI. Dunning (1958), Vernon (1966), Caves (1971), Hymer (1976), Buckley and Casson (1976), Dunning et al. (1980) and Hennart (1989) pioneered the research to find a comprehensive framework for explaining foreign investment. This became known as the OLI paradigm (Ownership advantages, Location advantages and Internalization), and has been utilized intensively to the present time.

The OLI paradigm corresponds to answer three questions about foreign investment: (1) Based on present and potential ownership advantages, should a particular firm be involved in foreign markets?; (2) Based on location advantages, where should the firm invest abroad?; and (3) How should the firm serve foreign markets, should it be through internalization (FDI or sales subsidiaries) or through arms-length arrangements (such as licensing or export through intermediates)? The OLI paradigm offers a framework for answering these questions.

The “O” in the OLI paradigm relates to ownership-specific (firm-specific) advantages. In deciding whether to undertake FDI a firm must have developed firm-specific characteristics that enable it to be competitive in the home market. These characteristics must be transferable abroad and strong enough to compensate for the extra costs and barriers that confront those who try to do business abroad. Firm-specific characteristics typically possessed by successful MNCs are the proprietary knowledge or know-how incorporated in: (1) economies of scale and scope; (2) managerial and marketing expertise; (3) advanced technology stemming from a heavy emphasis on research; and (4) differentiated products.

The “L” in the OLI paradigm stands for location-specific advantages that skew foreign investment to a particular market. The theory of internationalization and its corollary, network theory, attempt to answer the question of where to invest. Aharoni (1966) initiated the behavioral explanation of foreign investment, especially the initial decision of where to locate FDI. The behavioral approach has been extended and improved by a formalized theory of the process of internationalization that explains not only the initial foreign investment decision but also the following reinvestment decisions. Network theory explains how the MNC and its subsidiaries interact and compete for power (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977;

Forsgren, 1989; Kogut & Zander, 1993; Chen & Chen, 1998; Pedersen & Petersen, 1998).

The current theory of “internalization” holds that it is critical for a firm to constantly upgrade proprietary information and control the human capital that discovers it (Buckley and Buckley, 1976; Krugman & Venables, 1994; Caves, 1996) . The “I” (internalization) factor in the OLI paradigm explains why a firm would choose to serve a foreign market through FDI rather than pursue alternative modes without ownership control of foreign activity.

1.5.2. The Classical Theory of Corporate Governance

The observations of the paradoxes of power and control at the level of the modern corporation refer back to Berle and Means (1965) and their work on the consequences of the separation of ownership and control. Fligstein and Freeland (1995) stylize from the literature three internal control problems and an even wider range of external control issues that extend the debate beyond the unbundling of ownership and control. They argue that the corporation may encounter tensions and conflicts of interests in each of these relationships: (1) the control relationship between management and workers, (2) relationship between management and shareholders, (3) division of labour and the subsequent division of power and responsibilities within the corporation or intra-corporate intra-management relationships, (4) relationship with investors and capital markets, (5) relationships with suppliers, (6) relationships with competitors, (7) relationships with the state, with governments and other public institutions. One may only speculate how each of these relationships could act as an important contributor to the increase or decrease of corporate productivity and performance. The obsession in the literature therefore with the problems associated with investors’ control that derive

from the unbundling of ownership and control (Blair, 1995a, Castanias and Helfat, 2001 and Gupta, 2002) is much more about the redistribution of rents among shareholders and residual claimants, rather than about improving corporate performance, enhancing corporate capabilities, and capturing the value added by different corporate agents.

1.5.3. Transaction Cost Theory¹

The transaction cost theory is the most popular theory in explaining international mode choice decisions (Hennart and Park, 1993). This theory focuses on individual economic exchanges (Schaefer, 2002). Transaction costs are composed of the costs of finding and negotiating with an appropriate partner, and the costs of monitoring the performance of the partner. In the transaction cost theory of foreign direct investment the essence is the cross border expansion of business. This expansion is based on the ideas that locating facilities abroad are more efficient than exporting to the country from the parent company and that the company finds it desirable to invest in that foreign country (Hennart and Park, 1993). Research shows that transaction costs play a very important role in the finding of an efficient and successful market entry mode (Hennart and Park 1993). Furthermore, they have found that when transaction costs are low, firms tend to rely on the market to deliver required target market benefits. As the costs increase they tend to switch to more hierarchical modes e.g. wholly owned subsidiaries. The core dimensions of these transactions are the asset specificity, the frequency of

¹ Developed by Ronald Coase in 1932 as part of a lecture given to students at the School of Economics and Commerce in Dundee, Scotland, and then turned into a paper titled, "The Nature of the Firm." At its core is this notion: When a company tries to determine whether to outsource or to produce goods or services on its own, market prices aren't the sole factor. There are also significant transaction costs, search costs, contracting costs and coordination costs. Those costs frequently determine whether a company uses internal or external resources for products or services. This is the essence of the make-vs.-buy decision.

economic exchange, and uncertainty surrounding the exchange of resources between the focal parties (Andersen, 1997).

The transaction cost theory has been criticized for the fact that psychic distance influence and institutional backgrounds are absent in the discussion of entry mode decisions. This is mainly due to the difficulties in understanding that social and cultural factors are only a part of the so called transaction atmosphere and that interaction effects between socio-cultural and transaction costs factors can not be determined in this simplified model theory (Schaefer, 2002). It has also been criticized for being unable to explain the evolution of entry modes (Lu, 2002) because it just offers a static view of organizational activities characterized by the absence of adequate social bonds. In response to these facts recent scholars have begun extending transaction cost theory by including cultural context and institutional context factors.

1.5.4. Resource-based Theory

The resource-based theory argues that firms possess resources, a subset of which enables them to achieve competitive advantage, and a subset of those that lead to superior long-term performance. Resources that are valuable and rare can lead to the creation of competitive advantage. That advantage can be sustained over longer time periods to the extent that the firm is able to protect against resource imitation, transfer, or substitution. In general, empirical studies using the theory have strongly supported the resource-based view

In contrast to the long-held of business strategy of focusing on the fit between the firm and its environment, the Resource-based Theory emphasizes factors internal to the firm. It is argued that acquisition and retention of resources that are rare, non-substitutable and, in combination, difficult to imitate are a source of economic rent

and accounts for the heterogeneity of firms in any industry (Reed and DeFillipi 1990; Mahoney and Pandian 1992; Oliver 1997).

According to this view, a company's competitive advantage derives from its ability to assemble and exploit an appropriate combination of resources. Sustainable competitive advantage is achieved by continuously developing existing resources and creating new ones and capabilities in response to rapidly changing market conditions. According to resource-based theorists like Grant (1991) and Peteraf (1993), firms can achieve sustainable competitive advantage from resources like strategic plans, management skills, tacit knowledge, capital, employment of skilled personnel among others. The assets and resources owned by companies may explain the differences in performance. Resources may be tangible or intangible and are harnessed into strengths and weaknesses by companies and in so doing lead to competitive advantage (Saffu and Manu, 2004).

**The previous chapter presented a general introduction of this study including conceptual framework. Chapter 2 examines the effects of equity ownership, firm size, age and entry strategies on the sales growth ratio and subsidiary's survival. Also we explore the entry strategies (wholly owned subsidiary vs. international joint venture) by MNCs and their impact on firm performance in host market.*

Chapter 2

Establishment, survival, sales growth and entry strategies of Japanese MNC's subsidiaries in India

2.1. Introduction

In recent years the study of foreign direct investment and related subjects (entry strategies, joint ventures, knowledge-transfer, cultural distance, parent and subsidiary's performance, etc.) has attracted the attention of scholars from diverse fields such as economics, international business, organization theory and strategic management (Sinha, 2005). The literature has identified different factors that affect internalization, entry modes and subsidiary's performance. However, few have attempted to address the subject of the survival of subsidiaries. In this study we examined the subsidiary survival rate using the available information about subsidiaries based on the Toyo Keizai database. In addition, we analyzed the sales growth ratio as a measure of subsidiary performance in order to better understand the effect of entry strategies, subsidiary age, number of employees and equity ownership.

Recent theoretical work has increasingly modeled the positive effects of FDI on local entrepreneurship through backward and forward linkages, showing the foreign firms may foster the development of domestic firms in the host country (Markusen & Venables, 1999)

Previous studies have been concentrated on subsidiaries' performance while operating in developed countries such as the United States (Li & Guisinger, 1991, Vega-Cespedes & Hoshino, 2002, Chung, 2001), and Europe (Nitsch et al., 1995, Brouthers & Werner, 1999, Dorrenbacher & Gammelgaard, 2006). Scholars have also examined subsidiary performance when operating in developing countries such as China, Thailand, Latin America and Brazil (Luo, 1996, Makino & Beamish, 1998,

Siripaisalpipat & Hoshino, 2000, Chen & Hu, 2002, Ogasavara & Hoshino, 2007a). There are few studies that examine the impact of capital, subsidiary age, ownership and number of employees on the survival of subsidiaries. In addition, there are few studies (Chung, 2001, Chen & Ku, 2000, Pangarkar & Hendry, 2003) which use sales growth in order to measure subsidiary performance. We studied the effect of subsidiary age and number of employees (as a proxy of subsidiary size), entry strategy and equity ownership on the sales growth ratio as a proxy of performance.

In the ASEAN countries, the Andean Pact countries and countries such as Bangladesh, Brazil, Kenya, Republic of Korea, Mexico, Nigeria and Pakistan, majority foreign ownership is permitted in priority, pioneer or promoted industries. Most countries also permit it in export oriented companies. Since 1973, India has limited foreign holdings generally to 40 percent, except in the export zones. There is hardly a facet of Indian psyche that the concept of “foreign” has not permeated. This term, connoting modernization, international brands and acquisitions by MNCs in popular imagination, has acquired renewed significance after the reforms initiated by the Indian government in 1991.

Thus far, India’s local firms have been viewed only as passive recipients of technology, faced with the challenges of overcoming many disadvantages vis-à-vis MNCs. The predominant view of local firms and entrepreneurs, at least until recently, was their persistent status as low-cost, low-skill operations. (Parthasarathy & Aoyama, 2006)

Recently, India has experienced superlative economic growth for a developing country. In this study we analyze Japanese subsidiaries in India. The success stories of East and South East Asian countries suggest that foreign direct investment (FDI) is a powerful tool for export promotion since multinational companies, through which most

FDI is funneled, have well established contacts and up to date information about foreign markets. However, the experience of other Asian countries cannot be generalized to India, given the lower level of infrastructure and commodity markets (Srinivasan, 1998, Sharma, 2003). Our empirical setting is Japanese subsidiaries in India from 2001 through 2006 using the Toyo Keizai database.

2.2. Theoretical background and hypotheses

Since the mid-1980s, Japan has been one of the largest sources of foreign direct investment in the world. Japanese corporations actively pursue overseas investments in response to the yen appreciation, protectionism, higher labour costs, slower domestic growth and the need to secure natural resources and markets. Developing countries, such as India, are particularly vulnerable as they lack infrastructure such as communication, training, education etc. India is required to maintain previous technology but is nevertheless, eager to set up new industrial plants. As a result, they compete globally to attract multinational companies for their investment and capital. In this process, they often ignore the safety and health violations that many multi-national companies (MNC) engage in. Developing countries confer upon MNCs a competitive advantage because they offer low-cost labor, access to markets, and lower operating costs. Once there, companies have little incentive to minimize environmental and human risks.

Foreign direct investment is a form of long term international capital movement accompanied by investors' intangible assets, such as the stock of technological knowledge accumulated by R&D or the accumulation of marketing know-how from past advertising activity (Ito & Fukao, 2005). Foreign direct investment includes significant investments by foreign companies, such as the construction of production

facilities or ownership stakes taken in some countries. Foreign direct investment not only creates new jobs, it can also lead to an infusion of innovative technologies, management strategies and workforce practices.

The purpose of FDI is to maintain long-term control of the management of the subsidiary. In addition, FDI is a means of accessing profit through purchase of equity as well as holding stock or shares in a foreign corporation. The relationship between ownership control and performance is curvilinear. Contrary to the prevailing views that advocate an equal sharing of equity, performance was found to improve with increasingly unequal levels of ownership (Ramaswamy et al. 1998). Japanese FDI in India was motivated by the desire to access local markets. It involved minimal transfer of technology and management skills. Japanese subsidiaries in India are operated independently (Anand & Delios, 1996).

There is hardly a facet of Indian psyche that the concept of “foreign” has not permeated. This term, connoting modernization, international brands and acquisitions by MNCs in popular imagination, has acquired renewed significance after the reforms initiated by the Indian government in 1991. Contrary to the grand narrative of 1991, the “opening of the flood-gates” idea, what took place was a gradual process of changes in policies on investment in certain sub-sections of the Indian economy. As a result of controversy surrounding foreign direct investment, owing to a lack of understanding, it has become the focus of a political storm (Singh, 2005).

Moreover, in contrast to Japanese direct investment in South-East Asia, FDI into the OECD countries² is mainly horizontal (i.e., it is done with the aim of serving local

² Organization for Economic Cooperation and Development (OECD). A multidisciplinary international body made up of 30 member countries that offer a structure/forum for governments to consult and co-operate with each other in order to develop and refine economic and social policy. While the OECD does not set rules and regulations to settle disputes like other international bodies, it encourages the

markets). For example, Yoshida (2004) finds approximately 90 percent of Japanese affiliate production in North America is sold locally in the US and Canada, while less than 1 percent of Japanese production in Europe is exported out of Europe. This is in contrast to “the overwhelming majority of Japanese manufacturing affiliates in East Asia perform assembly and finishing operations”, suggesting these affiliates serve in either a vertical FDI or export-platform capacity.

Lu and Hebert (2005) studied the moderating effects of asset specificity and uncertainty on the relationship between foreign parent equity control and international joint venture (IJV) survival in an empirical setting of Japanese IJVs in 12 Asian countries in the 1985-1996 periods. Their findings suggest that in the presence of high asset specificity, high level of foreign equity control can lead to higher IJV survival rates. Also, social knowledge can serve as a substitute for equity control in IJVs and contribute to higher IJV survival rates. Empirical evidence suggests that survival correlates positively with financial and satisfaction measures of performance (Geringer & Hebert, 1991). Post-entry survival of subsidiaries of multinational enterprises has received much attention from scholars. Previous studies reported that joint ventures have a very high failure rate (Kogut, 1989, Makino & Beamish, 1998). However, according to Hennart et al. (1998), past authors focused solely on joint ventures, considering exits by either divestiture or dissolution, allowing some misinterpretations of results. Investments involving small ownership levels have very high mortality rates. Those with high ownership levels have mortality rates comparable to that of wholly-owned subsidiaries (Ogasavara & Hoshino, 2007a).

Based on previous research, we present our hypotheses as followings; our first

negotiation of agreements and the promotion of legal codes in certain sectors. Its work can lead to binding and non-binding agreements between the member countries to act in a formal way. The OECD is best known for its publications and statistics.

hypothesis considered whether MNCs have different entry strategies in different periods based on the year of establishment.

H1. *The probability of establishing a wholly-owned subsidiary is positively correlated with establishment year.*

The majority of Japanese FDI in recent periods has been in the form of wholly owned subsidiaries (Beamish & Inkpen, 1998). The establishment of subsidiaries in developing countries has usually been theoretically related to taking advantage of the cheaper cost of resources, as well as a higher risk. Consequently, it is predicted that the subsidiaries frequently reveal features such as a large number of employees, low amounts of equity, manufacturing activities (rather than service activities) and a greater incidence of joint ventures. On the other hand, subsidiaries in developed countries are usually related to the sale of production and the delivery of services. They are usually wholly owned and require a higher level of investment. While in some countries the domestic market is the target, in some Asian countries, such as China and India, the host country government restricts the level of foreign ownership in local firms. These countries have pressured MNCs to develop International Joint Ventures (IJV) with local firms rather than to set up Wholly Owned Subsidiaries (WOS) as a means for local companies to acquire technology (Anand and Delios, 1996).

H2. *The firm size of subsidiary based on number of employees is negatively associated with subsidiary survival.*

Some scholars used the number of employees to measure the size of a company (Rasiah, 2003, Ogasavara & Hoshino, 2007a). The literature tells us that not only does the probability of survival increase with the size of a firm, but the variable exerts a positive interactive effect on this probability. Key survival factors includes the pre-existence of relationships with firms, prior experience, the size of the entrant at

start-up and the size of the parent (Tschoegl, 2000). The innovation has a positive and significant effect on the probability of a firms' survival. This effect increases over time and is conditional on the firms' age and size; the small and young firms are the most exposed to the risk of exit (Cefis & Marsili, 2006). The US industrial sector displays heterogeneity among firms on the basis of their size: smaller firms exhibit a higher profit rate, lower survival probability and difficulty in accessing the capital market (Dhawan, 2001).

H3. *Full ownership subsidiaries are more likely to survive than minority-owned subsidiaries.*

In the Lu & Hebert (2005) study, a high level of foreign equity control can lead to higher IJV survival rates. We expected that when a subsidiary has a greater equity ownership, especially full ownership, it is supposed to have more chance to survive. Wholly owned offer firms the highest levels of control, since there is no problem of having to integrate different cultures, divergent strategic viewpoints, and separate policies (Nitsch et al., 1996). However, it requires the highest resource commitments, it is a high investment risk, and the firm has the disadvantage of being 'foreign' in the local environment. This disadvantage stems from a lack of local knowledge which comprises information and know-how about the local economy, politics, culture, and business customs of a region; information on local demands and tastes; as well as information on how to access the local labor force, distribution channels, infrastructure, raw materials, and other factors required for the conduct of business in the host country (Makino and Delios, 1996).

H4a. *Manufacturing sector subsidiaries are more likely to be majority-owned than service sector subsidiaries.*

Scholars have debated whether the determinants of foreign entry decisions are the

same for service and manufacturing firms (Bouquet et al., 2004). We examine whether the industry differences of subsidiaries has an impact on equity ownership. When the subsidiary has been established as a manufacturing firm, MNCs prefer to have a greater equity of ownership.

H4b. *The age of a subsidiary is positively associated with the probability of establishing majority ownership.*

Previous findings suggest that the Japanese MNCs increase their ownership level with time (Beamish & Inkpen, 1998, Mansour & Hoshino, 2002). We expected, in different periods of foreign investment, parents companies were interested in different entry rates or equity ownership. In recent periods, MNCs operate more subsidiaries with majority owned equity than minority or co-owned subsidiaries.

H5a. *Older subsidiaries are more likely to have a greater sales growth ratio than younger subsidiaries.*

International management capabilities can be learned from international experience with foreign markets in general, as well as prior experience with a specific country and experience from operating a particular foreign subsidiary (Ogasavara & Hoshino, 2007a). Given that subsidiaries with longer experience are considered to enjoy greater experiential and tacit knowledge, age is considered to provide a significant relationship with sales growth.

H5b. *The subsidiaries with joint venture form of entry strategies are more likely to have a greater sales growth ratio than wholly owned subsidiaries.*

H5c. *The majority-owned subsidiaries are more likely to have a greater sales growth ratio than minority-owned subsidiaries.*

WOS typically offer the benefits of whole profits and greater control over the operations of a foreign subsidiary. However, since a foreign company is the sole owner,

it must expend greater resources in establishing the operation. In a joint venture, considerable resources need to be spent in finding a partner. The risk of choosing an inappropriate partner is also borne by the MNC parent. Partners must also work together to integrate different corporate cultures, divergent strategic viewpoints and separate politics (Pan & Chi, 1999). Some studies argue that joint ventures are intrinsically inefficient because of the inherently complex management relationships (Makino & Beamish, 1998, Pangarkar & Hendry, 2003). The study of Ogasavara and Hoshino (2007a) proposed that entry mode selection not only has an impact on performance, but also some industry and firm-specific advantages (ownership and internalization advantages) have an effect on subsidiary performance. Ownership and internalization advantages have both a positive and negative impact on performance. On the other hand, multinational experience showed a negative association with performance.

Without total ownership of its foreign subsidiaries the MNE would face higher transactional monitoring costs (or transaction cost) of its relationships with its subsidiaries. Ownership control through FDI is thus a response to market imperfections in the market for intermediates, such as knowledge, management, and corporate control. One option for the MNE is to sell its expertise to foreign firms. However, the intermediate markets for such transfers are imperfect and would undervalue the potential value of the transfer. Therefore, an MNE would find it more profitable to exploit its ownership-specific advantages through FDI. In this manner a larger value-added potential from the output of the firm's research could be retained in the MNE. The OLI paradigm does not explicitly address how finance-specific agency costs might affect FDI.

2.3. Research design and methodology

2.3.1. Sample and data collection

This empirical study examines the establishment, survival, size, entry strategy, equity ownership and sales growth of Japanese subsidiaries in India. The data sources used in this study were derived from Toyo Keizai databank (2001-2006); Japanese Overseas Investments (Kaigai Shinshutsu Kigyō Souran) listed by host country. The Toyo Keizai databank is an annual report that provides extensive information on the overseas activities of Japanese subsidiaries like the year of establishment, capital, employees, sales and ownership. We also used the Nikkei Annual Corporation Report 2005 (Nikkei Kaisha Nenkan: Jyōjyō Kaishaban) for additional information about Japanese companies.

The initial sample dataset contains a list of 270 Japanese subsidiaries in India, established by Japanese Multinational Companies from 2001 to 2006.

The unit of analysis of this study is the subsidiary sales based on financial data available between the years 2001 to 2006. From the initial sample of 270 subsidiaries, the sample was reduced to 263 cases for analyses of survival and majority ownership. However, due to incomplete data for sales and all the explanatory variables used in this study, we used a final count of 85 subsidiaries for the analysis of sales growth ratio.

2.3.2. Description and measurement of variables

2.3.2.1. Dependent variables

For this study we used three dependent variables based on our hypotheses. The first dependent variable is subsidiary survival as a dummy variable, coded 0 for closed or divested subsidiaries, and 1 for survivor subsidiaries. The second dependent variable is the majority owned subsidiary as dummy variable, 1 if the equity ownership for subsidiary is equal or greater than 51% and 0 otherwise. The third dependent variable is

the sales growth ratio, the measure of a firm's financial performance. Previous studies on Japanese MNCs have used the Toyo Keizai database as the main source of subsidiary performance (Delios & Beamish, 2001), measured by profitability on a scale of three performance levels (loss, break-even, and gain). Some scholars used the return on sales (ROS), defined as profit before tax divided by total sales, and also return on equity (ROE) to gauge subsidiary performance (Geringer & Hebert, 1991, Ogasavara & Hoshino, 2007a). Performance data at the subsidiary level are frequently lacking in consolidated reports and consequently are very difficult to obtain. Therefore, the performance measure was derived from the Toyo Keizai database and represents only information the Japanese firms are willing to provide. Given Japanese firms' private nature, the information about sales is limited in this database.

Sales growth ratio was measured by the ratio of average increase in total sales of five years sales growth rate leading to 2006 (2001-2006) as a proxy of subsidiary performance.

2.3.2.2. Independent variables

This study adopts independent variables such as subsidiary age, entry strategy, majority owned, full ownership, subsidiary size and also industry effect and capital as the control variables.

The age of a subsidiary was measured as the number of years since the subsidiary was founded (establishment year). The age of the subsidiary is important since it may be related to increasing independence (Hannon et al., 1995).

In this empirical study the entry strategy is based on the form of entry, including joint venture and wholly-owned subsidiary. Previous empirical researches on subsidiaries have found that wholly-owned subsidiaries outperform joint ventures. Entry

mode selection is one of the most important decisions faced by MNCs that are expanding in nations outside their home locations, whereby WOS (Wholly-Owned Subsidiary) and joint venture entail direct investment in business sites in the target country. Wholly-owned subsidiaries are subsidiaries in another nation in which the parent company has full ownership and sole responsibility for the management of the operation. Joint ventures on the other hands, involve a local and/or a foreign partner that share the ownership, management, risks and rewards of the newly formed entity. The international business literature has defined a joint venture by the percentage of equity held by the foreign parent (Ogasavara & Hoshino, 2007a). A subsidiary with 95 percent or greater ownership is considered to be wholly owned, coded 0. Less than 95% ownership is a joint venture and is coded as 1 for entry strategy variable.

The number of employees is used as a proxy for the firm size of subsidiary in logarithmic form. Since the distribution of subsidiary size values does not follow the normal distribution curve, the use of the natural logarithm of the number of employees is applied to smooth the values and to bring them closer to normal distribution.

We divided the ownership based on the percentage of equity held by the MNC into three categories, majority-owned, co-owned and minority owned subsidiary. Majority-owned is defined as a subsidiary with greater than 50 percent of equity ownership, co-owned when it is equal to 50 percent equity and minority-owned when the subsidiary has less than 50 percent equity. We coded 1 if the subsidiary is majority owned and 0 for other types of equity.

Full ownership measures as one hundred percent equity ownership. We used full ownership as a dummy variable which, when the subsidiary has 100% ownership, is coded 1, and otherwise coded 0.

2.3.2.3. Control variables

Impact of subsidiary's performance comes from a wide range of factors. By incorporating appropriate control variables we can be assured that findings have been adjusted for other potential impacts (Pan & Chi, 1999). The performance level of firms in one industry may be different from other industries. To avoid biases, as in Brouters et al. (2002), we included a dummy variable to control industry effects on the sales growth ratio, a value of 1 for manufacturing firms and 0 for service firms. We also employed the type of industry as an independent variable in order to analyze its effect on majority owned subsidiaries.

In this study, we used capital as an independent variable in order to see the effect on subsidiary survival, majority owned subsidiaries and also as a control variable for sales growth ratio regression models. Since the distribution of monetary values usually does not follow the normal distribution curve, the use of the natural logarithm of the quantity is applied instead of the monetary value of capital, in order to smooth the values and to bring them closer to the normal distribution.

2.4. Empirical analysis and discussion

As a preliminary step, Table 1 shows a sample distribution of Japanese subsidiaries based on size of equity ownership. We divided subsidiaries (263 samples) according to year of establishment and type of equity ownership (majority-owned, co-owned, minority-owned and full ownership) into four periods. This classification is based on the establishment of the first Japanese subsidiary to operate in India and until the 1980's which Japan has been one of the largest sources of foreign direct investment in the world as well as based on Indian reforms in the 1990's. As Table 2.1 shows, the first investment in India started from 1954 (Sesa Goa Co. Ltd., 51 percent equity ownership).

Of note is that the number of subsidiaries until 1990 was only 50 subsidiaries. From 1991 to 2000 this number increased to 143 subsidiaries. It shows that in the 1990's the number of subsidiaries increased almost three fold. This can be related to a gradual process of changes in policies on investment in certain sub-sections of the Indian economy that began in 1991. Modernization, international brands and acquisitions by MNCs in the popular imagination has acquired renewed significance after the reforms initiated by the Indian government in 1991.

Table 2.1: Sample distribution based on size of equity ownership

Establishment Year	Number of Subsidiaries	Ownership			
		Minority Owned	Co-Owned	Majority Owned	Full Ownership
1954--1980	13	10	0	3	0
	4.8%	76.9%	0	23.1%	0
1981--1990	37	26	2	9	0
	13.7%	70.3%	5.4%	24.3%	0
1991--2000	143	39	11	57	36
	53.3%	27.3%	7.7%	39.9%	25.1%
2001--2006	70	12	3	27	28
	25.9%	17.1%	4.3%	38.6%	40%
Total	263	87	16	96	64
	100%	33%	6%	37%	24%

*The values are stated in percentage of firm established in a period with the given mode.

Note: Majority-owned are subsidiaries which have greater than 50 percent equity and exclude 100 percent equity ownership.

According to the information illustrated in Table 2.1, in the years between 1991 and 2000 the percentage of majority-owned subsidiaries is 39.9% while the minority-owned is 27.3%. For the last period (2000-2006), the majority-owned and full ownership, respectively with 38.6% and 40%, showed the parents companies were interested in

keeping a larger equity ownership. It seems, Japanese companies were interested in investing in full ownership subsidiaries, based on the sample distribution. As the Table 1 shows, from 1954 to 1990 there were no full ownership subsidiaries established in this period. Despite the increasing number of subsidiaries, in the two last periods (1991-2000 and 2001-2006) respectfully more than 65% (39.9%+25.1%) and 78.6% (38.6%+40%) of subsidiaries had majority owned or full equity of ownership. Therefore, recently, Japanese multinational companies are more interested in holding the majority of equity of their subsidiaries in India.

Table 2.2: *Sample distribution based on entry strategy*

Period of Establishment	Entry Strategy		Number of Subsidiaries
	Joint Venture	Wholly Owned*	
1954 - 1980	13 100%	0 0	13
1981 - 1990	37 100%	0 0	37
1991 - 2000	103 72%	40 38%	143
2001 - 2006	40 57%	30 43%	70
Total	193 73%	70 27%	263 100%

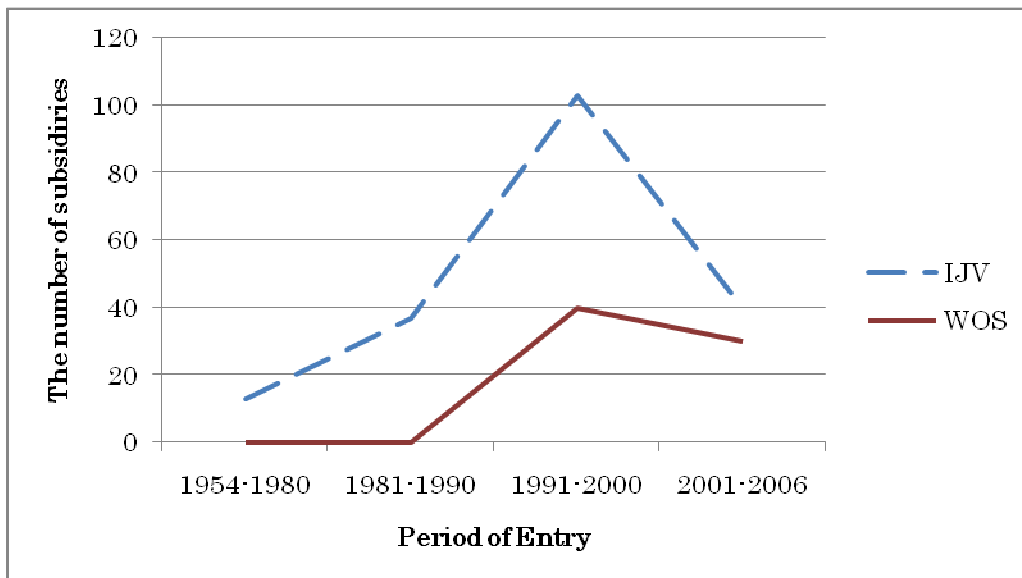
* Wholly-owned are subsidiaries with 95 percent or greater equity ownership.

Entry strategies in two general categories include wholly owned and joint venture. As shown in Table 2.2, until the 1990s there are no wholly owned subsidiaries. In total about 73% of subsidiaries are joint ventures with the remaining of 27% wholly owned subsidiaries. Although, some factors (e.g. export-oriented, country rules, industry and parent strategy) might have an impact on entry strategy, the data distribution shows, at

least recently, multinational companies have tended to acquire a greater equity of ownership.

As shown in Figure 2.1, the number of wholly owned subsidiaries is gradually increase from 1980s, while there is no wholly-owned subsidiary in India before this period. However as India relaxed constraints on high levels of foreign ownership, the MNCs increased their levels of ownership dramatically.

Figure 2.1: *The trend of JFDI in India based on entry strategy*



NOTE: IJV, International Joint Venture; WOS, Wholly Owned Subsidiary.

The correlations and descriptive statistics of all the variables in the regression models are reported in Table 2.3. The bivariate correlations show that the year of establishment (subsidiary age) is significantly related to entry strategies, including wholly-owned and joint venture. The subsidiary age (SUBA) was negatively significant (0.307) with entry strategy (ENST) on 1 percent significant level, supporting

Hypothesis 1 in this study. On the other hand, according to Hypothesis 1, wholly-owned subsidiaries had a positive relationship with subsidiary age.

Table 2.3: Pearson correlations matrix for variables

Variable	1	2	3	4	5	6	7	8	9	10
1 SURV	1									
2 SUBA	-.185**	1								
3 ENST	-.135*	.307**	1							
4 INEF	.159	-.127	.261	1						
5 SUBS	-.058	.287**	.148*	-.211	1					
6 CAPL	.112	-.054	-.099	.117	.253**	1				
7 SLSG	.090	-.116	-.012	.039	-.027	-.073	1			
8 MINO	-.059	.394**	.397**	-.162	.174**	-.090	.008	1		
9 COWN	-.027	-.085	.188**	-.151	-.013	-.026	.041	-.203**	1	
10 MAJO	.067	-.327**	-.487**	.206	-.155*	.104	-.025	-.792**	-.371**	1
11 FULL	.140*	-.302**	-.524**	.120	-.174**	.007	.032	-.388**	-.174**	.470**

** Correlation is significant 0.01. * Correlation is significant to 0.05.

Note: SURV - subsidiary survival. SUBA - subsidiary age; number of years since the subsidiary was founded. ENST - entry strategy; based on joint venture and wholly-owned subsidiary. INEF - type of industry; industry effect based on manufacturing firms and services. SUBS - subsidiary size; as a proxy of the number of employees in logarithmic form. CAPL - capital; preliminary investment at the time of operation in logarithmic form. SLSG - sales growth ratio; average of 5 years sales growth. MINO - minority-owned subsidiary; less than 50% equity ownership. COWN - co-owned subsidiary; less than or equal to 50% equity ownership. MAJO - majority-owned subsidiary; greater than 50% equity ownership. FULL - full ownership; subsidiary with 100% of equity ownership.

Descriptive Statistics (Table 2-3 continued)

Variables	N	Min.	Max.	Mean	Std. Error	Std. Deviation
SURV	263	0	1	0.726	0.028	0.447
ENTS	263	0	1	0.710	0.028	0.455
MINO	263	0	1	0.312	0.029	0.464
COWN	263	0	1	0.084	0.017	0.277
MAJO	263	0	1	0.346	0.029	0.477
CAPL (LN)	263	11.5	22.7	17.854	0.121	1.957
SUBS (LN)	263	0.7	8.6	4.760	0.096	1.553
INEF	263	0	1	0.611	0.030	0.489
SUBA	263	0	52	10.734	0.469	7.614

SLSG	85	-0.9	8.5	0.519	0.062	1.010
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For this study, we used survival as a dependent variable in order to measure the effect of independent variables on survival. As the results of binary regression, shown in Table 2.4, based on the Model 1, capital had positive significance with a subsidiary's survival.

Table 2.4: *Binary logistic regression for Survival and Majority-owned subsidiaries*

Variables	Model 1 Subsidiary Survival	Model 2 Majority Owned
Capital	0.341*(3.390)	0.205**(6.067)
Number of Employees	-0.521**(4.397)	-0.264**(5.670)
Subsidiary Age	-0.026*** (10.371)	0.077*** (10.640)
Full Ownership	0.660*(2.739)	
Type of Industry		-0.419*(1.802)
Constant	-0.811 (0.369)	-155.5*** (10.888)
Number of Cases	263	263
Cox & Snell R Square	0.253	0.146
Chi-square	14.095***	40.619***
Model Coefficients	0.007***	0.0001***

* Significant to 0.1. ** Significant to 0.05. *** Significant to 0.01.

Note: 1. Numbers in parentheses are Wald Statistics.

2. The dependent variable for Model 1 is subsidiary survival; for Model 2 is majority-owned subsidiary.

For this study, we used survival as a dependent variable in order to measure the effect of independent variables on survival. As the results of binary regression, shown in Table 2.4, based on the Model 1, capital had positive significance with a subsidiary's survival.

We had the same result for the effect of the size of the subsidiary on survival,

consonant with Ciavarella et al. (2003) that shows there was a significant relationship between the size of the venture and its survival in both the logistic regression equation and survival analysis. Therefore, the number of employees as a proxy of subsidiary size was negatively ($\beta = -0.521$) associated with a subsidiary's survival, supporting our second hypothesis (H2). The negative value of the number of employees shows that labor costs can have an effect on exit rate. In other words, subsidiaries with a fewer number of employees have a greater likelihood of survival.

The results show that based on hypothesis H3, full ownership (one hundred percent of equity) with a value of $\beta = 0.660$ was significantly related to survival. On the other hand, subsidiaries with full equity ownership are more likely to survive. Based on the result of binary regression analysis to examine the impact of age, capital, size of subsidiary and full ownership subsidiary on likelihood of survival, the following model can be explained:

$$\text{Subsidiary Survival} = f(\text{capital, subsidiary size, subsidiary age, full ownership})$$

The model can be expressed as:

$$SURV = \beta_0 + \beta_1 CPTL + \beta_2 SIZE + \beta_3 AGE + \beta_4 FULL + \varepsilon$$

Where, SURV is the survival, $\beta_1 CPTL$ is the capital, $\beta_2 SIZE$ is subsidiary size, $\beta_3 AGE$ is subsidiary age, $\beta_4 FULL$ is full ownership and β_i is the coefficient of the independent variables. β_0 refers to the constant and finally ε is the disturbance term. As the results of Table 2.4 shown, the coefficient and Chi-square (14.095) of Model 1 were significant to one percent.

We used Model 2 in order to test hypotheses H4a and H4b. Based on this model, the capital has a positive relationship ($\beta = 0.205$) with the majority-owned subsidiaries. The number of employees related negatively ($\beta = -0.264$) to the majority owned

companies to a five percent significance. In other word, subsidiaries with greater capital and a smaller number of employees are should be majority-owned subsidiaries. Model 2 shows the subsidiary age has a significant positive relationship effect on majority-ownership, supporting hypothesis H4b. In recent years, MNCs were more likely to operate majority owned subsidiaries (greater than 50% equity ownership) than minority or co-owned subsidiaries. Thus, based on the results of Model 2, the type of industry ($\beta = -0.419$) has a negative relationship with majority-ownership refuting hypothesis H4a. On the other hand, subsidiaries in the service industry are more likely to be majority-owned than manufacturing subsidiaries.

Table 2.5, presents the results of linear regression to test the effect of independent variables on the sales growth ratio as a proxy of a subsidiary's performance. Model 3 was considered the impact of entry strategy on the sales growth ratio. Based on the results in Model 3, there is no significant relationship between an entry strategy (0.019) and sales growth ratio. However, the results don't support hypothesis H5b, that joint venture subsidiaries are more likely to have a greater sales growth ratio than wholly-owned subsidiaries. This model with $R^2 = 0.214$ was significant (0.001) to one percent³.

³ Although the models showed value of R^2 around 0.214, the model is significant at 0.001 level. In addition, the objective of this study is not related to list all variables that affect performance, which will give a large number of covariates and consequently increase the level of R^2 . The aim of this study is to investigate more specifically the effects of firm's factors on performance at subsidiary level, while previous studies focused on this approach on performance at corporate level (Delios and Beamish, 1999; Lu and Beamish, 2001). Furthermore, past studies published in different and high level refereed academic journals in the international business, management, and economics area, which considered performance as a dependent variable, showed similar or lower level of R^2 in the empirical analyses.

Table 2.5: Linear regression results (sales growth ratio as dependent variable)

Variables	Model 3	Model 4
Constant	(-1.702)*	(-1.460)*
Entry Strategy	0.019 (0.177)	
Subsidiary Age	-0.045 (-0.377)	-0.029 (-0.246)
Number of Employees	-0.425*** (-3.169)	-0.394***(-3.004)
Equity Ownership;		
Majority-Owned		-0.046 (-0.166)
Co-Owned		0.028 (0.182)
Minority-Owned		-0.141 (-0.509)
Control Variables;		
Capital	0.378*** (3.244)	0.362***(3.123)
Industry effect	0.102 (0.957)	0.105 (0.975)
Number of Cases	85	85
R Squared	0.214***	0.227***
Adjusted R Squared	0.163	0.157
df	5	7
F statistic	4.236	3.228

* Significant 0.1. ** Significant to 0.05. *** Significant to 0.01.

Note: The t values are in parenthesis

The result of Model 4 shows, first, no significant relationship ($\beta = -0.045$) between subsidiary age and sales growth ratio. Thus, based on the result, the age of subsidiary as a local experience (Lu & Hebert, 2005, Ogasavara & Hoshino, 2007b) didn't have an effect on performance and do not support hypothesis H5a in this study.

Second, our results show that there is no significant relationship between majority-owned subsidiaries and sales growth ratio. This implies that the hypothesis H5c cannot be supported. Third, the number of employees had a negative significant

effect on sales growth ratio in Model 3 and 4 ($\beta = -0.425$, $\beta = -0.394$) to one percent significance. Therefore, the number of employees as a proxy of subsidiary size is negatively related to the sales growth ratio. On the other hand, subsidiaries with a small number of employees are more likely to have a greater sales growth ratio as a proxy of performance. Fourth, in both models we found that capital as a control variable (Model 3, $\beta = -0.425$; Model 4, $\beta = -0.394$) had a significant effect on the sales growth ratio, to a 1% level of significance. On the other hand, there is no significant relationship between industry effect (type of industry) and sales growth ratio. As reported on Table 2.5, Model 4 was significant ($R^2 = 0.227$) to one percent.

2.5. Conclusion and limitations

In this empirical study, we examine three dependent variables based on our hypotheses. First, we analyzed the effects of capital, number of employees, subsidiary age and full ownership on the survival of subsidiaries. Our findings show that capital, the number of employees (as a proxy of subsidiary size) and full equity of ownership had significant effects on survival. Specifically, subsidiaries with small numbers of employees, greater preliminary capital and one hundred percent equity of ownership have a higher likelihood of survival. Second, we found that when a subsidiary operates in the manufacturing industry, the multinational companies prefer to have a majority of equity ownership. It may be due to assets, export orientation, production technology transfer or future advantages. Also, based on our results, in recent times, the Japanese MNCs prefer to acquire high levels of equity ownership, including full ownership and wholly-owned subsidiaries.

In addition to entry mode selection, according to Dunning's eclectic paradigm (Dunning, 1977, Dunning, 1980 and Dunning, 1988), some industry and firm-specific

factors, as delineated in ownership and internalization advantages, have impact on subsidiary performance. By focusing on one host country and FDI outflow of a single country, the location advantage is controlled (Woodcock et al., 1994 and Nitsch et al., 1996). Although the ownership and internalization advantages have been long explored in the conceptual and empirical literature on FDI, multinational firms, and foreign subsidiary performance, most other studies focused on entry mode and performance of subsidiaries established in developed and Asian developing countries.

The ability for a firm to minimize its cost of capital and maximize its availability should be seen as an ownership advantage. A firm that has chosen a proactive financial strategy to achieve this objective has a competitive advantage in future bidding to acquire international assets. This also provides the firm with a partial protection from being acquired by another firm that also has a competitive cost and availability of capital.

As with a foreign subsidiary, the establishment of a joint venture involves the transfer of capital from the home to the host country and must, therefore, be viewed as part of the overall phenomenon of foreign investment. Many host countries consider it important to limit joint ventures to minority participation, rather than foreign majority companies, in order to obtain greater operational control over foreign affiliates.

Third, we analyzed Japanese subsidiary's performance based on the sales growth ratio. We found that there is no significant relationship between subsidiary age, entry strategy and equity ownership (especially majority-owned subsidiaries) with sales growth ratio. The findings suggest that the number of employees as a proxy of subsidiary size has an impact on the sales growth ratio. On the other hand, subsidiaries with a small number of employees have a greater rate of sales growth. Therefore, based on this study, subsidiaries with a small number of employees have a greater sales

growth rate and thus more likelihood of survival. This implies that cost of human resource is critical for sales growth ratio and subsidiary's survival.

As a measure of size and growth, capital employed was left to be more relevant from an entrepreneurship point of view. An increase in the FDI activity has a crowding out effect on local entrepreneurship activity (Das, 2002). Analytically, the study of entrepreneurship in the multinational subsidiary is at a relatively early stage of development. Multinational subsidiary entrepreneurship can be viewed as a developmental process, and therefore, the literature on developing subsidiary strategies has considerable significance (Boojihawon et al., 2007). There is a positive relationship between foreign direct investment and entrepreneurship. The import competition and foreign direct investment discourage entry and stimulate exit of domestic entrepreneurs (Backer & Sleuwaegen, 2003).

This study has several limitations, related to its validity and scope. First, the scope of our conclusions is limited to the context of Japanese subsidiaries in India. Second, the data used in this study were from 2001 to 2006. The third limitation is related to the subsidiary data used in this study, published by Toyo Keizai Inc., which has limited data about subsidiaries. Therefore, there are more variables which could affect the results of survival and performance. These problems cannot be avoided since there is only the one source of Japanese subsidiary data available. Nevertheless, our findings illustrate the importance of year of establishment, equity ownership, survival and the sales growth ratio for Japanese subsidiaries in India.

**The previous chapter examined the performance (based on sales growth ratio) and survival of JMNCs' subsidiaries in India. Our finding suggested that first, subsidiaries with small numbers of employees, greater preliminary capital and one hundred percent equity of ownership have a higher likelihood of survival. Second, when a subsidiary operates in the manufacturing industry, MNCs prefer to have a majority of equity ownership. In Chapter 3, we examine the ownership and performance (based on ROA, ROS and profitability) of foreign affiliated in Japan. As the effect of subsidiary's factors has been discussed in previous chapter, we extend the subsidiary's factors with parent company's firm factors in order to analyze the performance and ownership advantages based on WOS and IJV.*

Chapter 3

Foreign ownership, knowledge transfer, firm-specific factors, management and performance of foreign companies in Japan

3.1. Introduction

As the world's second largest national economy, Japan has long been a highly attractive market for the investors of business and industrial products. However, while many foreign firms maintain a significant presence in Japan, the performance of many others is often disappointing. The failure of foreign investors, including a great number of U.S. firms, in the domestic Japanese marketplace has been attributed to several causes, including demanding and skeptical Japanese buyers, cultural differences, and even discrimination against non-Japanese products (Melville, 1999).

The primary of the paper is to explore the main determinants of the factors influencing performance of foreign investment in Japan as a developed country, based on an integrative perspective incorporating contingencies at both parents and subsidiaries levels. Drawing on primary data from a sample of 3500 foreign companies, this study makes a number of contributions to the literature on foreign ownership and multinational companies' performance. First, it builds upon prior research by given a comprehensive account of various variables affecting performance, which may be critical to understanding the subsidiary's performance. Second, our research extends existing literature by integrating parent firm factors with the subsidiaries factors. Third, we use several variables to assess the performance, covering different measures of firm performance such as net profit, return on sales (ROS) and return on assets (ROA). Fourth, we compare different aspects of ownership advantages including management and employee levels of foreign investment including the interactions between parent companies and subsidiaries. Fifth, we employed variables like manager authority, foreign manager, new graduate and foreign employees as proxies of knowledge transfer

and development.

Researchers have focused on the firm, industry, and country levels of explanatory variables for both home and host country. A review of the equity ownership literature indicates a preponderance of studies focusing on firm characteristics and host country characteristics.

In this context, one of the most important decisions faced by a firm going abroad through a foreign investment is that related to the ownership arrangement, and in particular, the choice between a wholly owned subsidiary and a joint venture. Many authors refer to this decision as entry mode choice and consider the main alternatives to be full control over the foreign unit (either by acquisition or new creation) or joint ventures with a partner. From now on, we will refer indifferently to entry mode choice or ownership arrangement, in both cases meaning the degree of ownership exerted by the parent company on the subsidiary. Although the ownership and internationalization advantages have been long explored in the conceptual and empirical literature on foreign investment, multinational firms, and foreign subsidiary performance, most other studies focused on entry mode and performance of subsidiaries established in developed and Asian developing countries by focusing on one host country and foreign direct investment outflow of a single country.

In this paper, beside the equity ownership, we focus on a different viewpoint considering the foreign ownership ratio as a key issue for firm-specific factors and knowledge transfer. Mutinelli and Piscitello, 1998, maintain that competencies and assets are firm-specific, unique, very difficult to reproduce outside the firm's boundaries, and path-dependent. The difficulty of firms in building and acquiring knowledge and competencies influences their growth strategies and in particular, their entry mode and ownership in foreign markets, that is the decision to undertake

international joint ventures and alliances rather than wholly owned subsidiaries.

3.2. Theoretical background and hypotheses

There are several reasons for studying international modes of entry and ownership. First, the sheer amount of foreign direct investment flows in the world, make it a critical factor in overall economic performance. Second, firms need to identify which host country industry factors are important in choosing among the various modes of entry (joint ventures, acquisitions, or Greenfield ventures). Third, international diversification through foreign market entry can provide growth and profitability at rates unavailable in home markets. A fourth reason this warrants some attention is the various modes of entry or ownership that can be effectively used to counter international competition by engaging foreign rivals on their home turf.

Fifth, firms have the option of choosing the appropriate entry mode for international markets based on balancing their resources, capabilities, and international experience with their desire for ownership and control. Several studies have examined the performance differences between wholly owned and joint ventures (Nitsch et al., 1996; Pan et al., 1999; Ogasawara and Hoshino, 2007). Finally, equity ownership choices are often massive and irreversible and can influence the long-term performance of the firm (Shrader, 2001). Brouters' (2002) study of international market entry showed that firms selecting their mode of entry based on the institutional context, transaction costs, and cultural context variables should achieve higher entry mode success than firms selecting modes of entry that do not take these factors into consideration. We introduce the following factors into this context.

3.2.1. Knowledge transfer

In this study, we employed manager authority, foreign manager, new graduate, and foreign employees as knowledge transfer factors.

Research on knowledge transfer has developed out of studies focused on how firms could best accomplish international technology transfers to facilitate pursuit of Vernon's (1966) product life cycle. Early studies found that transfer costs decrease with experience (Mansfield et al., 1979; Teece, 1976 and Teece, 1977) and examined the speed through which firms are able to first develop and then transfer innovations to subsidiaries (Mansfield and Romeo, 1980 and Davidson, 1980). Early conceptual work focused on the role of administrative structures on knowledge flows to and from the rest of the corporation (Bartlett and Ghoshal, 1986). Birkinshaw and Morrison (1995) found that firms with organizational structures that supported combining activities and sharing resources across subsidiary boundaries were more innovative.

Previous studies have provided evidence that a country's knowledge transcends its national boundaries and contributes to the productivity growth of other countries. These studies usually presume particular channels of knowledge transmission (Lee, 2006). Foreign direct investment is also likely to be a significant channel for international knowledge transfer.

The importance of developing and sharing knowledge within the MNC has been stressed by various researchers (Buckley & Carter, 2004; Jensen & Szulanski, 2004; Schlegelmilch & Chini, 2003). The discussion of other researchers focuses on the issue of how to manage the processes of recognizing, developing, and sharing knowledge across subsidiaries worldwide (Foss & Pedersen, 2002; Mudambi, 2002; Yeniyurt et al., 2005). By tapping various kinds of knowledge from the subsidiaries, the MNC can share the existing knowledge and combine this in building new knowledge (Birkinshaw, 2001; Frost, 2001; Hadley & Wilson, 2003). When acknowledging the differentiated

MNC, the role of the diverse subsidiaries as creators and contributors of knowledge (Gupta & Govindarajan 2000) as well as the necessity for MNC subsidiaries to design and choose organizational mechanisms supporting knowledge development and sharing across subsidiaries, must be paid increased attention (Birkinshaw, 2001; Adenfelt and Lagerström, 2006).

H1a: *The knowledge transfer factors are positively associated with firm's performance.*

The knowledge-based model is based on an evolutionary view of the firm (Nelson & Winter, 1982) and focuses on cross-border transfer of knowledge. The model understands MNCs as social communities that specialize in the creation and internal transfer of knowledge (Kogut & Zander, 1993). Accordingly, the existence of MNCs is explained by the tacitness and codifiability of knowledge, which make it efficient and effective to transfer a set of capabilities overseas within the same governance structure as that in which the knowledge is embedded. Therefore, MNCs are understood not only as exploiters of their capabilities through knowledge transfer, but also as global learners in the global marketplace (Madhok, 1997).

An important variable that can determine the payoff from foreign ownership is the complementarity of firms' knowledge bases. Learning crystallizes when the new information encourages the organization to reexamine its assumptions, combine the new knowledge with existing knowledge, or modify its procedures and practices (Zahra et al., 2000). Greater opportunities to acquire, understand and assimilate new knowledge exist when foreign ownership complement rather than substitute their existing knowledge (Hoskisson and Busenitz, 2002). If the recipient firm has the requisite absorptive capacity, it can quickly assimilate and later exploit the knowledge gained from its international ventures. This can facilitate new product and process developments that improve profitability and growth (Block and MacMillan, 1993).

Consequently, the acquiring firms that have high absorptive capacity are more likely to benefit from their foreign ownership in gaining superior profits and higher rates of growth (Zahra and Hayton, 2008).

An approach to defining transfer success, termed knowledge internalization and adopted in this study, comes from institutional theory (Meyer and Rowan, 1977). It defines success as the degree to which a recipient obtains ownership of, commitment to, and satisfaction with the transferred knowledge. According to Kostova (1999), three factors appear to be related to knowledge ownership. First, greater discretion over the knowledge can allow a recipient to “invest more of their own ideas, unique knowledge, and personal style” in the knowledge (Pierce et al., 2001, p. 301). Second, the intensity of the recipient’s association with the knowledge (i.e. the number of interactions involving the knowledge) can affect its feeling of ownership. Lastly, knowledge ownership also relates to the degree that an individual invests energy, time, effort, and attention in the knowledge (Csikszentmihalyi and Rochberg-Halton, 1981). Thus, we hypothesize;

H1b: *The knowledge transfer factors are positively associated with type of ownership and foreign ownership ratio.*

We employed foreign manager, the number of new graduate, the number of foreign employees working in subsidiaries and the authority of top manager in subsidiary as proxies of knowledge development and transfer.

Pak and Park (2005) proposed that while knowledge transfer played only a marginal role in differentiating the selection of East or West, its effect became stronger when we considered only the two representative target countries, China and the US. This effect deserves consideration because cross-border knowledge transfer is the principal tenet of internalization theory, the knowledge-based approach, and the OLI

paradigm. Their results support the notion that the knowledge base of Japanese multinational companies exerts a significant influence on their investment activities in the US and China, and further, confirms that Japanese multinational companies with a higher level of knowledge development are more actively engaged in the US and West than in China and the East.

Branstetter (2000), using data on patent citations between Japanese investing firms and American indigenous firms, shows that foreign investment is a significant channel for knowledge spillovers, both from investing firms to indigenous firms and from indigenous firms to investing firms. Hanel (2000) approximates the knowledge stock of foreign subsidiaries in 19 Canadian industries as being proportional to the share of sales accounted for by those subsidiaries. His estimation results also indicate that foreign knowledge stocks contribute to Canadian productivity growth; however, the estimated effect of foreign investment from one of his main models is statistically significant only at a 15 percent significance level.

The MNC motivation for investing in a particular country determines its relative bargaining power with respect to the host and this power balance influences the type of ownership.

Wholly owned subsidiary offer firms the highest levels of control, since there is no problem of having to integrate different cultures, divergent strategic view points, and separate policies (Nitsch et al., 1996). In addition to entry strategy, according to Dunning's eclectic paradigm (Dunning, 1988), some industry and firm-specific factors, as delineated in ownership and internationalization advantages have impact on subsidiary performance.

Dispatch of personnel from the parent multinational company (MNC) to manage or work in foreign affiliates has often been used as a way to transfer knowledge from

parent company to the subsidiary. Firms with more experience in a host country have developed organizational capabilities to that country, which are able to make greater commitments to foreign investments. Makino and Delios (1996) found that local firm's host country knowledge can substitute for the acquisition of local knowledge when the parent has spent a considerable amount of time in the host country.

3.2.2. Ownership advantages

The literature on foreign investment has recently analyzed the nature of the firm's entry mode choice in a foreign market, particularly the choice between a joint venture and a wholly owned subsidiary. The literature on modes of entry is extensive (Pan and Tse, 2000; Brouthers and Brouthers, 2001; Davis et al., 2002).

H2: *A foreign manager will be preferred to a local manager when the firm's ownership is wholly-owned or has a majority of foreign ownership.*

Foreign investment in developing countries has maintained relatively stable growth over the period, is concentrated in the tertiary industrial sector, with a higher level of control within a subsidiary, and has been initiated by parent firms with market-seeking and strategic-seeking purposes and with relatively strong ownership advantages (Makino et al., 2004).

The strategy of the parent is proxied by the type of ownership (wholly-owned subsidiary vs. joint venture) and the size of foreign investment venture relative to parent. Modes of entry and equity ownership are key variables in international business research (Li and Guisinger, 1991; Nitsch et al., 1996) and are believed to have a significant impact on performance. They are also an excellent proxy for the resources committed to the venture, as well as extent of control exerted by the MNC parent (Woodcock et al., 1994).

H3: *Wholly owned subsidiaries and firms with greater ratio of foreign ownership are more likely to have greater performance.*

The wholly owned subsidiary (WOS) typically offers the benefits of whole profits and greater control over the operations of a foreign subsidiary. However, since the foreign parent is the sole owner, it must expend greater resources in establishing the operations (Tatoglu and Glaister, 1998). Consequently there is greater downside if the venture fails. Previous studies have argued that, in risky environments, firms often choose other types of ownership over WOS (Pangarkar and Lim, 2003). In international joint ventures (IJVs), considerable resources need to be spent in finding a partner, and the risks of choosing an inappropriate partner are also borne by the MNC parent. Partners also must work together to integrate different corporate cultures, divergent strategic viewpoints, and policies (Nitsch et al., 1996; Pan and Chi, 1999). In fact, some studies argue that joint ventures are intrinsically inefficient because of the inherently complex management relationships (Beamish and Makino, 1994)

Though there is substantial literature examining the link between entry mode choice and performance, there are several issues with this literature. First, the criteria used by different studies to assess performance have varied across studies. While some studies have examined the degree to which an operation was integrated into the rest of the system, others use factors such as instability, exit rate and longevity. There are several issues with some of the measures employed. Lack of integration into the parent MNC's system may simply be a function of the parent strategic intent for the subsidiary. While control over a subsidiary may be critical to bring about strategic alignment between the parent and the subsidiary, control is hardly an end in itself and hence a problematic measure of subsidiary performance. Other measures such as the amount of exports to the parent also suffer from similar limitations (Pangarkar and Lim, 2003).

3.2.3. Parent firm-specific

Previous literature has argued that cultural differences might have a significant impact on the performance of MNC's subsidiaries (Child, 1994). Makino et al., 2004 research on Japanese investment in developed and less developed countries found that the cross-country differences in financial performance and the exit rate. In the other hand they concluded that the choice of location between less developed countries and developed countries is a key determinant of subsidiary performance. Also, their founding suggests that developing countries provide the environments that reduce the variability of both financial performance and survival likelihood. Therefore;

H4a: *The country of origin of parent company is positively associated with subsidiary's performance.*

A parent firm experience in the target market is critical for international expansion, and consequently can have significant effects on performance of foreign subsidiaries (Davidson, 1980). This experience can be learned only through learning-by-doing, which is time-consuming. Hence, the accumulation of experience helps the parent firm to increase know-how of doing business in the host market and consequently reduce operational uncertainties (Johanson and Vahlne, 1977).

The lack of international experience may cause the novice investor setting up a wholly owned subsidiary to take inappropriate decisions on matters such as the choice between producing certain inputs locally or importing them from the parent company, the location of plants in the foreign country, production levels, adaptation of products and services to local market requirements, management of relations with workforce, suppliers, customers, banks, local authorities. The empirical evidence confirms that earlier operations in the target country by the parent company increase the probability of

choosing a wholly owned subsidiary (Mutinelli and Piscitello, 1998).

Parent local experience revealed in a negative and significant effect on subsidiary. It means that having a longer presence in the local market allows the firm to interact with a variety of workers, customers, suppliers and other local actors (Zahra et al. 2000). In addition, it helps the firm to learn more about the host country, to develop more capabilities (Makino and Delios, 1996), to increase know-how of doing business in the market.

The host experience helps MNCs overcome the liability of foreignness and is likely to be positively associated with joint venture wholly owned. However, empirical results about foreign experience effect on entry mode are controversial (Somlev, 2005).

H4b: *The parent companies with greater performance are more likely to have subsidiaries with greater performance.*

H4c: *The higher the parent firms experience in the host market, the greater its propensity to enter through wholly owned subsidiary.*

There is a relationship between the size of the parent firm, the entry mode and performance (Brouthers, 2002; Luo & Tan, 1997; Pan et al., 1999; Pangarkar & Lim, 2003). For instance, Hennart and Park (1993) argued that managerial constraints on Greenfield expansion might be especially tight when the investor is a relatively small size organization. Larger size MNCs with global reach and an integrated network may facilitate a more effective supply chain (Glaister & Buckley, 1999) further enhancing cost effectiveness of operations and hence leading to better performance. In line with the findings of previous research that foreign parent size impacts on subsidiary performance (Brouthers, 2002; Child et al., 2003; Pangarkar & Lim, 2003; Rihai-Belkaoui, 1998), we hypothesize that:

H5: *The size of parent company is positively associated with subsidiary's performance.*

Entry aiming to acquire resources and complementary assets in foreign markets generally involves greater uncertainty and risk than domestic investments as it requires facing a complex environment where the firm has to deal with many unfamiliar factors. Those reasons induce the firm to commit itself in the costly exercise of gathering and collecting information (Radner, 1992) and influence the internationalization strategy of the firm, particularly its entry mode choice. That is crucial for small-sized firms which suffer from financial and managerial constraints. Constraints and the lack of complementary assets afflicting small-sized firms leave them with few means of reducing uncertainty and force them to resort to co-operative agreements with other (local) firms which enjoy easier access to information channels and assets, as a result of their close network of relations with the surrounding environment. Smaller firms going abroad are then particularly exposed to the risks inherent in foreign investment, because a failure could lead them to bankruptcy. For this reason, they would orient their internationalization strategies towards prudent arrangements, i.e. joint ventures and alliances, in order to minimize risks (Kogut and Singh, 1988; Larimo, 1994).

3.2.4. Subsidiary firm-specific

When intermediate market conditions are imperfect, firms have an incentive to bypass them by establishing internal markets (Buckley & Casson, 1976). Hence, one might expect JMNEs to pursue higher equity ownership in the East because of its imperfect markets. However, Buckley and Casson (1976) stipulate that there are further conditions (i.e., region-specific and nation-specific factors) required to organize an internal market. These are conditions that often fail to obtain in the East, where the social and legal environment imposes strict ownership restrictions, and is permissive to the piracy of patents and proprietary knowledge, and where the political mood is open

to at times to expropriation of foreign ownership. In concert, these political and legal constraints and risks discourage Japanese multinational companies from organizing the internal markets they might otherwise be motivated to create.

Accordingly, internalization theory appears to predict that multinational companies will have lower equity ownership in the East. The knowledge-based view seems to make the same prediction; the East has been targeted to exploit standardized technologies, and such a strategic motive usually leads to a lower level of commitment. Dunning's envelope OLI paradigm also expects that multinational companies will avoid full commitment in the East markets, where asset-augmenting activities are rarer than in the West.

The firms demonstrate increased propensity for foreign investment when they are more technology intensive, when their managers have more international experience, and when they are more profitable, controlling for firm size, financial leverage, prior global expansion, and home-country currency variation (Trevino and Grosse, 2002)

H6: *The size of subsidiary is positively associated with the ratio of foreign ownership.*

Relative size of the subsidiary is important for two reasons. First, it is a proxy for the importance of the subsidiary to the parent; which might, in turn, impact contributions by the parent (Luo, 2001). Greater contributions from the MNC parent in the form of technology or other skills might lead to enhanced revenue potential for the subsidiary. Secondly, relative size also serves as a proxy for the competitiveness of the subsidiary due to the presence (or absence) of economies of scale.

H7: *Firms with greater ratio of import are more likely to be organized as wholly-owned subsidiaries or firms with greater ratio of foreign ownership.*

In general, when foreign firms invested abroad in the same activity, the parent firms are more likely to possess skills, resources and intangible assets that can be transferred

to the subsidiaries (Li, 1995). The foreign owned companies tend to use outsourcing in order to provide required resources which may be determined by parent firm. The reasons might be access to the different markets and cheaper raw material; reasonable resources and knowledge or technology transfer.

Kiyota and Urata (2007) found a positive relationship between foreign investment and exports. Also, the multinational firms register faster export growth than domestic firms. They suggested the firms do not choose either exports or foreign investment. Rather, exporters choose whether or not to undertake foreign investment. The foreign investors strongly prefer firms with high export ratios with which they are more familiar on account of their higher foreign sales. Foreign investors hold more shares of high beta stocks than of low beta stocks for small firms (Lin and Shiu, 2003).

3.3. Research design and methodology

The research site was chosen on several grounds. First, Japan is the world's second largest national economy. Second, Japan is an important source of foreign investment research and Japanese foreign investment has one of the largest FDI outflows in the world especially in South Asia and East Asian countries. Third, there are a very few studies about foreign affiliated companies in Japan.

3.3.1. Sample and data collection

The empirical study examines the effects of equity ownership, country of origin, managerial skills, and employees, based on relationship between parent company specific factors and subsidiary's characteristics, on performance of foreign subsidiaries in Japan.

The primary data source for this study is the Toyo Keizai Inc. Foreign Affiliated

Companies in Japan: A Comprehensive Directory (Gaishikei Kigyo), which compiles information on the foreign subsidiaries in Japan that have been established by foreign companies from around the world. The database includes a sample of 3500 foreign subsidiaries established by parent companies from 52 countries which covering the period up to 2006. A summary of data distribution presented in Table 3.1 based on country of origin and type of ownership. Because of missing data for several variables, the final sample size for the analysis of each variable varied and was reported together with the results of the analysis wherever such a need arose.

As shown in Table 3.1, America (United States) with 1544 companies, which is more than 44%, has a great number of foreign affiliates in Japanese marketplace. Germany, France and England respectively with 386, 270 and 263 companies, have the great numbers of affiliates in Japan. Table 3.1 presents that from the all foreign companies reported in Gaishikei Kigyo, more than 60% (2105) of foreign companies are wholly owned subsidiaries while less than 40% of them have international joint venture ownership. Consequently, MNCs tends to acquire greater equity ownership when they have planned to enter in Japanese market.

Also, Table 3.1 presents the number of firms which are organizing by foreign manager based on each country. According to the information illustrated in Table 3.1, it is remarkable that Korea, China and Indonesia have high rates of foreign manager ship with 80%, 69% and 83% subsidiaries having foreign managers, while only 23% of American subsidiaries, 27% of British and 32% of Germany's subsidiaries in Japan have a foreign manager. This implies that cultural differences and location factors may have a decisive influence on subsidiary management based on employing local managers or foreign managers. This could be due to Western business culture. Also, the location distribution of foreign companies in Japan is shown in Figure 3.1. It

demonstrates that the United States plus Canada and European countries respectively with 46 and 41 percent have a considerable majority of foreign subsidiaries in Japan.

Table 3.2 presents the number of foreign companies in Japan based on type of industry. According to data showed in Table 3.2, MNCs have more investment and greater number of subsidiaries in Machinery, electronic and electrical equipments; and other manufacturing industries in Japan.

Table 3.1: *Distribution of foreign companies by country and ownership*

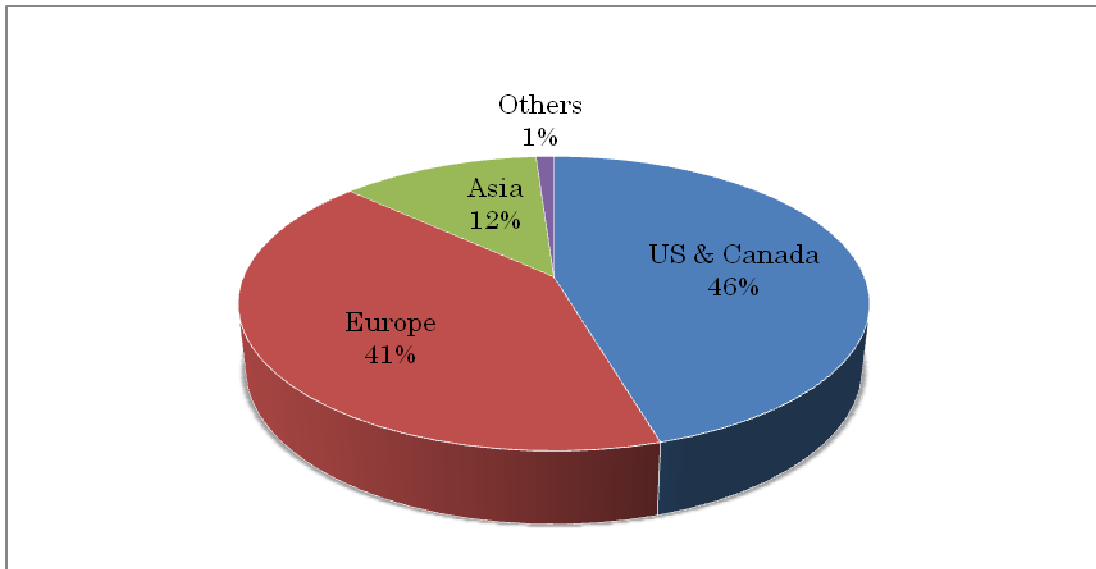
Country	Number	WOS	%	IJV	%	Foreign Manager	%
America	1544	922	60%	622	40%	356	23%
Australia	25	14	56%	11	44%	9	36%
Austria	20	15	75%	5	25%	7	35%
Belgium	27	16	59%	11	41%	9	33%
Bermuda	11	11	100%	0	0%	2	18%
Canada	46	36	78%	10	22%	23	50%
China	64	38	59%	26	41%	44	69%
Denmark	39	33	85%	6	15%	16	41%
England	263	121	46%	142	54%	72	27%
Finland	27	19	70%	8	30%	12	44%
France	270	164	61%	106	39%	133	49%
Germany	386	238	62%	148	38%	123	32%
Holland	74	48	65%	26	35%	31	42%
Hong Kong	62	35	56%	27	44%	15	24%
India	17	8	47%	9	53%	9	53%
Indonesia	6	3	50%	3	50%	5	83%
Ireland	8	7	88%	1	13%	2	25%
Israel	14	12	86%	2	14%	1	7%
Italy	70	47	67%	23	33%	35	50%
Korea	165	92	56%	73	44%	132	80%
Lichtenstein	8	5	63%	3	38%	4	50%
Luxemburg	5	3	60%	2	40%	1	20%
Norway	17	10	59%	7	41%	2	12%
Singapore	26	12	46%	14	54%	7	27%
Spain	13	6	46%	7	54%	8	62%
Sweden	54	45	83%	9	17%	20	37%
Switzerland	156	111	71%	45	29%	57	37%
Taiwan	45	22	49%	23	51%	22	49%
Others	38	12	32%	26	68%	15	39%
Total	3500	2105		1395		1172	
<i>Percentage</i>		60.10%		39.90%		33.50%	
Mean	120.69	72.59		48.1		40.41	
Std. Deviation	288.9	172.19		117.29		71.94	

Note: % is the percentage of each number.

Table 3.2: *Data distribution across industries*

Type of Industry	Number
Agriculture	2
Automobile	137
Bank	128
Chemistry	259
Construction	17
Consulting	155
Electronic & electrical equipment	331
Finance, insurance & real state	179
Food products	128
Information service	171
Machinery	355
Medical equipment & supply	151
Other manufacturing	340
Petroleum	23
Primary & fabricated metals	104
Publication	29
Retail industry	99
Services	252
Software	264
Steel	6
Transportation	150
Wholesale trade	220
Total	3500

Figure 3.1: *Regional distribution of foreign companies in Japan*



3.3.2. Description and measurement of variables

3.3.2.1. *Dependent variables*

For this study we used several dependent variable based on our hypotheses. The first are variables which measure the subsidiary's performance. Previous research indicates significant differences in the operationalization of performance with researchers assessing firm performance by measures such as profitability, learning and growth. Consequently, no consensus on an appropriate definition and measurement of performance has yet emerged (Demirbag et al., 2007). Many researchers recognize the inadequacy of traditional measures such as profitability in assessing subsidiary performance (Christman, Day, & Yip, 1999; Pothukuchi et al., 2002; Delios & Beamish, 2004). Since an international subsidiary might perform a variety of roles within the MNCs network, a multifaceted measurement might be more appropriate (Delios & Beamish, 2004; Demirbag & Mirza, 2000; Glaister & Buckley, 1999; Pangarkar & Lim, 2003; Tatoglu & Glaister, 1998). Studies using financial measures of performance indicated that WOSs perform better than JVs, but as Christman et al. (1999) argue, financial indicators do not include subsidies and transfer pricing.

Furthermore, the magnitude of profit manipulation in many cases is a closely guarded secret. In line with these arguments, we developed three different performance measures, as follows: return on asset (ROA), return on sales (ROS) and net profit. The ROA is an indicator of how profitable a company is relative to its total assets. It gives an idea as to how efficient management is at using its assets to generate earnings. It is calculated by dividing a company's annual earnings by its total assets and displayed as a percentage. ROS is a ratio widely used to evaluate a company's operational efficiency. It is determined by dividing net profit by sales. ROS is also known as a firm's "operating profit margin". This measure is helpful to management, providing insight into how much profit is being produced per dollar of sales. Net profit or net income is calculated by subtracting a company's total expenses from total revenue, thus showing what the company has earned (or lost) in a given period of time. The measure of net profit was computed as averages over 2001- 2006 period.

Second, the dependent variable for ownership is a dichotomous dummy variable constructed based on type of ownership the variable will take a value of zero when the subsidiary's ownership is international joint venture and will take a value of one when the subsidiary's ownership is wholly owned.

Third, to examine the effect of MNCs and subsidiary's characteristics on ownership, we divided the equity ownership based on the percentage of equity held by the MNC into three categories: majority-owned, co-owned and minority owned subsidiary. Majority-owned is defined as a subsidiary with greater than fifty percent equity and excluded one hundred percent equity ownership; a subsidiary is co-owned when the equity is equal to fifty percent and a minority-owned subsidiary has less than fifty percent equity. If the subsidiary is majority owned, it is coded 1 and 0 if categorized as one of the other types of equity. Fourth, the foreign ownership ratio, which is the

percentage of equity owned by foreign companies or parent company, has been used as a dependent variable to examine the relationship between foreign affiliated firm-specific and foreign equity ownership.

3.3.2.2. *Independent variables*

The independent variables were measured as follows:

Type of ownership: previous empirical researches on subsidiaries have found that wholly-owned subsidiaries outperform joint ventures. Entry mode selection is one of the most important decisions faced by MNCs that are expanding in nations outside their home locations, whereby WOS (Wholly Owned Subsidiary) and joint venture entail direct investment in business sites in the target country. Wholly-owned subsidiaries are subsidiaries in another nation in which the parent company has full ownership and sole responsibility for the management of the operation. International Joint Ventures (IJV) on the other hands, involve a local and/or a foreign partner that share the ownership, management, risks and rewards of the newly formed entity. However, in this study, we divided the ownership in two categories and used a dummy variable; a subsidiary is considered to be wholly owned and coded 1 if has 100 percent of equity ownership and otherwise coded 0 as an international joint venture.

We employed four independent variables in order to define the proxies for knowledge transfer. These variables are foreign manager, foreign employees, new graduate and manager authority which can be defined as follows;

Foreign manager is a non-Japanese manager of the foreign affiliate in Japan. We assume that using a foreign manager instead of local managers for a subsidiary increases the likelihood of knowledge transfer and development between multinational companies and their subsidiaries by bringing a broaden experience and training with

him. The existence of foreign manager is a dummy variable that takes a value of 1 if the subsidiary's manager is Japanese and 0 otherwise.

Manager authority refers to the formal or legitimate authority specified in a charter gives a top manager the authority to act in the name of the sponsoring executive or on behalf on the organization. Subsidiary's manager position was measured by a dummy variable which takes a value of 1 if the top position in affiliated firm is representative manager which has appropriate authority to manage the subsidiary and 0 otherwise.

A representative manager should be appointed and given authority by parent company to manage, monitor, evaluate and coordinate the subsidiary's activities.

Foreign employees are the number of foreign persons from parent's company or other countries except host country admitted to work in MNC' subsidiary in host market. The variable was measured by the number of non Japanese employees in subsidiary. The subsidiary's intensity of foreign employment is the ratio of foreign employees to total number of employees for each subsidiary.

New graduate refers to the number of new employees in foreign companies who are granted an academic degree including college and graduate degrees.

Country of origin is categorized based on parent's companies location. It was measured by using a variable which takes the value from 1 to 4 to represent each category. We give the value of 1 for United States and Canada, the value of 2 for countries from Europe, the value of 3 for Asia and the value of 4 for the others.

Parent firm size: Several measures have been used by researchers to measure for firm size, e.g., total assets (Yu and Ito, 1988), equity (Cho, 1985), exportation sales and total sales (Kimura, 1989; Agarwal and Ramaswami, 1992) expenditure in R&D (Makino and Delios, 1996) and number of employees (Demirbag et al., 2007, Rasouli and Hoshino, 2007). However, a previous test on the current sample shows that these

variables have a high degree of correlation. Because of that, the amount of total assets, sales and parent's employee, were chosen as the indicators of firm size.

We employed parent's sales growth ratio and parent's assets growth as a proxy of parent's performance. Also, we used the number of employees, the amount of capital and total sales of subsidiary as independent variables in order to measure the subsidiary size.

The corporation comprises three sets of distinct interests: the shareholders (the owners), the directors, and the corporation officers (the top management). Traditionally, the shareholders control the corporation's direction, policies, and activities. The shareholders elect a board of directors, who in turn selects top management. Members of top management serve as corporate officers and manage the operation of the corporation in the best of shareholders. In closely held corporations with few shareholders there may be a large overlap among the shareholders, the directors, and the top management are likely to be distinct groups.

The potential separation of ownership from management gives the corporation several advantages over proprietorships and partnerships: 1) because ownership in a corporation is represented by shares of stock, ownership can be readily transferred to new owners; 2) the corporation has unlimited life. Because the corporation is separate from its owners, the death or withdrawal of an owner does not affect its existence; 3) the shareholders' liability is limited to the amount invested in the ownership shares.

Import ratio and export ratio variables are determined by the ratio of the amount of import and export from affiliated company to third country.

Experience in host country: Makino and Delios (1996); Delios and Beamish (2001) used the parent company's experience in the host country in logarithmic form as a proxy for internalization advantage. It is computed as the log of the total number of

firm-years of experience in the host country for one foreign investment.

Parent's experience with the host country may interact differentially in terms of performance (Delios & Beamish, 2004; Uhlenbruck, 2004). Brouthers et al. (2000) found a negative relationship between experience and performance, while Luo and Peng (1999) argued that experience leads country specific knowledge to overcome the liability of foreignness; as a result the firm's performance improves. Given that firms with longer experience are considered to enjoy greater experiential and tacit knowledge, age is considered to provide a positive relationship with exports and capabilities.

Since the distribution of monetary values usually do not follow the normal distribution curve, the use of natural logarithm of the quantity is applied for parent's total assets, employees and capital; to smooth the values and to bring them closer to the normal distribution. In light of the controversy involving the defining criterion for different sizes, the number of employees, capital and total sales were used as multidimensional measures of the size.

3.3.2.3. Control variables

Industries are complex entities and multidimensional in nature, and the impact of industry structure on entry strategy and ownership has been relatively unexplored in previous studies. Also, the performance level of firms in one industry may be different from other industries. We included a dummy variable to control industry effects on the performance to avoid biases, coding a value of 1 for manufacturing firms and 0 for service firms.

Considering that other factors may influence the performance of a given subsidiary, the number of employees, capital, total sales and total assets are also applied as control variables for this study.

3.4. Empirical analysis and discussion

Table 3.3 presents the correlation matrices and descriptive statistics for study's variables. As the result of Pearson correlation in Table 3 shows; country of origin has a negative relationship with the number of parent's and subsidiary's employees ($p < 0.01$) and parent's assets growth ($p < 0.05$). Table 3.3 further shows prior experience in host country is positively associated with subsidiary sales growth and foreign ownership ratio on 1 percent significant level, respectively. Also, it is negatively associated with parent and subsidiary's employees as well as minority owned subsidiaries ($p < 0.01$). It implies parent companies that have a longer presence in the local market, do not prefer to enter as an international joint venture.

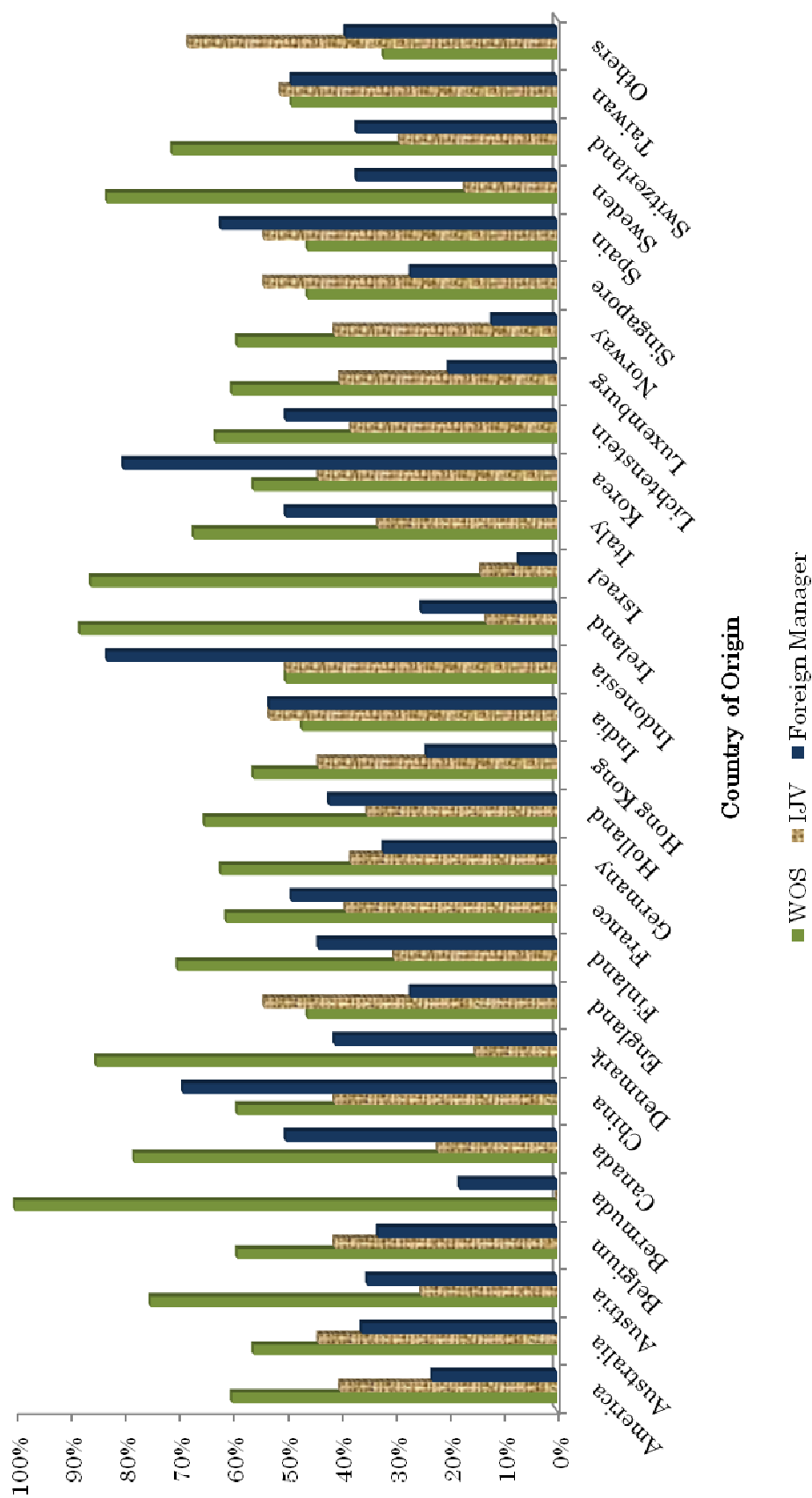
According to Table 3.3, foreign manager has negative relationship with type of ownership ($p < 0.05$) and foreign ownership ratio ($p < 0.01$) which states MNCs preferred to have a Japanese manager when the subsidiary is international joint ventures. Manager authority as a one of the knowledge transfer factors, which implies the level of authority acquired by subsidiary in order to make decision, is positively associated with return on assets ($p < 0.01$). However, they partially support hypotheses H1a and H1b.

Table 3.3: Bivariate Pearson correlation matrix for variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
1 Type of Industry	1																										
2 Prior experience	-.238**	1																									
3 Type of Ownership	-.034	.056	1																								
4 Majority-owned	.034	.095	.379**	1																							
5 Co-owned	.050	.066	-.386*	-.667**	1																						
6 Minority-owned	-.097	-.184*	-.346*	-.610**	-.157*	1																					
7 Country of Origin	.065	.033	.094	.031	.030	-.072	1																				
8 Initial wage	-.102	.091	.071	.108	.015	-.161**	.075	1																			
9 Foreign Manager	.122*	-.141*	-.127*	-.099	.063	.065	-.092	-.060	1																		
10 Foreign Employees	-.099	-.026	-.078	-.084	.118*	-.012	.052	.060	-.165**	1																	
11 Manager authority	.053	-.066	-.046	-.037	.087	-.062	-.085	.024	.061	-.060	1																
12 Parent's Assets Growth	.026	.011	-.011	.004	-.030	.024	-.113*	-.035	.071	-.105	.040	1															
13 Parent's Employees	-.182**	-.144*	.133*	.043	-.050	-.003	-.207**	-.007	.040	.129*	.077	.066	1														
14 Employees	-.171**	-.362*	-.122*	-.101	-.119*	.249**	-.177**	-.106	.024	.288**	-.063	.056	.430**	1													
15 Capital	-.184**	-.191*	-.186*	-.129*	-.042	.207**	-.099	.009	-.152**	.237**	.030	.057	.348**	.611**	1												
16 Parent's Sales Growth	.053	.016	-.064	.032	-.027	-.015	-.050	-.023	.055	.088	.035	.129*	.056	.067	.044	1											
17 Sales Growth	-.129*	.151**	-.010	.053	-.037	-.032	.045	.061	-.043	.021	-.097	.092	-.025	-.133*	-.087	-.005	1										
18 ROA	.101	-.074	-.035	-.076	.034	.055	.002	.029	-.042	-.051	.161**	.086	.089	.007	.067	-.027	.096	1									
19 Net profit	-.011	-.174*	-.080	-.097	-.040	.169**	.008	-.023	-.094	.211**	.006	.025	.116*	.296**	.305**	-.002	-.015	.001	1								
20 ROS	-.191**	.082	-.008	-.052	.019	.039	-.055	.085	-.058	.059	.108	.021	-.057	-.078	.104	-.012	.132*	.477**	.063	1							
21 Total sales	.041	.041	-.023	.061	.005	-.085	.008	-.018	-.030	-.017	.048	-.043	.056	-.029	-.003	-.004	.023	.133*	-.016	-.004	1						
22 Import	.290**	.034	.322**	.197*	-.146	-.133	.165	.204*	-.197*	-.111	-.129	-.053	-.107	-.476**	-.180*	.060	-.161	.009	-.104	-.068	-.006	1					
23 Export	.215*	-.075	-.003	.006	.002	-.017	-.105	.000	.137	.096	.016	-.134	-.049	.114	.143	.085	-.021	-.097	.027	-.090	.219**	-.122	1				
24 Foreign ownership ratio	-.065	.170**	.661**	.577**	-.328*	-.403**	.082	.166**	-.265**	-.079	-.100	-.096	.024	-.140*	-.094	-.008	.043	-.032	-.044	.062	.027	.382**	.054	1			
25 Shareholders	-.071	-.143*	-.175*	-.271**	-.031	.391**	-.035	-.076	-.003	.117*	-.066	.107	.106	.289**	.285**	.004	-.005	-.014	.578**	.071	-.027	-.113	-.053	-.163**	1		
26 New graduate	-.103	-.196*	-.135*	-.185**	-.006	.251**	-.049	-.073	.096	.168**	-.075	.162**	.183**	.440**	.349**	.005	-.031	.004	.225**	.068	-.009	-.250**	.027	-.173**	.487**	1	

* Correlation is significant to 0.05. ** Correlation is significant to 0.01.

Figure 3.2: *The percentage of foreign managers and type of ownership based on country of origin*



Descriptive Statistics (Table 3.3 continued)

Variables	N	Min.	Max.	Mean	Std. Error	Std. Deviation
Type of industry	310	0	1	0.623	0.028	0.486
Prior experiences	310	1.6	100.7	30.654	1.039	18.295
Type of ownership	310	0	1	0.474	0.028	0.500
Majority-owned	310	0	1	0.729	0.025	0.445
Co-owned	310	0	1	0.142	0.020	0.350
Minority-owned	310	0	1	0.129	0.019	0.336
Country of origin	310	1	3	1.490	0.043	0.754
Initial wage	310	176000	326000	216421	1092	19235
Foreign manager	310	0	1	0.752	0.025	0.433
Foreign employee ratio	310	0	0.408	0.020	0.003	0.055
Manager authority	310	0	1	0.723	0.025	0.448
Parent's assets growth	310	-0.645	1.312	0.128	0.011	0.189
Parent's employees	310	1	13.134	9.256	0.170	3.001
Employees	310	0.693	10.422	5.108	0.110	1.936
Capital	310	1	13.314	6.729	0.135	2.375
Parent's sales growth	310	-0.911	32.340	0.226	0.105	1.850
Sales growth	310	-0.900	9.821	0.169	0.048	0.838
ROA	310	-0.308	0.933	0.117	0.009	0.163
Net profit	310	-8661	512281.0	5799.3	1810.8	31882.4
ROS	310	-0.116	0.594	0.059	0.004	0.070
Total sales	310	67	23691510	516880	149226	2627395
Import ratio	310	0	100	17.680	1.896	33.382
Export ratio	310	0	100	5.284	0.811	14.283
Foreign ownership ratio	310	20	100	73.477	1.561	27.479
Shareholders	310	1	197954	3446.6	1045.2	18402.2
New graduate	310	0	380	12.200	2.308	40.636

As Table 3.3 shown there is a positive relationship between the number of foreign employees and net profit on 1 percent significant level. Thus, firms with greater number of foreign employees had greater profit as a proxy of performance. Therefore, it partially supports H1a hypothesis. The type of industry, including manufacturing and

services industries, has a positive relationship with import and export ratio on 1 and 5 percent significant, respectively. Thus, manufacturing firms were more intend to import and export activities in compare with services firms. Also, foreign ownership ratio is positively associated with import ratio ($p < 0.01$) and initial wage ($p < 0.01$), which implies firms with greater ratio of foreign ownership are more likely to have greater ratio of import and higher level of wage expenditure. Therefore, it is good support for hypothesis H7 in this study.

Table 3.4: Collinearity Statistics

Variables	Tolerance	VIF
Type of Industry	0.64	1.6
Foreign Manager	0.80	1.2
Foreign Employees	0.77	1.3
New graduate	0.59	1.7
Manager authority	0.90	1.1
Type of ownership	0.49	2.0
Shareholders	0.64	1.6
Foreign ownership ratio	0.45	2.2
Parent assets	0.23	3.3
Parent sales	0.23	3.4
Parent employees	0.36	2.8
Parent sales growth	0.93	1.1
Parent assets growth	0.88	1.1
Country of origin	0.90	1.1
Prior experiences	0.77	1.3
Initial wage	0.92	1.1
Employees	0.42	2.4
Total sales	0.70	1.4
Capital	0.60	1.7
Sales growth	0.91	1.1
Import ratio	0.75	1.3
Export ratio	0.86	1.2

As Table 3.4 shows, almost all correlations are low. In addition Tolerance and variance inflation factor (VIF) are examined to determine the existence of multicollinearity. The result of Collinearity test showed that all of the scores show that multicollinearity should not be a problem with these data. However, VIF is less than 3.4

showed no support for existence of multicollinearity.

To test the hypotheses, we ran separate regressions analyses. First, as Table 3.5 presents, we ran regression for three measures of firm's performance included return on assets, return on sales and net profit. The unit of analysis for this part is firm's performance based on financial data available over 2006. From the initial sample of 3500 foreign companies, the sample was reduced to 310 cases for analysis of performance. However, because of incomplete data for ROA, ROE and net profit used in this study, we used a final count of 310 foreign companies in Japan for the analysis of firm's performance. We divided the explanatory variables to five categories including industry, knowledge transfer, ownership, parent firm's factors and subsidiary's factors.

As shown in Table 3.5, the type of industry (manufacturing and services) has both positive ($p < 0.05$) and negative ($p < 0.01$) effects on ROA and ROS as performance factors, respectively. From the knowledge transfer variables, foreign employees ($p < 0.1$) and manager authority ($p < 0.05$) have positive relationship with return on sales as well as new graduate employee ($p < 0.01$) is positively related to net profit. Also there is no significant relationship between foreign manager and performance factors. However, they partially support hypothesis H1a in this study.

From the ownership variables, we found only a positive relationship between foreign ownership ratio and ROA on 5 percent significant level. It is good support for hypothesis H3. On the other hand, subsidiaries with greater ratio of foreign ownership are more likely to have greater performance. Ramaswamy et al. (1998) found that the relationship between ownership control and performance is curvilinear. Contrary to prevailing views that advocate an equal sharing of equity, performance was found to improve with increasingly unequal levels of ownership.

The result of regression shows parent's total assets ($p < 0.01$) and total sales ($p < 0.01$), as proxies of parent's size, are positively associated with ROA and ROS which support hypothesis H5 in this study. Also, the relationship between parent's assets growth and performance is positive with 5 percent significant level. It is a limited support for hypothesis H4b in this study. Subsidiary's total sales and capital as control variables have positive relationship with return on assets on 5 percent significant level. Also, capital and total sales as proxies of subsidiary's size have effects on performance. Somewhat surprising, significant negative relationship ($p < 0.01$) has been found between subsidiary's total sales and net profit. Some of the variables including new graduate employee, manager authority, parent assets growth and the number of employees were associated with only one of dimension of performance (ROA, ROS or net profit) providing only limited support for H1a, H3 and H4b hypotheses.

Our findings do not found support for hypothesis H4a. The relationship between performance and country of origin or cultural distance has been discussed by the previous literatures particularly in context of the inherent instabilities of international joint ventures. Our findings do not provide support for either of the positions (positive or negative). Therefore, the evidence remains inconclusive. Pangarkar and Lim (2003) and Demirbag et al. (2007) reached a similar conclusion, although other studies have found a negative association between cultural distance and performance (Li and Guisinger, 1991; Uhlenbruck, 2004)

Table 3.5: Regression results of performance variables

<i>Variables</i>	<i>Performance</i>		
	ROA	ROS	Net Profit
1-Industry;			
Type of industry	.103*(1.497)	-.166**(-1.943)	.113(1.142)
2-Knowledge transfer;			
Foreign manager	-.034(-0.597)	-.007(-0.104)	-.018(-0.228)
Foreign employees	-.170**(-2.017)	.154*(1.447)	-.100(-0.817)
New graduate	-.011(-1.133)	-.056(-0.523)	.329***(-2.692)
Manager authority	.008(0.131)	.122**(-1.700)	.044(0.526)
3-Ownership;			
Type of ownership	-.120(-1.294)	-.006(-0.049)	.068(0.511)
Number of shareholders	.018(0.288)	-.055(-0.714)	-.007(-1.077)
Foreign ownership ratio	.180**(-2.098)	-.098(-0.895)	-.071(-0.564)
4-Parent firm-specific;			
Parent assets	-1.422***(-9.186)	1.227***(-5.165)	-.067(-0.218)
Parent sales	1.521***(-8.003)	.262***(-2.933)	.127(0.358)
Parent employees	.008(0.079)	-.060(-0.494)	.136(0.983)
Parent sales growth	-.011(-0.183)	-.145(-1.932)	.108(1.250)
Parent assets growth	.115**(-1.892)	.013(0.172)	.033(0.377)
Country of origin	.014(0.233)	-.016(-0.222)	.092(1.104)
Experience in host country	-.031(-0.466)	-.166(-1.943)	-.079(-0.840)
5-Subsidiary firm-specific;			
Initial wage	.054(0.973)	-.006(-0.090)	.079(0.993)
Employees	.014(0.151)	.049(0.428)	.227*(1.753)
Sales	.147**(-2.439)	-.133(-1.261)	-.272***(-3.266)
Capital	.197**(-2.343)	-.197(-1.846)	.235**(-1.903)
Sales growth	-.010(-0.172)	.068(0.966)	.062(0.777)
Import ratio	-.095(1.306)	.108(1.176)	-.119(-1.132)
Export ratio	-.177***(-2.935)	.148(1.904)	.033(0.913)
<i>Constant</i>	(-2.137)**	(1.826)*	(-2.082)**
Number of cases	310	310	310
R²	0.768	0.634	0.533
Adjusted R²	0.707	0.537	0.404
df	24	24	25
F statistic	12.563***	6.559***	4.112***

* Significant to 0.1. ** Significant to 0.05. *** Significant to 0.01.

Note: the numbers in parenthesis are t value.

Table 3.6: Regression results of type of ownership and equity ownership

<i>Variables</i>	<i>Type of Ownership</i>		<i>Equity Ownership</i>					
			<i>Majority-owned</i>		<i>Co-owned</i>		<i>Minority-owned</i>	
INDTRY	-.918	1.215	-.375	.248	1.401	2.182	-0.059	.044
F_MNGR	-.900***	7.584	-.719*	3.436	1.172**	4.564	.234	0.157
F_EMPLY	.060	.375	.234	1.341	-.167	.615	-0.247	.107
N_GRAD	-.387**	7.076	-.278**	6.002	.449***	8.440	0.234	.386
MNGR_A	.645	.955	-1.364*	2.593	1.999*	3.107	0.279	.214
SHAR_H	-0.001**	7.290	-0.002**	6.588	-0.001	.657	0.001**	10.313
P_ASSET	.252*	2.371	.091	.260	-.107	.290	1.521	.051
P_SALS	1.256	.605	1.449	.716	-.001	.277	1.748	.095
P_EMPLY	3.101*	2.827	3.678*	2.552	-0.001**	4.614	1.828	.462
P_SLSGR	-4.853**	5.869	-3.034*	2.778	3.637*	3.044	-0.001	.029
P_ASSTG	4.336**	4.798	1.526	.568	-1.411	.368	0.412	.070
CNTRY	.139	.161	.161	.206	-.362	.763	0.303	.176
EXPRNC	-.002	.016	-.020	.599	.058**	3.101	0.004	1.875
I_WAGE	-0.001	1.456	5.684	.144	1.496	.751	-0.229	.819
EMPLYE	.001	.611	.006**	4.136	-0.009**	5.850	-0.01	.097
SALES	2.602	.044	-0.002	.344	1.216	1.080	0.001	.059
CAPTL	-.193	.756	-.166	.522	.244	.819	1.828	.046
SALSGR	-.352	.081	1.184	.528	-1.225	.353	0.011	.695
IMPORT	.028***	13.345	.022***	7.515	-.022**	5.995	-0.004	.016
EXPORT	.026*	3.242	.004	.073	-.004	.064	-1.909**	2.836
Constant	6.779	.030	38.637	.580	-21.637*	3.311	0.214	1.545
<i>Cases</i>	310		310		310		310	
<i>Chi-square</i>	49.715***		31.266**		37.047***		37.408***	
<i>-2Log likelihood</i>	111.096		99.195		81.231		3.814	
<i>Cox & Snell R²</i>	0.349		0.236		0.273		0.276	
<i>Nagelkerke R²</i>	0.465		0.350		0.428		0.922	

* Significant to 0.1. ** Significant to 0.05. *** Significant to 0.01.

Notes: 1. Numbers in right sides are Wald Statistics. 2. Majority-owned are subsidiaries that have greater than 50 percent equity and exclude 100 percent equity ownership. INDTRY, type of industry (manufacturing and services); F_MNGR, foreign manager; F_EMPLY, foreign employees; N_GRAD, new graduate; MNGR_A, manager authority; SHAR_H, the number of shareholders; P_ASSET, total assets of parent company; P_SALS, parent company total sales; P_EMPLY, the number of parent company's employees; P_SLSGR, parent company sales growth ratio; P_ASSTG, parent company assets growth ratio; CNTRY, country of origin; EXPRNC, parent's experience in host country; I_WAGE, the amount of initial wage in subsidiary; EMPLYE, the number of subsidiary's employee; SALES,

subsidiary total sales; CAPTL, subsidiary's capital; SALSGR, subsidiary sales growth ratio; IMPORT, import ratio of subsidiary; EXPORT, export ratio of subsidiary.

In the second step of analysis, we used binary logistic regression, as reported in Table 3.6, in order to explore the influence of the independent variables and control variable on the likelihood of either a wholly owned subsidiary or international joint venture and equity ownership (majority-owned, co-owned and minority-owned), we conducted a binary logistic regression analysis. We conducted a logistic regression analysis, which is suitable given the dichotomous characteristic of the dependent variable, and the mix of continuous and categorical independent variables we use (Hair et al., 1995; Dikova and Witteloostuijn, 2007). Before performing the moderations of the ownership variables with a number of independent variables, all predictors were centered to avoid potential multicollinearity problems.

As Table 3.6 presents, foreign manager (F_MNGR) and new graduate (N_GRAD) are negatively associated with type of ownership ($p < 0.01$ and $p < 0.05$ respectively) and minority-owned subsidiary ($p < 0.1$). Further, both have positive coefficient with co-owned subsidiary ($p < 0.05$ and $p < 0.01$ respectively). Therefore, as we expected, parent firms preferred to have a foreign manager for affiliates, when a subsidiary is wholly-owned and majority-owned. Thus, it supports hypothesis related to foreign manager (H2). We found only a positive relationship between prior experiences in host country (EXPRNC) and co-owned subsidiary on 5 percent significant level. However, our findings do not support hypothesis H4c in this study. Parent sales growth (P_SLSGR) is negatively associated with type of ownership and majority-owned subsidiary on 5 and 10 percent significant level, respectively and has a positive relationship with co-owned equity of ownership.

Based on Table 3.6, parent's employees (P_EMPLY) as a proxy of size of parent

company has positive relationship with type of ownership (wholly-owned and international joint venture) and majority owned subsidiaries on 1 percent significant level. Consequently, it implies that parent company with greater size preferred to enter as majority-owned and wholly owned subsidiaries. The import ratio (IMPORT) is positively associated with type of ownership and majority-owned subsidiary on 1 percent significant level. However, it partially supports hypothesis H7. In the other hand, wholly owned subsidiary and international joint venture with majority owned subsidiary, have a greater ratio of import. As the results in Table 3.6 shows, export ratio (EXPORT) is negatively associated ($p < 0.05$) with minority-owned equity ownership..

Table 3.7: Regression models for foreign ownership ratio

<i>Independent Variables;</i>	<i>Foreign Ownership Ratio</i>					
	Model 1		Model 2		Model 3	
<i>Constant</i>	*	(-1.672)		(0.572)		(-1.455)
Number of shareholders	-.204**	(-2.318)			-.235**	(-2.724)
Import ratio	.431***	(4.495)			.379***	(3.725)
Export ratio	.082	(0.808)			-.251**	(-2.048)
Initial wage	.100	(1.065)			.010	(0.084)
Manager authority			-.018	(0.186)	.586***	(6.071)
Foreign manager			-.307***	(-3.089)	-.163	(-1.169)
Foreign employees			.058	(0.538)	3.278***	(3.284)
New graduate employees			.236	(1.191)	-1.170***	(-4.582)
<i>Control Variables;</i>						
Capital	.385**	(2.322)	-.048	(-0.425)	.584***	(3.900)
Number of employees	-.353**	(-2.268)	-.415**	(-1.996)	.821***	(3.466)
Total Sales	-.037	(-0.346)	.072	(0.626)	-3.322***	(-3.618)
<i>R</i> ²	0.365		0.183		0.856	
Adjusted <i>R</i> ²	0.314		0.121		0.787	
<i>df</i>	7		7		11	
<i>F</i> statistic	7.159***		2.975**		12.431***	
Number of Cases	3500		3500		3500	

* Significant to 0.1. ** Significant to 0.05. *** Significant to 0.01.

Note: The dependent variable is foreign ownership ratio for all three models.

The third step of analyses (Table 3.7) tested three regression models. First in the Model 1, subsidiary's factors including control variables were regressed on foreign ownership ratio. Second, in Model 2, we added the knowledge transfer factors to the control variables already in model 1 were regressed on foreign ownership ratio. Third, Model 3 illustrates the adapted regression for the all full sample including knowledge transfer variables, subsidiary's factors and control variables.

As the dependent variable in these models is the ratio of foreign ownership and it

may not have a normal distribution, we applied a normal score of foreign ownership ratio through using Blom's Formula. Table 3.7 presents, the number of shareholders in Model 1 and 3 are negatively ($\beta = -0.235$, $p < 0.05$) associated with foreign ownership ratio. Kim et al., 2007 studied that when a public firm's ownership is concentrated into the hands of a few large shareholders, then these large shareholders should have both the intensive and the power to monitor the firm's operations and management effectively. However, while the large shareholder enjoys returns for its monitoring efforts, it also suffers some cost.

Import ratio both in Model 1 and Model 2 has a positive relationship with foreign ownership ratio on 1 percent significant level. Consequently, there is relatively strong support for H7 with respect to majority equity ownership. As we expected, the results shows that export ratio is negatively ($\beta = -0.251$, $p < 0.05$) associated with the ratio of foreign ownership, supporting our hypothesis H7 in this study. In other words, firms with smaller ratio of foreign ownership and minority owned are more likely to have greater ratio of export. Consequently, when the subsidiary is export-oriented, parent firms preferred to have minority owned subsidiary and limited ratio of ownership.

According to regression results of Model 3, manager authority and the number of foreign employees have positive significant relationship with the ratio of foreign ownership on 1 percent significant level. Thus, they partially support hypothesis H1b. Contrary to our expectation, new graduate is negatively associated with the ratio of foreign ownership. Finally, based on the results, all control variables have been affected on dependent variable (foreign ownership ratio). Also, based on hypothesis H6, the number of employees and capital as proxies of subsidiary's size, are positively associated with foreign ownership ratio. Consequently, the multinational companies preferred to own a greater ratio of equity ownership for larger subsidiaries.

3.5. Conclusion and limitations

This empirical study has explored the determination of factors influencing ownership and performance of foreign affiliates in Japan. Findings in this study support the hypothesis that multinational companies preferred to enter as wholly-owned subsidiary in Japanese market.

Our findings offer a number of contributions to the literature. First, consonant with Demirbag et al. (2007), we adopt an integrative approach, which incorporates knowledge transfer factors, parent firm and subsidiary's variables. Second, we employ a multidimensional measure of performance which enables us to examine subsidiary performance determinants at different views. Third, our findings reveal that impacts of explanatory variables are different on various dimensions of performance. Fourth, our results demonstrate a positive relationship between foreign ownership and some of knowledge transfer factors.

The results on the impact of knowledge transfer and development appear a partially support for our hypotheses. Our findings suggest that manager authority and the number of foreign employees as proxies of knowledge transfer are positively associated with equity ownership. In other words, foreign affiliates in Japan with higher level of foreign ownership are more likely to have higher level of management authority and greater number of foreign employees. Therefore, firms with higher levels of ownership control by MNCs (parent companies) are more likely to share and transfer the knowledge.

Our findings indicate that the size of parent company has impact on subsidiary's performance. However, larger multinational companies had better returns on sales and assets in Japan. As the study of Pradeep and Chhibber (1999) showed, after controlling

for a variety of firm and environment-specific factors, only when property rights devolve to foreign owners, at ownership levels providing unambiguous control at 51 percent, do firms in which there is foreign ownership display relatively superior performance. In case of ROA, we found limited support that parent firm performance has effect on subsidiary's performance. The results shown subsidiaries with greater ratio of foreign ownership had greater returns on assets. Several studies hold that since the entry strategies have specific resource and organizational control demands, the performance of a subsidiary will depend on the selected entry strategies. However, while a study by Vermeulen and Barkema (2001) agrees with the proposition that the entry modes are related to specific levels of resource commitment and levels of control, it does not correspond with the proposition that performance will be directly determined by the selected entry mode.

Contrary to our expectations, country of origin did not affect any of performance dimensions which are consistent with Pangarkar and Lim (2003) and Demirbag et al. (2007). Also, our findings indicate that foreign manager and parent's experience in host country, did not impact on subsidiary performance. Our findings imply that larger foreign affiliates have greater performance in Japanese markets. The evidence demonstrates a negative relationship between export ratio and one dimension of performance. Consequently, export oriented firms may not exhibit excellent performance in Japan which is a developed country.

The present study holds that both ownership and performance attained by the subsidiary are a direct consequence of the possession or lack of advantages of the parent firms and the subsidiary itself. Consequently, if a parent company possesses enough advantages to overcome the resource commitment and the managerial control costs, it will probably be able to transfer enough capabilities including knowledge to its

subsidiary in order to make it generate high performance as well. The evidence provided in this study partly supports the arguments that ownership and parent firm factors may have impact on firm performance. Still, companies that venture through cross-border activities do not always improve their financial performance. This may happen because the integration of acquired firms is time-consuming (Jemison and Sitkin, 1986) and can disrupt the operations of both acquiring and acquired companies (Ahuja and Katila, 2001). Zahra and Hayton (2008) argue that technological knowledge is also usually grounded in national cultures and traditions, inhibiting the transfer of this knowledge. Thus, organizational learning plays a key role in the success of foreign ownerships.

The results demonstrate that wholly owned subsidiaries and firms with greater ratio of ownership have superior import ratio. However, MNCs preferred to enter and hold minority equity of ownership when a subsidiary is export oriented firms. Size of subsidiary had positive impact on foreign ownership. In other words, parent companies preferred to own more equity ownership for large size subsidiaries. Finally, our findings suggest that firms with greater ratio of foreign ownership are supposed to have managers with higher proportion of authority and greater number of foreign employees.

This study is subject to some limitations related to its validity and scope. First, since the study covers foreign affiliates in Japan. The recent studies found stark differences in the characteristics and performance of investment between developed and less developed countries (Makino et al., 2004). Secondly, some of the factors examined in this study may interact with each other. For instance, returns on sales and net profit are both elements of profitability. Also, type of ownership (wholly owned subsidiary, international joint venture) and equity ownership are both elements of ownership advantages. When these elements are integrated, they may exert more significant results for ownership and performance. Thirdly, we employed limited number of variables

including manager authority, foreign manager and foreign employees as proxies for knowledge transfer and development. Measuring knowledge transfer through these factors may be criticized, as it does not capture location and industry factors. Future studies that use different dimensions to measure knowledge transfer can add to this study in order to improve the validity of related findings.

**The previous chapter presented that parent firm's factors have effect on subsidiary's performance. We found that some of the knowledge transfer factors have positive relationship with foreign ownership ratio. Also export oriented firms may not exhibit excellent performance in Japan. In this chapter, we examine the effects of firm factors and equity ownership on asset growth ratio as a proxy of performance.*

Chapter 4

Type of industry and impact of firm specific factors on the assets growth in multinational companies

4.1. Introduction

The multinational company has several choices of entry mode, ranking from the market (arm's length transactions) to the hierarchy (wholly owned subsidiary). The multinational companies (MNCs) choose internalization where the market does not exist or functions poorly so that transactions expenses of the external route are high. The subsistence of a particular know-how or core ability is an asset that can give rise to economic rents for the firm. These rents can be earned by licensing the firm specific advantages to another firm, exporting products using these firm specific advantages as an input, or adjustment subsidiaries abroad.

Considerable research efforts have been made to test the importance of firm specific versus industry structure factors in relation to performance variation (e.g. Hawawini et al., 2003; Roquebert et al., 1996). Generally, the effects of firm factors on performance variability have been shown to be more important than industry effects.

Building upon previous research, the present study investigates the firm specific factor versus industry structure. However, a decidedly different approach is taken. First, the vast majority of foreign firms in Japan come from the United States and Europe. Second, there are very few researches that used the asset growth for performance appraisals. Third, we build hypotheses to test key aspects of the firm's factor theories in the stream. Fourth, parent's firm factors and subsidiary factors are operationalized and measured to determine their effects on the asset growth ratio. Lastly, manufacturing versus services firms are compared, which, surprisingly, has rarely been done.

Asset performance means that a company can either earn a higher return using the same amount of assets or is efficient enough to create the same amount of return using

fewer assets.

Hymer (1976) proposed that firms exist because they possess unique assets in terms of products, processes, and skills. Examples of unique firm-specific assets and intangible wealth include established brand names, the firm's reputation, favored access to suppliers and skilled manpower, and superior products and processes. These resources, when employed in a host country during overseas entry, serve to reduce rivalry, as they are imperfectly imitable. The poor imitability of these unique assets enables a firm to gain competitive advantage or market power over its rivals. Hence, the foreign entrant can be viewed as a special case of the multi-plant firm operating in different countries due to market imperfections (Horaguchi and Toyne, 1990). Such firms integrate industries by owning assets or controlling activities across countries as a result of structural market imperfections and transaction cost advantages

Nevertheless, foreign firms are likely to be at a disadvantage in terms of understanding the local environment and culture. The international business literature is full of examples of foreign entrants stumbling and failing due to lack of managerial skills or knowledge of local contacts, regulatory issues, political nuances, customer idiosyncrasies, and other issues usually unknown to new foreign entrants. These disadvantages are commonly referred to as liabilities of foreignness.

This empirical study explores first the relationship between type of industry and firm's factors including ownership, experience, import and export ratio and MNCs' factors. Second, we examined the impact of country of origin, foreign ownership and parent's and subsidiary's factors on the asset growth ratio (AGR).

The rest of the paper is structured as follows. We begin with a review of the literature, and then develop five testable hypotheses relevant to the industry structure and asset growth. Next, we describe the data and estimation methodology, and report

the empirical results. We conclude with a discussion of the results..

4.2. Theoretical background and hypotheses

Firms seeking to establish a presence in the region also faced the decision of how much equity to commit. Empirical studies using cross-country data show that locational and modes of entry choices of MNEs are significantly influenced by host country characteristics. For example, Altomonte (2000) and Bevan and Estrin (2004) use project-specific investment data primarily from European firms, as well as some Asian and US MNEs, to analyze the determinants of foreign direct investment to the region. In addition to factors such as country risk and market size, Tihanyi, Griffith, and Russell (2005) highlight gravity factors and cultural distance as important components of investment decision. For US firms, advantages such as geographical and cultural proximity are less apparent than for their European counterparts. Yet analyses of market response to early investment announcements by US firms (e.g., Lang & Ofek, 1995) find that, on average, shareholders of US firms experience positive excess returns when they announce expansion plans in transition economies. ((Paul and Wooster, 2008))

Eclectic theory suggests that in developed countries, wholly owned subsidiaries have the highest long-term potential (Dunning, J.H., 1988). Erramilli et al. (1997) found that even the firm-specific advantages of Korean MNEs were dependent on host country location. Therefore, the influence of host country characteristics on entry mode, of which industry structure is an underlying element, is well established.

Previous research suggests that a firm's capacity to earn profits is highly correlated to the attractiveness and profitability of the industry in which the firm operates (Schmalensee, 1989). Hence, when entering an overseas market, a foreign firm will attempt to choose an entry mode that would help overcome industry barriers that might

prevent it from succeeding in that overseas market. Therefore, other conditions remaining equal, one would predict that industry characteristics of the host country would play a role in determining a firm's choice of entry mode (Elango & Sambharya, 2004).

4.2.1. Industry and firms factors

An important benefit of wholly owned is that a foreign firm can be in control of an established firm, thereby overcoming industry structural barriers in the host country and the liabilities of foreignness rather quickly. Also wholly owned does not create new industry capacity, as do greenfield investments, and therefore does not increase industry supply. Wholly owned subsidiaries by the foreign firm result in ownership by a single firm. An international joint venture is a partnership wherein the venture (business) is jointly owned by two or more firms. It involves two or more firms investing in or sharing resources, thereby allowing for some degree of flexibility in the sourcing and deployment of resources to overcome industry barriers and minimizing the risks of liabilities of foreignness. While it is hard to accurately predict the influence of a joint venture on industry supply, joint ventures allow for risk pooling, thereby enabling the entrant to more effectively face industry structural barriers and risks due to liabilities of foreignness.

Previous research suggests that a firm's capacity to earn profits is highly correlated to the attractiveness and profitability of the industry in which the firm operates (Elango & Sambharya, 2004). Another notable study was by Caves and Mehra (1986), who looked at 138 entry decisions of foreign firms and considering many industry variables along with firm level variables. The two modes they looked at were mergers and greenfield entrants while controlling for joint ventures. They concluded by claiming that

the type of goods produced (durable vs. nondurable), firm size, product diversity, and the extent of multi-nationality were likely predictors of acquisition as preferred entry mode, depending on the industry structure.((Elango et., 2004))

H1. *Multinational companies in manufacturing industry are more likely to enter a host market through wholly owned subsidiaries.*

Companies in different industries face different competitive challenges, causing them to use different approaches to international venturing. When the MNC is diversifying through a FDI, uncertainty and information costs may be higher, so that less control ownership modes should be preferred. Foreign investors are also more likely to enter a foreign market through joint ventures or strategic alliances if they are diversifying into a different industry, as they need tacit industry-specific knowledge, which is subject to relevant transaction costs and it also costly to acquire on the market (Mutinelli & Piscitello, 1998)

Hence, when entering an overseas market, a foreign firm will attempt to choose an equity ownership that would help overcome industry barriers that might prevent it from succeeding in that overseas market. Therefore, other conditions remaining equal, one would predict that industry characteristics of the host country would play a role in determining a firm's choice of entry mode.(Elango & Sambharya, 2004)

H2a. *Foreign companies in manufacturing industry are more likely to have a greater number of foreign employees than services industry.*

A common barrier to entry in manufacturing industries is scale economies. Scale economies refer to the need to build a plant at a particular size to produce goods at a reasonable cost. Stated differently, this concept refers to the change in operational costs associated with the change in size of the firm. According to Porter (1980), scale economies arise due to the ability of the firm to perform value activities efficiently at a

larger volume. Scale economies result from less than proportional increases in costs or increased efficiencies in operation associated with particular levels of production volume.

Multinational companies need to use their technical employees or expert managers in order to build a manufacturing subsidiary in a host country. Manufacturing firms in subsidiary level are encouraged to hire a number of parent company's employees in order to technology transfer and employee training. MNCs build a manufacturing firm and invest in a host market to producing high demanded products in host market or goods with lower production costs.

When plants are built to scale, the production costs of goods are lowest when operated at capacity (Harrigan, 1981 and Scherer, 1980). Industries characterized by a manufacturing structure have significant barriers to entry, as entrants are forced to make significant investments to enter the industry at a particular size. Second, new entrants could face a strong competitive reaction from existing incumbents due to these firms' sunk costs. Third, the creation of new capacity in such industries would hurt all firms, including the entrant. In manufacturing industries, entrance through wholly owned or joint ventures can significantly minimize risk. Therefore, the presence of manufacturing industry requires large investments to be made by the foreign firm, encouraging firms to enter foreign markets through joint ventures or wholly owned subsidiary.

To the best of our knowledge, no study on ownership and foreign investment has incorporated this important explanatory variable.

H2b. *Foreign companies in manufacturing industry are more likely to have greater ratio of import.*

Elango & Sambharya (2004) argue that in industries characterized by import intensity, firms are likely to prefer wholly owned ownership as an entry strategy.

The influence of import on industry profitability and firm behavior is well known in the literature (e.g., Cubbin and Geroski, 1987 and Turner, 1980). Though this variable has not been specifically tested in the entry mode literature, other studies on this topic (e.g., Caves and Mehra, 1986; Porter, 1986) have incorporated import market share in other variables (such as industry concentration) in entry mode models⁴. As this study focuses on type of industry, we decided to test the relationship between the import ratio and industry characteristics. In industries with high levels of import, foreign entrants are likely to use greenfield operations as a favored mode of entry over wholly owned or joint ventures. This will happen because foreign entrants might be more confident in succeeding by setting up operations on their own, considering the fact that they or other foreign firms have had some degree of success selling their products in the host nation (Elango & Sambharya, 2004)

4.2.2. Asset growth

Asset is a business's ability to take productive resources and manage them within its operations to produce subsequent returns. Asset performance is typically used to compare one company's performance over time or against its competition. Possessing strong asset performance is one of the criteria for determining whether a company is considered a good investment.

⁴ The empirical evidence of short and medium-term impact of foreign investment on exports is mixed. For example, in the case of certain newly industrialized Asian markets such as Chinese Taipei, Singapore, Hong Kong and Malaysia, the consensus seems to be that MNCs have played an important role in exports growth (e.g. Kumar, 1996). Moreover, studies of the determinants of FDI location in developing countries indicate that main driving factor is the ease with which enterprises located in the host market can participate in international trade (Sing and Jun, 1995, and Kokko et al., 2001). However, broader-based empirical studies generally yield mixed results regarding the role of MNCs in expanding the exports of developing countries (Dunning, 1993 and Sharma, 2000).

Analysts use metrics like the cash conversion cycle, the return on assets ratio and the fixed asset turnover ratio to compare and assess a company's annual asset performance (asset growth). Typically, an improvement in asset performance means that a company can either earn a higher return using the same amount of assets or is efficient enough to create the same amount of return using fewer assets.

Hennart and Reddy (1997) reported that joint ventures would be preferred by firms in instances where non-desirable assets are linked with desirable assets, when the Japanese firm has previous experience, when there is good product compatibility, and where there is a growing market. Although these studies found support for the notion that industry structure influences the equity ownership choice of firms, they only used two variables or less to capture that effect.

The ownership advantage explains a firm's resource commitment and refers to assets power that a firm must possess to compete successfully with host country firms in their own markets, which can be tangible and intangible such as firm size, multinational experience, proprietary products or technologies, specialized know-how, and skills by its ability to innovate or to develop differentiated products, (Dunning, 1995 and Nitsch et al., 1996). The size of parent's firm reflects its capability for absorption of the high costs of marketing, for enforcing patents and contracts, and for achieving economies of scale in foreign markets. Empirical evidence indicates that the impact of firm size on FDI is positive (Cho, 1985 and Kimura, 1989). Another form of asset power, a firm's level of multinational experience, has also been shown to influence entry choices (Agarwal and Ramaswami, 1992) and performance (Siripaisalpipat and Hoshino, 2000). As a firm expands its operations overseas, it learns more about how to cope with different environment in terms of economic, political, and legal systems as well as the cultural distances. This ownership advantage generated corporate performance (Delios

and Beamish, 1999 and Gomes and Ramaswamy, 1999), and consequently reflected on subsidiaries performance. Finally, intangible assets are necessary to compete efficiently in a certain business line or a given industry (Siripaisalpipat and Hoshino, 2000). A firm will enjoy competitive advantages over its rival if it owns a proprietary product, specialized technology or knowledge, specific know-how, and management capabilities (Kimura and Pugel, 1995).

H3. The greater the ratio of sales growth in MNCs, the greater ratio of asset growth will increase.

The above hypothesis, in the other words, assumes that the MNCs' sales growth ratio has significantly impact on the ratio of asset growth.

One of the measurements for performance appraisal is the rate of sales growth. We assume that the ratio of asset growth is related to its sales growth rate. In other word, the increase of sales growth has effect on the ratio of asset growth.

Hymer (1976) proposed that firms exist because they possess unique assets in terms of products, processes, and skills. Examples of unique firm-specific assets and intangible wealth include established brand names, the firm's reputation, favored access to suppliers and skilled manpower, and superior products and processes. These resources, when employed in a host country during overseas entry, serve to reduce rivalry, as they are imperfectly imitable. The poor imitability of these unique assets enables a firm to gain competitive advantage or market power over its rivals. Hence, the foreign entrant can be viewed as a special case of the multi-plant firm operating in different countries due to market imperfections (Horaguchi and Toyne, 1990). Such firms integrate industries by owning assets or controlling activities across countries as a result of structural market imperfections and transaction cost advantages

Nevertheless, foreign firms are likely to be at a disadvantage in terms of

understanding the local environment and culture. The international business literature is full of examples of foreign entrants stumbling and failing due to lack of managerial skills or knowledge of local contacts, regulatory issues, political nuances, customer idiosyncrasies, and other issues usually unknown to new foreign entrants. These disadvantages are commonly referred to as liabilities of foreignness.

H4. Foreign companies with more experience in host country are more likely to have greater ratio of asset growth.

Experience in the host country may interact differentially in terms of performance (Delios & Beamish, 2004; Uhlenbruck, 2004, Rasouli et al., 2008). Brouthers et al. (2000) found a negative relationship between experience and performance, while Luo and Peng (1999) argued that experience leads country specific knowledge to overcome the liability of foreignness; as a result the firm's performance improves. Given that firms with longer experience are considered to enjoy greater experiential and tacit knowledge age is considered to provide a positive relationship with exports and capabilities.

Entry in foreign markets and the related uncertainty are also crucial for international neophytes which lack experience in managing foreign operations. The lack of international experience may cause the novice investor setting up a wholly owned subsidiary to take inappropriate decisions on matters such as the choice between producing certain inputs locally or importing them from the parent company, the location of plants in the foreign country, production levels, adaptation of products and services to local market requirements, management of relations with workforce, suppliers, customers, banks, local authorities (Mutinelli & Piscitello, 1998). The firms acquire increasing capabilities and knowledge about how to manage foreign operations and to correctly assess the risks and the expected economic returns of foreign investment. This is particularly true when the parent company already manages other

subsidiaries in that country or if it has entered before other countries which are culturally similar to the country being entered.

H5. Country of origin is significantly associated with the asset growth ratio.

It is worth mentioning the role of differences in the geographical spread of FDI. *Ceteris paribus*, high physical and psychological or socio-cultural distance between the parent's home country and the target country engenders high information needs because of the uncertainty perceived by executives and the problems in transferring values, management techniques and operating methods from the home to the host country (Mutinelli & Piscitello, 1998).

Eicher and Kang (2005) present a theoretical model of the multinational firm's optimal entry mode. They show that the choice between FDI, acquisition, or exports depends on host country characteristics such as market size, FDI fixed costs, tariff levels, and transportation costs. The authors argue that expansion through a sales presence is more likely when firms invest in smaller markets, but as tariffs and transportation costs rise, acquisitions and Greenfield investments (such as new plants and wholly owned subsidiaries) become more likely.

Eclectic theory suggests that in developed countries, wholly owned subsidiaries have the highest long-term potential (Dunning, 1988). Erramilli et al. (1997) found that even the firm-specific advantages of Korean MNEs were dependent on host country location. Therefore, the influence of host country characteristics on entry mode, of which industry structure is an underlying element, is well established.

4.3. Research design and methodology

The empirical study examines the relationship between the type of industry entered by MNCs to a host country and type of ownership, import ratio, firm's size and the

number of foreign employees. Also we examine the effect of experience in host country, foreign ownership and country of origin on the asset growth ratio (AGR).

4.3.1. Sample and data collection

The study focused on a broad set of foreign firms in Japan in the both the manufacturing and service industries. Manufacturing firms operated in industries such as food and beverages, textiles, wood and paper products, chemicals, printing and publishing, metal products, and machinery. Services firms operated in industries such as construction, wholesale trade, retail trade, transport and storage, and business services.

The primary data source for this study was derived from the Toyo Keizai Inc. Foreign Affiliated Companies in Japan: A Comprehensive Directory (Gaishikei Kigyō), which compiles information on the foreign subsidiaries in Japan that have been established by foreign companies across the world. The database includes subsidiaries in manufacturing and service industries. However, it includes a sample of three thousand and five hundred foreign subsidiaries established by MNCs from fifty two countries which covering the period till 2006. A summary of data distribution presented in Table 4.1 based on year of entry, equity ownership and country of origin. From the initial sample of foreign companies in Japan, because of missing data for some variables, the final sample size for the research analysis was reduced to 293 cases for the analysis of asset growth ratio and type of industry.

Table 4.1: Data distribution based on year of entry

Period	Equity Ownership			Country of Origin			
	No.	WOS	IJV	North America	Europe	Asia	Others
1903 - 1970	476 14%	207 43%	269 57%	217 46%	205 43%	35 7%	19 4%
1971 - 1980	471 13%	263 56%	208 44%	207 44%	201 43%	43 9%	20 4%
1981 - 1990	887 25%	527 59%	360 41%	403 45%	371 42%	86 10%	27 3%
1991 - 2000	1002 29%	673 67%	329 33%	460 46%	393 39%	113 11%	36 4%
2001 - 2006	664 19%	402 61%	262 39%	293 44%	242 36%	95 14%	34 5%
Total	3500 100%	2072 59%	1428 41%	1580 45%	1412 40%	372 11%	136 4%

As shown in Table 4.1, in the years between 1903 and 1970 the percentage of wholly-owned subsidiaries is 43% while the international joint venture is 57%. For the period of 1991 to 2000 and the last period (2001-2006), the percentage of wholly owned subsidiary, respectively with 67% and 61%, showed the multinational companies were interested in keeping a larger equity ownership of subsidiaries in Japanese market. It seems, MNCs were interested in enter as a wholly owned firm, based on the sample distribution. As the Table 4.1 shows, 85% of foreign companies in Japan come from North America (United State and Canada) and Europe with 45% (1580) and 40% (1412) respectively. Therefore, recently, multinational companies are more interested in holding the majority of equity of their subsidiaries in Japan as a developed country.

Figure 4.1: *The ownership of foreign companies in Japan based on period of entry*

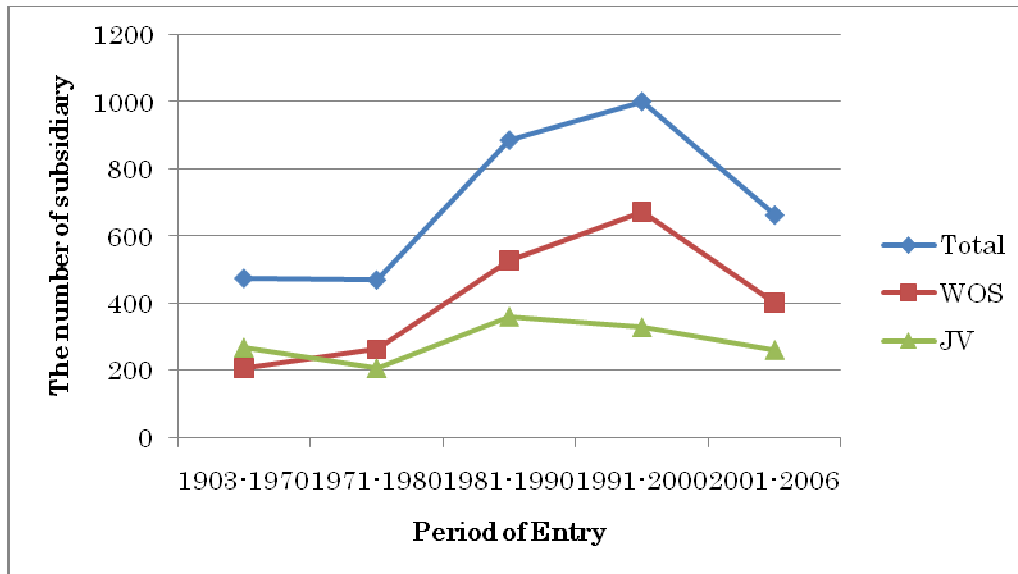


Figure 4.1 shows the trends of equity ownership in five periods of foreign investment in Japan till 2006 by multinational companies. As shown in Figure 4.1, the number of international joint venture companies have slump during recent periods. However, the majority of foreign companies are wholly owned subsidiaries. The wholly owned firms have dramatically increased from 1980s.

As the Table 2 shows, we find that the machinery industry (10.1%), Electronic & electrical equipment (9.5%), software (7.5%), Chemistry (7.4%) and the other manufacturing industry (9.7) have the higher percentage of foreign investment in Japan.

Table 4.2: *Data distribution based on type of industry*

Type of Industry	Number	Percentage
Agriculture	2	0.1%
Automobile	137	3.9%
Bank	128	3.7%
Chemistry	259	7.4%
Construction	17	0.5%
Consulting	155	4.4%
Electronic & electrical equipment	331	9.5%
Finance, insurance & real state	179	5.1%
Food products	128	3.7%
Information service	171	4.9%
Machinery	355	10.1%
Medical equipment & supply	151	4.3%
Other manufacturing	340	9.7%
Petroleum	23	0.7%
Primary & fabricated metals	104	3.0%
Publication	29	0.8%
Retail industry	99	2.8%
Services	252	7.2%
Software	264	7.5%
Steel	6	0.2%
Transportation	150	4.3%
Wholesale trade	220	6.3%
Total	3500	100.0%

4.3.2. Description and measurement of variables

4.3.2.1. *Dependent variables*

Zahra (1991) indicates that companies in different industries face different competitive challenges, causing them to use different approaches to international venturing. The payoff from international venturing might vary also by industry type.

For this study we used two dependent variables. First, the type of industry which is dummy variable coding a value of 1 for manufacturing firms and 0 for the services firms. The second dependent variable is asset growth ratio was measured by the ratio of average increase in firm's total asset of five years leading to 2006.

4.3.2.2. Independent variables

In this study we measured the independent variables as follows:

The first variable is the experience in host country. As in Makino and Delios (1996) and Delios and Beamish (2001), we use the parent company's experience in the host country which is computed as the total number of firm-years of experience in the host country for one foreign investment.

Type of ownership: in this study, we divided the ownership in two categories and used a dummy variable; a subsidiary is considered to be wholly owned and coded 1 if has 100 percent ownership and otherwise coded 0 as an international joint venture.

The existence of foreign manager is a dummy variable that takes a value of 1 if the subsidiary's manager is Japanese and 0 otherwise. Foreign employee was measured by the number of non Japanese employees in subsidiary. The subsidiary's intensity of foreign employment is the ratio of foreign employees to total number of employees for each subsidiary. New graduate is the number of new graduate employees in a foreign company.

The variable for the country of origin categorized in four regional categories including United State and Canada, Europe, Asia and others based on our data distribution and countries location. It was measured by using a dummy variable for each category which takes the value from 1 if the nationality of foreign company is in the category and otherwise 0.

Several measures have been used by researcher to proxy for firm size, e.g., total assets (Yu and Ito, 1988), equity (Cho, 1985), exportation sales and total sales (Kimura, 1989; Agarwal and Ramaswami, 1992) expenditure in R&D (Makino and Delios, 1996) and number of employees (Demirbag et al., 2007, Rasouli and Hoshino, 2007). However, a previous test on the current sample shows that these variables have a high degree of correlation. Because of that, the amount of total assets, sales and parent's employee, were chosen as the indicators of firm size.

We employed parent's sales growth ratio which is the average of five years growth rate of parent company's total sales. Import ratio and export ratio variables are determined by the ratio of the amount of import and export from affiliated company.

4.3.2.3. Control variables

To segregate the effect of firms specific factor on AGR, we incorporated five control variables into the regression model: three at the subsidiary level and two at the parent firm level. At the subsidiary level, we incorporated capital, gross sales, and the number of employees based on a review of firm variables studied in the foreign investment literature (e.g., Harzing, 2002; Kwon and Konopa, 1992). At the parent's firm level, we incorporated parent's employee and parent's gross sales as control variables based on past research (Hennart and Larimo, 1997). Needless to say, these five variables represent important firm specific advantages and would play a part in influencing foreign firms' factors towards a greater asset growth. Therefore, they need to be controlled in hypothesis testing.

In light of the controversy involving the defining criterion for different sizes, all control variables in this study can be used as the proxies for the firm's size.

The rationale for the inclusion of firm size is that larger firms are likely to have

greater resources and ability to absorb higher risk compared to smaller firms, thereby influencing asset performance differentially.

Since the distribution of monetary values usually do not follow the normal distribution curve, the use of natural logarithm of the quantity is applied for firm's gross sales and total assets, parent and subsidiary's employees and capital; to smooth the values and to bring them closer to the normal distribution as well as to avoid spurious effect.

Table 4.3: *Data variables and definition*

Sign	Variable name	Variable definition
EXPRNC	Experience in host market	The number of firm-years of experience in the host country
WOS_IJV	Type of ownership	Wholly owned subsidiary (1) and International joint venture (0)
IMPORT	Import ratio	The ratio of import in a foreign company
EXPORT	Export ratio	The ratio of export in a foreign company
F_EMPLY	Foreign employee	The number of foreign employees working in a subsidiary
N_GRAD	New graduate	The number of new graduates in a subsidiary
EMPLYE	Employee	The number of employee in a subsidiary
P_EMPLY	Parent's employees	The number of employee in parent company
F_MNGR	Foreign manager	Manager nationality of subsidiary (Japanese 1 and otherwise 0)
P_SALS	Parent's sales	Gross sales of parent company
P_ASSET	Parent's asset	Total assets of parent company
CAPTL	Capital	The amount of capital of subsidiary

Table 4.3 shows the name of independent variables used in this study and we have explained shortly about each variable's definition.

4.4. Empirical analysis and discussion

As a preliminary step, Table 4.4 shows a descriptive statistics of variables and the correlations of all the variables in the regression models are reported in Table 4.5. the results of Collinearity statistics are shown in Table 4.6 which there is no support of

existence of multicollinearity in the variables of this study.

Table 4.4: *Descriptive Statistics*

<i>Variables</i>	<i>N</i>	<i>Min.</i>	<i>Max.</i>	<i>Mean</i>	<i>Std. Deviation</i>
Experiences in host market	293	1.6	97.9	30.027	17.182
Type of Industry	293	0	1	0.642	0.480
Capital	293	10	385000	7958.809	31026.799
Type of Ownership	293	0	1	0.471	0.500
Europe	293	0	1	0.403	0.491
Asia	293	0	1	0.089	0.285
Others	293	0	1	0.058	0.234
Import ratio	293	0	100	43.157	40.307
Export ratio	293	0	100	5.621	14.634
Employees	293	0	14413	580.259	1318.200
New graduate	293	0	380	10.014	34.852
Foreign Manager	293	0	1	0.768	0.423
Asset Growth Ratio	293	-0.64	0.87	0.123	0.181
Parent's Sales	293	22	370998	33702.321	75563.101
Parent's Sales Growth	293	-0.91	32.34	0.233	1.903
Parent's Employees	293	50	506000	63204.519	97729.944
Foreign Employees	293	0	102	2.645	8.242

Table 4.5: Pearson Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1 Type of industry	1.00																		
2 Experience	0.23	1.00																	
3 Capital	-0.23	-0.05	1.00																
4 Type of ownership	-0.01	-0.03	-0.02	1.00															
5 Europe	0.03	0.10	0.09	0.12	1.00														
6 Asia	-0.02	0.00	-0.02	0.07	0.14	1.00													
7 Others	0.00	0.00	0.00	0.06	0.27	0.74	1.00												
8 Import ratio	0.29	-0.04	-0.15	0.33	-0.04	0.00	-0.01	1.00											
9 Export ratio	0.24	0.10	-0.06	0.01	-0.09	0.00	-0.01	-0.18	1.00										
10 Employees	-0.08	0.25	0.18	-0.12	-0.05	-0.06	-0.03	-0.22	-0.01	1.00									
11 Foreign Employees	-0.09	-0.02	0.06	-0.10	0.06	0.02	0.00	-0.11	0.03	0.34	1.00								
12 New graduate	-0.16	0.10	0.18	-0.17	-0.04	0.06	0.10	-0.24	-0.06	0.58	0.15	1.00							
13 Foreign Manager	0.09	0.15	-0.12	-0.11	-0.08	0.00	0.07	-0.19	0.12	0.10	-0.12	0.11	1.00						
14 Parent's Employees	-0.24	0.10	0.12	0.07	-0.07	-0.12	-0.08	-0.13	-0.11	0.25	0.07	0.17	0.07	1.00					
15 Asset growth ratio	0.03	-0.03	-0.03	0.01	-0.21	0.01	0.02	-0.05	-0.07	0.08	-0.13	0.16	0.09	0.05	1.00				
16 Sales growth ratio	-0.01	-0.05	0.00	0.00	-0.21	-0.02	0.01	-0.01	-0.07	0.08	0.02	0.19	0.04	0.05	0.91	1.00			
17 Parent's Sales	-0.05	0.08	0.06	0.09	0.19	-0.01	0.01	-0.21	-0.12	0.01	-0.01	-0.03	0.02	0.36	0.04	0.01	1.00		
18 Parent's sales growth	0.05	-0.01	-0.01	-0.06	-0.07	-0.02	-0.02	0.06	0.10	0.04	0.10	0.01	0.06	0.13	0.14	0.14	0.09	1.00	
N	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 4.6: Collinearity Statistics

Variables	Tolerance	VIF
Type of industry	0.709	1.41
Experience in host market	0.801	1.25
Foreign ownership ratio	0.860	1.16
Europe	0.812	1.23
Asia	0.430	2.33
Others	0.409	2.44
Import ratio	0.784	1.28
Export ratio	0.902	1.11
New graduate	0.615	1.62
Sales growth ratio	0.929	1.08
Foreign employees	0.837	1.19
Parent's sales growth ratio	0.944	1.06
Parent's Employees	0.714	1.40
Parent's Sales	0.759	1.32
Capital	0.581	1.72
Employees	0.309	3.23
Gross sales	0.307	3.25

We used a binary logistic regression for the type of industry's analysis. Binomial (or binary) logistic regression is a form of regression which is used when the dependent is a dichotomy and the independents are of any type. Continuous variables are not used as dependents in logistic regression. Logistic regression can be used to predict a dependent variable on the basis of continuous and/or categorical independents and to determine the percent of variance in the dependent variable explained by the independents; to rank the relative importance of independents; to assess interaction effects; and to understand the impact of covariate control variables. The impact of predictor variables is usually

explained in terms of odds ratios.

Table 4.7: Binary logistic regression for type of industry

Variables	Type of Industry
EXPRNC	0.054** (3.957)
WOS_IJV	-1.335** (3.302)
IMPORT	0.029*** (9.053)
EXPORT	0.025 (1.147)
F_EMPLY	0.100** (3.748)
N_GRAD	-0.24*** (6.512)
EMPLYE	0.382 (1.236)
P_EMPLY	-0.253 (1.528)
F_MNGR	1.555* (2.523)
P_SALS	0.946** (3.876)
P_ASSET	-1.068*** (4.769)
CAPTL	0.099 (0.169)
Constant	0.273 (0.028)
Cases	293
<i>Chi-square</i>	48.544***
<i>-2 Log likelihood</i>	74.579
<i>Cox & Snell R²</i>	0.318
<i>Nagelkerke R²</i>	0.512

* Significant to 0.1. ** Significant to 0.05. *** Significant to 0.01.

Notes: 1. Numbers in right sides are Wald Statistics.

2. The dependent variable is the type of industry which is a dummy variable coded 1 if the firm is in manufacturing industry and coded 0 if it is in services industry. F_MNGR, foreign manager; F_EMPLY, foreign employees; N_GRAD, new graduate; P_ASSET, parent's total assets; P_SALS, parent's total sales; P_EMPLY, the number of parent firm's employees; EXPRNC, parent's experience in host country; EMPLYE, the number of firm's employee; SALES, firm total sales; CAPTL, firm's capital; IMPORT, the ratio of import; EXPORT, the ratio of export; WOS_IJV, type of ownership (wholly owned subsidiary and international joint venture).

Based on Omnibus test result for our binary logistic regression, the model is significant in one percent. Omnibus tests of model coefficients reports significance levels

by the traditional chi-square method and is an alternative to the Hosmer-Lemeshow test. It tests if the model with the predictors is significantly different from the model with only the intercept. The omnibus test may be interpreted as a test of the capability of all predictors in the model jointly to predict the response (dependent) variable.

As Table 4.7 presents, the experience in host market (EXPRNC) has a positive significant ($p < 0.05$) with type of industry. The type of ownership (WOS_IJV) and new graduate (N_GRAD) are negatively associated with type of industry ($p < 0.05$ and $p < 0.01$ respectively). It is contrary to our expectation based on hypothesis H1. Therefore, MNCs are interested in holding an international joint venture when the subsidiary is in a manufacturing industry. In the other words, multinational companies in service industry are more likely to enter a host market through wholly owned subsidiary.

As shown in Table 4.7, the number of foreign employee has a positive significant relationship with type of industry. This supported our hypothesis H2a and implies that foreign companies in manufacturing industry are more likely to have a greater number of foreign employees than services industry. However, the results show a positive significant relation between foreign manager (F_MNGR) and parent company's gross sales (P_SALS) with type of industry. In the other words, firms in manufacturing industry are more likely to have a foreign manager and greater gross sales.

Our result analysis showed that parent company's total asset (P_ASSET) is negatively associated ($p < 0.01$) with type of industry. It implies that foreign companies in service industry are more likely to have greater amount of total asset in compare with manufacturing industry.

Larger companies usually have the slack resources for international venturing. Size also gives these firms the market power to preempt competitors' entry and reap higher than normal rates of performance. Conversely, some larger organizations are bureaucratic and

therefore slow to adapt to change through international venturing activities (Block and MacMillan, 1993 and Hastings, 1999).

Table 4.8: *The multiple linear regression result of asset growth ratio*

Independent Variables	Model 1		Model 2		Model 3	
(Constant)		1.236**		3.074**		-0.833
Type of industry	0.067	1.032	0.071	1.075	0.050	0.493
Experience in host market	-0.019	-0.290	-0.036	-0.544	0.188**	1.871
Foreign ownership ratio	-0.074	-1.218	-0.067	-1.095	0.172**	1.707
Europe			-0.209***	-3.363	-0.257***	-2.593
Asia			-0.015	-0.169	-0.099	-0.685
Others			0.080	0.904	0.205*	1.460
US and Canada	0.192***	3.243				
Import ratio	0.054	0.838	0.023	0.339	-0.132	-1.252
Export ratio	-0.067	-1.166	-0.077	-1.309	-0.293***	-2.970
New graduate	0.179***	2.703	0.169***	2.495	0.182***	2.711
Sales growth ratio	0.121**	2.101	0.131**	2.227	0.124**	2.135
Foreign employees	-0.159***	-2.686	-0.144**	-2.410	-0.160***	-2.696
Parent's sales growth ratio	0.138**	2.434			0.246***	2.519
Control Variables						
Parent's employees	-0.062	-0.672			-0.220**	-1.776
Parent's sales	0.175	1.838			-0.116	-1.006
Capital	-0.020	-0.291	0.001	0.019	0.063	0.358
Employees	-0.039	-0.460	0.037	0.448	-0.372	-1.102
Gross sales	-0.036	-0.448	-0.028	-0.337	0.375	1.069
<i>R</i> ²		0.145		0.118		0.282
<i>Adjusted R</i> ²		0.101		0.073		0.170
<i>df</i>		14		14		17
<i>F statistics</i>		3.313***		2.612***		2.223***
<i>No. of cases</i>		293		293		293

* Significant to 0.1. ** Significant to 0.05. *** Significant to 0.01.

Note: 1. the dependent variable is asset growth ratio for all three models.

2. The numbers in parentheses are the t values.

To test the hypotheses related to asset growth ratio, we ran a multiple linear regression analysis which is shown in Table 4.8. The analyses tested three models. First, in Model 1, all independent variables and one part of country of origin (US & Canada) were regressed on the study's control variables. Second, in Model 2, we added country of origin's variables and excluded the parent company's factor in the regression model. Third, in Model 3, parent company's factors were added to the variables already in Model 2. However, we regressed all variables which can effect on AGR based on our hypotheses.

As the results illustrated on Table 7, the sales growth ratio in all three models has a significant effect ($p < 0.05$) on asset growth ratio on five percent significant level. However, the ratio of parent's sales growth is positively associated with AGR. These support our hypothesis H3 in this study which implies that firms with the greater ratio of sales growth are more likely to have a greater ratio of asset growth. As Model 3 shows, the experience in host market is significantly associated with AGR. Therefore, it supported the hypothesis H4. In the other words, foreign companies with the more experience in host market (older subsidiaries) are more likely to have greater ratio of asset growth. As we expected, variables related to country of origin (US & Canada, Europe) are significantly associated with AGR. It implies that the nationality of foreign companies has a significant effect on their asset growth rate and this support our hypothesis H5 in this empirical study. Also the new graduate has a positive significant relationship with AGR on one percent significant level.

The regression result Model 3 shows that foreign ownership ratio is significantly associated with the ratio of asset growth. However, the firms with the greater ratio of foreign ownership are more likely to have a greater AGR. The ratio of export has a negative significant with the AGR on 1 percent significant level. Therefore, firms with the lesser export rates have the greater asset growth rates.

Based on the result of multiple linear regression analysis to examine the impact of type of industry, experiences, foreign ownership ratio, country of origin, import ratio, export ratio, new graduate, sales growth ratio, sales growth ratio, foreign employees, parent's sales growth ratio, on likelihood of the ratio of asset growth, the following model can be explained:

Asset Growth Ratio = f (experience, foreign ownership ratio, country of origin, export ratio, new graduate, sales growth ratio, foreign employees, parent's sales growth ratio)

The model can be expressed as:

$$AGR = \beta_0 + \beta_1 EXPRNC + \beta_2 FOWNR + \beta_3 COUNTRY + \beta_4 EXPORT + \beta_5 NGRAD + \beta_6 FEMPLY + \beta_7 SGR + \beta_8 PSGR + \varepsilon$$

Where, AGR is the asset growth ratio, $\beta_1 EXPRNC$ is the experience in host market, $\beta_2 FOWNR$ is foreign ownership ratio, $\beta_3 COUNTRY$ is country of origin, $\beta_4 EXPORT$ is the ratio of export, $\beta_5 NGRAD$ is the new graduate, $\beta_6 FEMPLY$ is foreign employees $\beta_7 SGR$ is sales growth ratio and $\beta_8 PSGR$ is parent's sales growth ratio and β_i is the coefficient of the independent variables. The β_0 refers to the constant and finally ε is the disturbance term.

As the results of Table 4.8 shown, the all three models were significant to one percent level. International venturing enhances a firm's ability to exploit its existing capabilities and resources while exploring new growth options. Exploitation centers on using the firm's existing knowledge, capabilities and resources in current and new foreign markets (Audia et al., 2000). However, excessive focus on the exploitation of existing capabilities can lead to organizational myopia (Audia et al., 2000 and March, 1991) and stagnation. International venturing reduces this risk by promoting exploration activities. Foreign owned companies and international alliances allow the firm to identify emerging technological, marketing, and competitive trends in foreign markets. This can stimulate

innovation and enhance the variety of the firm's strategic options.

4.5. Conclusion and limitations

Our results show a positive relationship between import ratio and type of industry. However, manufacturing firms have higher import in compare with firms in service industries. Contrary to our expectations, the type of ownership is negatively associated with type of industry. In the other words, multinational companies in service industry are more likely to enter a host market through wholly owned subsidiary. The results of industry structure analysis showed that foreign companies in manufacturing industry are more likely to have a greater number of foreign employees than services industry.

The Resource-based Theory emphasizes factors internal to the firm. It is argued that acquisition and retention of resources that are rare, non-substitutable and, in combination, difficult to imitate are a source of economic rent and accounts for the heterogeneity of firms in any industry (Reed and DeFillipi 1990; Mahoney and Pandian 1992; Oliver 1997).

According to this view, a company's competitive advantage derives from its ability to assemble and exploit an appropriate combination of resources. Sustainable competitive advantage is achieved by continuously developing existing resources and creating new ones and capabilities in response to rapidly changing market conditions. According to resource-based theorists like Grant (1991) and Peteraf (1993), firms can achieve sustainable competitive advantage from resources like strategic plans, management skills, tacit knowledge, capital, employment of skilled personnel among others. The assets and resources owned by companies may explain the differences in performance. Resources may be tangible or intangible and are harnessed into strengths and weaknesses by companies and in so doing lead to competitive advantage (Saffu and Manu, 2004).

We found that the total asset of parent company has negatively associated with type of

industry. In the other words, firms in service industries are more likely to have greater total asset than manufacturing industry. Our findings indicate that experience in host market; foreign ownership and new graduate have a positive and significant impact on AGR. Based on our results, country of origin of foreign companies has a significant effect on the ratio of asset growth. Our findings suggest that foreign companies from North America including US and Canada outperform subsidiaries from Europe and Asia. In the other words, North American's multinational companies have greater performance and the ratio of assets growth in Japan. It implies that country of origin matters for assets growth and MNCs have different strategy to invest and asset management and consequently, they have different asset performance. However, foreign companies from United States have greater AGR versus European subsidiaries in Japan.

Cultural distance is the difference in the values and beliefs shared between investing country and host country. Large cultural distances lead to high transaction costs for multinationals investing overseas (Chen and Hu, 2002) and may limit the effectiveness of behavioral based control mechanisms that rely upon trust, value congruence, and respect (Woodcock et al., 1994)

Therefore, foreign companies with greater ratio of foreign ownership and higher experience in host market and greater sales growth rate and lower ratio of export are more likely to have greater ratio of asset growth⁵.

This study has several limitations, related to its validity and scope. First, the scope of

⁵ The direct impact of foreign investment on import falls into two parts, namely an immediate effect emanating from the actual investment and the effects on the import pattern of the targeted enterprises. The former channel is generally limited to the imports of initial inputs of imported machinery and equipment, or of where FDI is large compared with the size of host market; it may include the knock-on effect on aggregate imports from rising total domestic demand. The second channel, which essentially depends on the investor's choice between imported and local inputs, has been studied extensively.

our conclusions is limited to the context of foreign companies in Japan. The second limitation is related to the database used in this study which has limited data about firm assets. Therefore, our study covered 293 firms out of 3500 foreign companies for analysis of asset growth ratio. Third, we employed limited number of variables based on our data bases in order to analyze of AGR. Therefore, there are more variables which could affect the results of asset growth ratio. Future studies that use more independent variables to measure the asset performance can add to this study in order to improve the validity of related findings.

Chapter 5

Conclusions

5.1. Conclusion and implications

Notwithstanding its limitations, the study obtained findings that are consistent with the extant eclectic paradigm and recourse based and corporate governance theories and several prior empirical studies. Thus, this research contributes to the literature by providing empirical support for several theories and previously defined and/or tested constructs. For example, the parent and subsidiary's factors measured in this study suggest the importance of internationalization and ownership advantages of Dunning's eclectic theory. Moreover, according to resource-based theory, the number of employees, capital and total assets constructs measured in this study propose the effect of firm's recourses on performance and ownership of foreign companies.

Our findings show that first, capital, the number of employees (as a proxy of subsidiary size) and full equity of ownership had significant effects on survival. Specifically, subsidiaries with small numbers of employees, greater preliminary capital and one hundred percent equity of ownership have a higher likelihood of survival. We had the same result for the effect of the size of the subsidiary on survival, consonant with Ciavarella et al. (2003) that shows there was a significant relationship between the size of the venture and its survival in both the logistic regression equation and survival analysis.

The size of MNCs firm reflects its capability for absorption of the high costs of marketing, for enforcing patents and contracts, and for achieving economies of scale in foreign markets. Empirical evidence indicates that the impact of firm size on FDI is positive (Cho, 1985 and Kimura, 1989).

The subsidiaries with a small number of employees have a greater sales growth rate and thus more likelihood of survival. This implies that cost of human resource is critical

for sales growth ratio and subsidiary's survival. We analyzed Japanese subsidiary's performance based on the sales growth ratio. We found that there is no significant relationship between subsidiary age, entry strategy and equity ownership (especially majority-owned subsidiaries) with sales growth ratio. In our results, contrary to previous studies (Lu & Hebert, 2005, Ogasavara & Hoshino, 2007b), the age of subsidiary as a proxy for local experience, didn't have an effect on performance. The findings suggest that the number of employees as a proxy of subsidiary size has an impact on the sales growth ratio. On the other hand, subsidiaries with a small number of employees have a greater rate of sales growth.

Supported by previous studies (Beamish & Inkpen, 1998, Makino & Beamish, 1998), our findings showed that in recent times, Japanese multinational companies investing in India prefer to acquire high levels of equity ownership and control, including full ownership (100 percent equity ownership) and wholly owned subsidiary (more than 95 percent equity ownership). Most of the host developing countries have developed their policies based on memories of the colonial past when Western firms backed by the colonial governments almost served as agents of imperialism. There is, therefore, an emotional and ideological desire for control reflected in a demand for domestic ownership. A high percentage of foreign ownership is considered undesirable while a significant level of domestic equity ownership is viewed as fair and equitable treatment in terms of incentives to be given to foreign affiliates by the host governments and politics common to all subsidiaries. Other key objectives of host country's policies are: developing local entrepreneurship and managerial resources, employment of local nationals at senior managerial levels, saving foreign exchange and promoting exports in order to improve balance of payments, self-reliance, diffusion of shareholding ownership, growth of a capital market, associating local shareholders with the profitability of the foreign

companies, and inducing foreign affiliates into industries of priority or sophisticated technology.

Second, findings in this study support the hypothesis that multinational companies preferred to enter as wholly-owned subsidiary in Japanese market. The results on the impact of knowledge transfer and development on performance appear a partially support for our hypotheses.

Our findings do not provide support for effect of country of origin on performance either of the positions (positive or negative). Therefore, the evidence remains inconclusive. Pangarkar and Lim (2003) and Demirbag et al. (2007) reached a similar conclusion, although other studies have found a negative association between country of origin and performance (Li and Guisinger, 1991; Uhlenbruck, 2004).

Based on our results, firms with larger number of foreign employees are more likely to have greater return on sales and lower return on assets.

We found that firms which hold higher levels of control have greater performance based on return on assets. Previous empirical showed that WOS outperform IJV in the developed and developing Asian countries (Woodcock et al., 1994). Kim et al., 2007 studied that when a public firm's ownership is concentrated into the hands of a few large shareholders, then these large shareholders should have both the intensive and the power to monitor the firm's operations and management effectively. However, while the large shareholder enjoys returns for its monitoring efforts, it also suffers some cost.

As Sengupta (1998) found, the establishment of a joint venture involves the transfer of capital from the home to the host country and must, therefore, be viewed as part of the overall phenomenon of foreign investment. Many host countries consider it important to limit joint ventures to minority participation, rather than foreign majority companies, in order to obtain greater operational control over foreign affiliates. It is, however, an open

question whether dilution of foreign holding necessarily means reduction of foreign control. While host countries encourage joint ventures, certain preconditions and infrastructure improvements are essential for their growth.

Our findings suggest that knowledge transfer factors including manager authority, new graduate, foreign manager and foreign employees are associated with equity ownership. In other words, affiliates with foreign manager and higher level of management authority; and greater number of foreign employees are more likely to share and develop knowledge.

Consequently, as Anand and Delios (1996) stated, the subsidiaries frequently reveal features such as a large number of employees, low amounts of equity, manufacturing activities (rather than service activities) and a greater incidence of joint ventures. On the other hand, subsidiaries in developed countries are usually related to the sale of production and the delivery of services. They are usually wholly owned and require a higher level investment.

Third, our findings indicate that the size of parent company has impact on subsidiary's performance. However, larger multinational companies had better returns on sales and assets in Japan. As the study of Pradeep and Chhibber (1999) showed, after controlling for a variety of firm and environment-specific factors, only when property rights devolve to foreign owners, at ownership levels providing unambiguous control at 51 percent, do firms in which there is foreign ownership display relatively superior performance. Fourth, contrary to previous studies, we found an insignificant relationship between ownership and performance. Fifth, multinational companies in manufacturing industry are more likely to invest in a host country as an international joint venture. Recently, MNCs are interested to enter in a host country as a wholly owned or greater equity ownership.

Sixth, the results demonstrate that wholly owned subsidiaries and firms with greater ratio of ownership have superior import ratio. However, MNCs preferred to enter and hold

minority equity of ownership when a subsidiary is export oriented. The size of subsidiary has positive impact on foreign ownership. In other words, parent companies preferred to own more equity ownership for large size subsidiaries. Finally, our findings suggest that firms with greater ratio of foreign ownership are supposed to have managers with higher proportion of authority and greater number of foreign employees. Based on our research, when the subsidiary is export-oriented, parent firms preferred to have a minority owned subsidiary and lower ratio of ownership. As Hennart and Park (1993) found that when transaction costs are low, firms tend to rely on the market to deliver required target market benefits. As the costs increase they tend to switch to more hierarchical modes e.g. wholly owned subsidiaries. The core dimensions of these transactions are the asset specificity, the frequency of economic exchange, and uncertainty surrounding the exchange of resources between the focal parties.

Our finding showed that multinational companies in service industry are more likely to enter a host market through wholly owned subsidiary. The results of industry structure analysis showed that foreign companies in manufacturing industry are more likely to have a greater number of foreign employees than services industry.

Based on our results, country of origin of foreign companies has a significant effect on the ratio of asset growth. In the other words, multinational companies from different country have different strategy to invest and asset management as well as different asset performance. Our study shows that foreign companies from United States have greater asset growth ratio versus European subsidiaries in Japan. Therefore, foreign companies with greater ratio of foreign ownership and higher experience in host market and greater sales growth rate and lower ratio of export are more likely to have greater ratio of asset growth. Based on transaction cost theory, when a company tries to determine whether to outsource or to produce goods or services on its own, market prices aren't the sole factor.

There are also significant transaction costs, search costs, contracting costs and coordination costs. Those costs frequently determine whether a company uses internal or external resources for products or services.

We found a positive relationship between firm assets and sales with firm's performance. Therefore, consistent with resource-based view (Grant, 1991 & Peteraf, 1993), firms can achieve sustainable competitive advantage from resources like strategic plans, management skills, tacit knowledge, capital, employment of skilled personnel among others. The assets and resources owned by companies may explain the differences in performance. Resources may be tangible or intangible and are harnessed into strengths and weaknesses by companies and in so doing lead to competitive advantage

Our finding is consistent with the OLI paradigm (Dunning's eclectic theory). It posits that a firm will invest overseas when it has either an ownership advantages (trademark, production technique, entrepreneurship skills, returns to scale, shareholders), or the intended investment site has a locational attraction (existence of raw materials, low wages, special taxes or tariffs), and the firm prefers to internalize these advantages by producing abroad, as opposed to indirectly profiting from its advantages by producing through a partnership arrangement such as licensing or a joint venture and wholly owned. An organizational advantage facilitates the transference of technology or some special skills and in some sense is an exportation of a service. As such, foreign investment improves the overall welfare of both the sending and the recipient countries, while still having distributional effects. However, in this theoretical model, not all the net impacts associated with foreign investment are positive.

Our findings suggest that foreign companies from North America including US and Canada outperform subsidiaries from Europe and Asia. In the other words, North American's multinational companies have greater performance based on the ratio of assets

growth in Japan. It implies that country of origin matters for assets growth and MNCs have different strategy to invest and asset management.

The ownership advantage explains a firm's resource commitment and refers to assets power that a firm must possess to compete successfully with host country firms in their own markets, which can be tangible and intangible such as firm size, multinational experience, proprietary products or technologies, specialized know-how, and skills by its ability to innovate or to develop differentiated products (Dunning, 1993, Dunning, 1995 and Nitsch et al., 1996). Another form of asset power, a firm's level of multinational experience, has also been shown to influence entry choices (Agarwal and Ramaswami, 1992) and performance (Siripaisalpipat and Hoshino, 2000). As a firm expands its operations overseas, it learns more about how to cope with different environment in terms of economic, political, and legal systems as well as the cultural distances. This ownership advantage generated corporate performance (Delios and Beamish, 1999 and Gomes and Ramaswamy, 1999), and consequently reflected on subsidiaries performance

Recourse based view explains that a firm's sustainable competitive advantage is reached by virtue of unique resources which these resources have the characteristics of being rare, valuable, inimitable, non-tradable, non-substitutable as well as firm specific.

The MNCs have to handle and control multiple transactions in remote locations adopting a variety of coordination mechanisms most of which have been invented for the purpose of effective administration and management of economic activities in organizations and institutions. The complexity of MNC operations requires a complex set of tools used by individual and collective agents all engaged in a complex allocation of resources for operational and strategic purposes. In this context the discussion of the decision making power of the individual members of the board of directors, or the accountability of insider agents to outsider shareholders and stakeholders merely reaches

the paradox that there are no boundaries to managerial opportunism, and enhanced control that assumes tentative opportunism, generates merely more sophisticated evasive man-oeuvres from executives entrusted to handle operational risks.

Policy makers in some emerging markets tend to see foreign investment as a possible vehicle for raising exports. The prevailing reasoning is that MNCs may increase the export orientation of domestic market through channels that include: their higher degree of sophistication in product quality, brand recognition and access to world markets; their potential for alleviating constraints on the use of the host market's factor endowment; and their longer-term impact on the international competitiveness of the host market business sector.

5.2. Limitations

This study has several limitations, related to its validity and scope. First, the scope of our conclusions is limited to the context of Japanese subsidiaries in India and foreign companies in Japan. Second, the data used in this study were from 2001 to 2006. The third limitation is related to the subsidiary data used in this study, published by Toyo Keizai Inc., which has limited data about subsidiaries. Therefore, there are more variables which could affect the results of survival and performance. These problems cannot be avoided since there is only the one source of Japanese subsidiary data available. Nevertheless, our findings illustrate the importance of year of establishment, equity ownership, survival and the sales growth ratio for Japanese subsidiaries in India.

Fourth, since the study covers foreign affiliates in Japan. The recent studies found stark differences in the characteristics and performance of investment between developed and less developed countries (Makino et al., 2004). Fifth, we employed limited number of variables including manager authority, foreign manager and foreign employees as proxies

for knowledge transfer and development. Measuring knowledge transfer through these factors may be criticized, as it does not capture location and industry factors. Future studies that use different dimensions to measure knowledge transfer can add to this study in order to improve the validity of related findings.

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