

Performance of Japanese MNEs in Developed Countries: The Case of Europe and USA

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In order to be successful in the foreign market, it is vital to companies to have enough resources and flexibility and decide which appropriate mode of entry to use for penetrating the foreign market. The determinant of performance is an area of interest to researchers in the field of international business. Several studies have explored the impact of various factors on the success of MNE. Five hypotheses were formulated and tested on a sample of 492 Japanese companies in Europe and USA. A binomial regression was performed to test the hypotheses. The dependent variable was the overall performance satisfaction of the affiliate. The results show that firms with technological capabilities, having previous experience in the same country and investing in resource-based industries are performing better.

Field of Research: International Business

1. Introduction

To succeed in international markets, firms must possess superior assets and skills and need to select the appropriate entry mode, which is considered as a critical and indispensable decision when investing overseas (Anderson and Gatignon, 1986; Root, 1994). The performance can also be influenced by the cultural distance between the host and home countries (Killing, 1983). In this study, the determinants of the performance of Japanese manufacturing affiliates in U.S.A. and Western Europe are studied. It gives additional evidence of the relationship between the performance of multinational companies with such factors as firm size, firm age, firm R&D capabilities and culture differences between host and home countries. The Japanese foreign direct investments have boomed over the past decades as many Japanese companies have set up production facilities overseas. The outflow of Japanese investments overseas had increased dramatically since the 1990s. The internationalization of the Japanese companies has attracted a number of researchers (Sekiguchi, 1979; Kimura, 1989; Hennart and Park, 1993, 1994; Nitsch et al., 1996) in the last two decades. They have discussed the determinants of FDI as well as the entry mode choice and performance in different locations.

The rest of the paper is organized as follows: section 2 discusses the literature, section 3 introduces the methodology and the different measures, section 4 explores the empirical results, and the final section 5 presents the concluding remarks.

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2. Literature Review

2.1. Entry Mode

Entry mode is one of the most important decisions faced by a MNE going abroad through FDI. They have the choice between an equity joint venture and a wholly owned subsidiary. Li (1995) argued that the choice of entry mode is related to the survival of foreign subsidiaries. Woodcock et al. (1994) and Nitsch et al. (1996) examined the relationship between entry modes and performance. They found that new venture mode outperforms the international joint venture mode.

Hypothesis 1: Foreign firms entering through full ownership investments are more likely to perform better than those entering through shared ownership investments.

2.2. Firm-specific Advantages

Size can be considered as an important source of strategic advantage since it can allow the firm to realize economies of size and scope and access to resources denied to smaller firms. Small companies have fewer financial resources than larger firms and have, thus for instance, less planning and less alternative development. Isobe (1998) found that size of parent tend to have positive influence on subsidiary's performance.

Hypothesis 2 (a): The larger the foreign firm is, the more likely the subsidiary performs better.

R&D has been viewed as a key determinant of the technological know-how of firms. It is perceived as an important stimulation for good results and it has been found in numerous empirical studies. Kotabe (1990) states that companies can improve their performance by focusing on product design/development and by improving their manufacturing processes. Siripaisalpipat and Hoshino (1999) found that R&D intensity of the investor has a positive influence on the profitability of the subsidiary.

Hypothesis 2 (b): Technological capabilities of the investor firm are positively associated with the subsidiary performance.

Experience is a strong factor that permits firms to gradually increase their commitment to geographical expansion. Firms, which lack experience in the international setting, are not capable of managing subjectively, monitoring appropriately, and assessing inputs in lieu of outputs (Gatignon and Anderson, 1988). The more multinational is the firm, the greater it can leverage strategic resources and diversify market risks, and thus it can perform better (Kim et al., 1993).

Hypothesis 2 (c): The greater the international experience of the investor firm is, the more likely the subsidiary will perform better.

Employees constitute an important source of competitive advantage for firms (Barney, 1991). Expatriates play an important role in representing the corporate offices of a

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particular MNE (Peterson et al., 1996). Multinationals companies send expatriates abroad to transfer managerial expertise and technology as well as maintaining control over host country subsidiaries (Boyacigiller, 1990). So, the firm that uses effectively expatriate managers will show higher performance. Kobrin (1988) states that, by reducing the number of expatriate overseas, multinational corporations are making a significant strategic error.

Hypothesis 2 (d): The larger the number of expatriates of a firm is, the more likely the subsidiary performs better.

2.3. Industry-specific Advantages

Performance can vary from one industry to another. Some industries need more R&D efforts; this could be an entry barrier and reduces competition and the possibility of better performance. Christman et al. (1999) found that industry characteristics are significant determinants of subsidiary performance.

Hypothesis 3: Industry characteristics have significant effects on performance.

2.4. Location-specific Advantages

The country conditions are important determinants of the performance of multinational companies' subsidiaries. Much international business literature has recognized the influence of country conditions such as demographic, economic, and political factors on performance. The selection of the country for entry and investment is a very important challenge facing these firms (Christmann et al, 1999). The results of their study show that country characteristics are by far the most important determinants of subsidiary performance.

Hypothesis 4: Country characteristics have significant effects on performance.

2.5. Cultural Distance

The performance is affected by the cultural distance between the host and home countries (Killing, 1983). The greater the cultural distance between home and host countries, the greater the differences in management practice, and the harder the integration of the unit with the parent. So, it is often that problems in communication between the subsidiary and the parent can take place. The similarity reduces these problems and leads to better performance.

Hypothesis 5: Cultural distance is inversely related to firm performance.

3. Methodology and Research Design

The source of data is compiled from *Japanese Overseas Investment Year 1999: a Complete Listing by Firms and Countries* (Toyo Keizai Inc.). The Kaisha Nenkan was used to retrieve data about firm-specific advantages when unavailable from the former source. The company's performance is measured by asking the top Japanese manager in every subsidiary to evaluate the overall financial profitability according to three-point scale, representing "Loss", "Breakeven" and "Gain". The final sample includes 492 companies in the year 1998: U.S.A. (312 firms) and Europe (180 firms).

In this analysis, the dependent variable, Performance is a dichotomous variable, which is equal to 1 if it is "Gain" and 0 if it is "Breakeven" or "Loss".

The variables used in the analysis were shown in Table 1.

To explore the influence of the variables described above on the performance of the foreign firm, we conducted a binomial logit regression analysis. The model can be expressed as:

$$P(Y) = 1 / (1 + \exp(-Z))$$

where Y is the dependent variable, Z is a linear combination of the independent variables

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n,$$

where β_0 is the intercept, $\beta_1 \dots \beta_n$ are the regression coefficients and $X_1 \dots X_n$ are the independent variables.

4. Discussion of Findings

The correlation matrix of the independent variables, presented in Table 1, suggests little collinearity. All the hypotheses were tested for every location then for the whole sample.

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Table 1: Pearson Correlation Coefficients and Descriptive Statistics (Full Sample)

Variables	Definition										Mean	S.D.
1. MODE	Dummy equal to 1 if the parent firm owned at least 95% of the subsidiary's equity.										0.630	0.480
2. SIZE	Parent company's total assets introduced in logarithmic form.										5.850	1.261
3. RND	Parent company's R&D expenditures to total sales.										0.034	0.031
4. INTEXP	The total number of foreign subsidiaries of the parent company.										34.20	68.80
5. AGE	The affiliate age.										11.20	6.05
6. EARLY	The parent company has other subsidiary in that country.										0.50	0.50
7. EXPATR	The number of Japanese employees in the foreign subsidiary.										6.10	7.24
8. MANAGER	Dummy equal to 1 if the manager of the firm is Japanese.										0.60	0.49
9. INDUSTRY	Dummy equal to 1 if the firm is included in one of the four following groups or what are classified as resource-based industries i.e.: Food and Beverages; Textiles; Pulp, Wood and Paper; and Chemical products, Rubber and Plastics.										0.41	0.49
10. INFLAT	The host country inflation rate.										1.08	0.230
11. GDP	The host country GDP.										15.35	1.170
12. Kogut & Singh Index	<p>Kogut and Singh (1988) used Hofstede (1980)'s indices to formulate a composite index of cultural distance. This index was formed based on the deviation along each of the four cultural dimensions (i.e., power distance, individualism/collectivism, masculinity/femininity, and uncertainty avoidance) of each country from the country of origin ranking. The cultural distance is defined as:</p> $CD_{jk} = \sum_{i=1}^4 \{(D_{ij} - D_{ik})^2 / V_i\} / 4,$ <p>CD_{jk} is the cultural distance between countries j and k, D_{ij} is the score for subsidiary country j on cultural dimension i, D_{ik} is the score for subsidiary k on cultural dimension i, and V_i is the variance of the index for cultural dimension i.</p>										2.43	0.833

	1	2	3	4	5	6	7	8	9	10	11	12
1												
2	-0.067											
3	0.113	0.222										
4	-0.207	0.394	-0.158									
5	0.074	0.092	0.032	0.006								
6	0.032	0.315	0.043	0.273	-0.239							
7	0.077	0.277	0.137	0.014	0.186	0.063						
8	0.092	-0.002	-0.008	0.077	0.147	0.007	0.139					
9	-0.051	0.068	0.079	-0.004	0.005	-0.087	-0.182	-0.033				
10	0.060	0.078	-0.040	0.076	0.028	0.293	0.195	0.128	0.062			
11	0.096	0.035	-0.008	0.036	-0.008	0.400	0.220	0.142	-0.042	0.615		
12	0.020	-0.023	-0.072	-0.017	0.057	-0.066	-0.033	-0.012	0.013	0.075	-0.294	

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The results of the analysis concerning every location were presented in Table 2. Contrary to expectation (hypothesis 1), the coefficient of MODE, the Japanese parent's entry mode structure, is negative and not significant for both locations. This result is supporting the findings of Vega-Cespedes and Hoshino (2001) that performance is not directly associated with the entry mode. They used a sample of 205 Japanese subsidiaries in Latin America.

Unexpectedly, the size of the investing company (hypothesis 2(a)) is found to be not significant in the two regions, showing that the size of Japanese firms is not a strong determinant of the performance of these firms. This result is confirming the findings of Rugman (1986) who found that size and profitability are not directly related. Hypothesis 2(b), which states that technological capabilities of the investor increase the likelihood of better performance of the subsidiary, is confirmed for Europe. The coefficient of RND, the Japanese parent R&D ratio, is positive and significant for the European region, confirming the results of previous studies (Decarolis and Deeds, 1999; Makino and Delios, 1996; Lu and Beamish, 2001). For the experience effect on performance, different results were registered. The degree of international expansion, as measured by INTEXP, the number of foreign affiliates, has not a significant effect on performance. For the coefficient of AGE, the subsidiary's age, it has the correct sign but significant only in the U.S.A. The firms that have other subsidiary in Europe turn to perform better as the coefficient of the variable EARLY is positively significant. These firms benefit from their previous experience in the same country.

In line with hypothesis 2(d), the coefficient of EXPATR, the Japanese expatriate measure, is positively significant in Europe showing that the more Japanese managerial staff, the better the performance would be. Apparently, expatriates in Europe found better conditions to serve as control representatives of the home office in insuring that the subsidiary adheres to the corporate goals and objectives. So, by using effectively the expatriate managers, these firms show higher performance. Supporting hypothesis 3, the coefficient of INDUSTRY is positively significant (at $p < 0.1$) in both U.S.A. and Europe. So, in these two regions, the resource-intensive industries are performing better than the rest of industries, supporting the findings of Bane et al. (1984).

The second test containing the analysis of the full sample was presented in Table 3. The combined effect of entry mode and firm-, and industry-specific factors was first examined. The result of the fitted model and corresponding statistical test is shown as model 1 in Table 3. The second part of this analysis consists on adding the country-specific factors. The result of the fitted model and corresponding statistical test is shown as model 2 in Table 3. Finally, the cultural distance variable (The Kogut and Singh index) was included. The result of the model containing the entry mode, firm-, country-, and industry-specific factors and culture index is shown as model 3 in Table 3.

We found that the coefficient of entry mode, MODE, is negative and not significant. So, the ownership structure of the Japanese firms entering these two regions does not

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affect the profitability of their subsidiaries. The coefficient of ASIZE, the parent company total assets, shows the expected positive impact on the dependent variable, but it is not significant. The firm size is shown to be not an important factor influencing the performance of Japanese subsidiaries. The coefficient of the subsidiary age, AGE, is positive and strongly significant. This is consistent with the work of Lupo et al. (1987) who found that profitability was related to the age of the subsidiaries. Also, firms having other subsidiary in the same country are performing better. Contrary to our hypotheses, the human resources variables were found to be statistically not significant. Likewise, the country variables do not affect the profitability of these companies

The results show that the coefficient of cultural distance is negative and not significant, confirming that the culture differences between the host and the investing countries are not a consistent factor of the good performance of the firm. This confirms the findings of Gomez-Mejia and Palich (1997) who found that culture distance does not affect performance.

Table 2: Logit Regression Results of the Determinants of Performance of Japanese Investments by Region

	U.S.A.		Europe	
Intercept	-0.920	(1.267)	-0.315	(0.068)
MODE	-0.384	(1.507)	-0.240	(0.288)
SIZE	0.063	(0.182)	-0.214	(0.922)
RND	7.903	(2.455)	23.815**	(5.820)
INTEXP	-0.002	(1.053)	0.002	(0.208)
AGE	0.053**	(4.056)	0.028	(0.607)
EARLY	0.337	(0.964)	1.054**	(4.051)
EXPATR	-0.001	(0.002)	0.213**	(5.281)
MANAGER	0.058	(0.036)	-0.334	(0.585)
INDUSTRY	0.697**	(5.825)	0.787*	(2.986)
χ^2		15.741*		21.366***
N		358		180
DF		9		9
Log Likelihood		-153.8		-74.9

Note: Figures within parentheses are *Wald*-Statistics (*p<0.10; **p<0.05; ***p<0.01).

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Table 3: Logit Regression Results of the Determinants of Performance of Japanese Investments for the Full Sample

	Model 1		Model 2		Model 3	
Intercept	-0.759	(1.305)	2.243	(0.083)	2.767	(1.296)
MODE	-0.350	(1.994)	-0.362	(2.109)	-0.358	(2.058)
SIZE	0.031	(0.069)	0.003	(0.001)	0.004	(0.001)
RND	10.854**	(5.957)	11.174**	(6.251)	11.109**	(6.161)
INTEXP	-0.001	(0.386)	-0.001	(0.427)	-0.001	(0.433)
AGE	0.047**	(5.126)	0.051**	(5.758)	0.051**	(5.833)
EARLY	0.432*	(2.903)	0.568**	(4.207)	0.571**	(4.252)
EXPATR	0.005	(0.095)	0.010	(0.296)	0.010	(0.303)
MANAGER	-0.025	(0.011)	-0.042	(0.029)	-0.042	(0.029)
INDUSTRY	0.612***	(6.916)	0.615***	(6.702)	0.616***	(6.784)
INFLAT			0.760	(0.990)	0.808	(1.067)
GDP			-0.294	(0.071)	-0.277	(2.506)
Kogut and Singh Index					-0.040	(0.067)
χ^2		25.787***		28.612***		28.678***
DF		9		12		13
Log Likelihood		-234.4		-233.0		-232.9
N=492						

Note: Figures within parentheses are *Wald*-Statistics (*p<0.10; **p<0.05; ***p<0.01).

5. Conclusion

This study sheds light on a crucial strategic decision by firms in their way to internationalization: what are the factors affecting their performance, and what is the preferred mode of entry that is more beneficial to them. The study is based on a sample of 492 companies in the U.S.A. and Europe in 1998. The empirical part is divided between the analysis of every region and the full sample including all the regions. The results show that firms: (1) with technological capabilities; (2) having previous experience in the same country; and (3) investing in resource-based industries are performing better. In addition, this research shows that cultural difference between the home and host countries is not significantly affecting the profitability of the subsidiaries in the foreign markets in the case we measure the cultural distance by the Kogut and Singh index. This can be explained by the fact that Japanese companies have a wide knowledge of the markets where they invest. Yet, the present study could be constrained by some limitations. Due to the nature and size of the database published by Toyo Keizai Inc., it is hard to construct some firm-specific variables since we do not dispose of the subsidiaries' financial statements, although such variables can add a better understanding of the performance of these firms.

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References

- Anderson, E. and Gatignon, H. 1986. Modes of foreign entry: A Transaction Cost Analysis and Propositions, *Journal of International Business Studies*, 17: 1-26.
- Bane, W.T., Handley, D. and Neubauer, F.F. 1984. *The Failure Rate of Foreign Investment: Some Reasons*. International Management Institute, Geneva.
- Barney, J.B. 1991. Firm Resources and Sustained Competitive Advantage, *Journal of Management*, 17: 99-120.
- Boyacigiller, N. 1990. The Role of Expatriates in the Management of Interdependence, Complexity and Risk in Multinational Corporations, *Journal of International Business Studies*, 21(3): 357-382.
- Christman, P., Day, D. and Yip, G.S. 1999 The Relative Influence of Country Conditions, Industry Structure, and Business Strategy on Multinational Corporation Subsidiary Performance, *Journal of International Management*, 5: 241-265.

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Decarolis, D.M. and Deeds, D.L. 1999 The Impact of Stocks and Flows of Organizational Knowledge on Firm Performance: An Empirical investigation of the Biotechnology Industry, *Strategic Management Journal*, 20: 953-968.

Gatignon, H. and Anderson, E. 1988 The Multinational Corporation's Degree of Control over Foreign Subsidiaries: An Empirical Test of a Transaction Cost Explanation, *Journal of Law, Economics, and Organization*, 4(2): 305-336.

Gomez-Mejia, L.R. and Palich, L.E. 1997 Cultural Diversity and the Performance of Multinational Firms, *Journal of International Business Studies*, 28(2): 309-335.

Hennart, J.F. and Park, Y.R. 1993 Greenfield vs. Acquisition: The Strategy of Japanese Investors in the United States, *Management Science*, 39: 483-497.

Hennart, J.F. and Park, Y.R. 1994 Location, Governance, and Strategic Determinants of Japanese Manufacturing Investment in the United States, *Strategic Management Journal*, 15(6): 419-436.

Hofstede, G. 1980 *Culture's Consequences: International Differences in Work-Related Values*. Sage, Beverly Hills, Calif.

Isobe, T. 1998 Nikkei Kaigai Kogaisha No Jigyo Mokuteki To Gyouseki (Business Roles and Performance of Japanese Subsidiaries), *Japan Academy of International Business Studies Annual Bulletin*, 4: 320-331 (in Japanese).

Killing, P. 1983 *Strategies for Joint Venture Success*. New York: Praeger.

Kim, W.C., Hwang, P. and Burgers, W.P. (1993) Multinationals' Diversification and the Risk-Return Tradeoff, *Strategic Management Journal*, 14: 275-286.

Kimura, Y. 1989 Firm-Specific Strategic Advantages and Foreign Direct Investment Behavior of Firms: the Case of Japanese Semiconductor Firms, *Journal of International Business Studies*, 51: 296-314.

Kobrin, S.J. 1988 Expatriate Reduction and Strategic Control in American Multinational Corporations, *Human Resource Management*, 27(1): 63-75.

Kogut, B. and Singh, H. 1988 The Effect of National Culture on the Choice of Entry Mode, *Journal of International Business Studies*, 19 (Fall): 411-432.

Kotabe, M. 1990 Corporate Product Policy and Innovative Behavior of European and Japanese Multinationals: An Empirical Investigation, *Journal of Marketing*, 54: 19-33.

Li, J. 1995 Foreign Entry and Survival: Effects of Strategic Choices on Performance in International Markets, *Strategic Management Journal*, 16: 333-351.

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Lu, J.W. and Beamish, P.W. 2001 The Internationalization and Performance of SMEs' *Strategic Management Journal*, 22: 565-586.

Lupo, L.A., Gilbert, A. and Liliestedt, M. 1987 The Relationship Between Age and rate of Return of Foreign Manufacturing Affiliates of US Manufacturing Parent Companies, *Survey of Current Business*, 58: 60-66.

Makino, S. and Delios, A. 1996 Local Knowledge Transfer and Performance: Implications for Alliance Formation in Asia, *Journal of International Business Studies*, Special Issue: 905-927.

Nihon Keizai Shimbunsha. 1999 *Kaisha Nenkan (Annual Corporation Reports)* (in Japanese). Tokyo.

Nitsch, D., Beamish, P. and Makino, S. 1996 Entry Mode and Performance of Japanese FDI in Western Europe, *Management International Review*, 1: 27-43.

Peterson, R.B., Sargent, J., Napier, N.K. and Shim, W.S. 1996 Corporate Expatriate HRM Policies, Internationalization, and Performance in the World's Largest MNCs, *Management International Review*, 36(3): 215-230.

Root, F.R. 1994 *Entry Strategies for International Markets*. Lexington Books: Lexington, MA.

Rugman, A.M. 1986 European Multinationals: An International Comparison of Size and Performance. In Machazina, K. and Staehle, W.H. *European Approaches to International Management*. Walter de Gruyter: Berlin, New York.

Sekiguchi, S. 1979 Japanese Direct Foreign Investment. Allenheld, Osmun, Montclair.

Siripaisalpipat, P. and Hoshino, Y. 1999 Performance of Japanese Overseas Subsidiaries: The Effects of Entry Mode and Ownership Advantages, *Japanese Journal of Administrative Science*, 13: 19-32.

Toyo Keizai Inc. 1999 *Kaigai Shinshutsu Kigyo Souran Kaisha Betsuhen* (Japanese Overseas Investments Listed by Firms) (in Japanese). Tokyo.

Toyo Keizai Inc. 1999 *Kaigai Shinshutsu Kigyo Souran Kuni Betsuhen* (Japanese Overseas Investments Listed by Countries) (in Japanese). Tokyo.

Vega-Cespedes, C. and Hoshino, Y. 2001 Effects of Ownership and Internalization Advantages on Performance: The Case of Japanese Subsidiaries in the United States and Latin America, *Review of Pacific Basin Financial Markets and Policies* 4(1): 69-94.

Woodcock, C., Beamish, P. and Makino, S. 1994 Ownership-Based Entry Mode Strategies and International Performance, *Journal of International Business Studies*, 2: 253-273.