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SURVIVAL AND PROFITABILITY: THE ROLES OF EXPERIENCE AND INTANGIBLE ASSETS IN FOREIGN SUBSIDIARY PERFORMANCE

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This study integrates research on the financial performance of multinational firms with research on foreign subsidiary survival. We examined the influences a firm's intangible assets and its experience have on foreign subsidiary survival and profitability using a sample of 3,080 subsidiaries of 641 Japanese firms. The results show survival and profitability have different antecedents. Host country experience has a direct effect on survival but a contingent relationship with profitability. The entry mode moderated the nature of these relationships.

The success of international expansion has long been a topic of interest in the international business and strategic management literatures. Typically, studies have taken two approaches to explore this issue. The first evaluates the corporate financial performance implications of a firm's relative emphasis on international markets. Arguing from the perspective that a firm's motive for international expansion, and its success, are largely determined by its intangible assets (Caves, 1996), in numerous studies researchers have found positive associations between a firm's level of multinationality and its performance (Delios & Beamish, 1999; Hitt, Hoskisson & Kim, 1997; Tallman & Li, 1996). The second approach has foreign subsidiary longevity as its focus. The key argument in this approach is that a multinational firm can overcome the competitive disadvantages it has compared to domestic competitors (Hymer, 1976) by learning about host country conditions through the accumulation of investment experience in foreign markets (Barkema, Bell, & Pennings, 1996; Johanson & Vahlne, 1977).

In this study, we bridge these two perspectives

by looking at intangible asset and experience influences on the survival and profitability of a multinational firm's foreign subsidiaries. We build our analysis from an evolutionary perspective on multinational firms. In this perspective, it is recognized that the impetus to a firm's internationalization stems from its intangible assets. A multinational firm is seen as developing new capabilities and augmenting existing capabilities through its experience in foreign markets (Kogut, 1983). This study is unique as it develops hypotheses regarding how experience, intangible assets, and entry mode influence both subsidiary survival and subsidiary profitability. We tested our hypotheses using a sample of 3,080 Japanese foreign subsidiaries established in the 1986–96 period.

THEORY AND HYPOTHESES

Intangible Assets and Subsidiary Performance

Intangible assets are the foundation of a firm's motivation to expand into new geographic markets (Dunning, 1993). Intangible assets generate advantages in the home country that can be exploited in overseas markets. Intangible assets motivate firms to undertake geographic diversification because growth into new markets does not depreciate the home market value of information-intensive assets (Morck & Yeung, 1998). Intangible assets are public goods that can be applied in new markets with proportionally smaller increments in cost. The economies of scope found in the application of intangible assets is one of the main theoretical ex-

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planations for the empirically observed positive relationship between level of profitability and the extent of the geographic scope of multinational firms (Delios & Beamish, 1999; Geringer, Beamish, & daCosta, 1989; Tallman & Li, 1996).

A second source of profitability for a multinational firm extends from the rent-yielding, knowledge-based advantages intangible assets provide when deployed for competition in a host country (Caves, 1971). The intangible assets underlying knowledge-based competitive advantages can contribute to higher performance (Barney, 1991) when a multinational firm can exploit its intangible assets in a new environment without a diminishment in the assets' value. When a firm enters a host country by forming a foreign subsidiary, the subsidiary becomes the multinational firm's agent for exploiting its intangible asset advantages (Rugman, 1982). These advantages provide the foreign subsidiary with a superior competitive position in the local marketplace, particularly when the parent firm is committed to developing a strong position in the host country (Isobe, Makino, & Montgomery, 2000). Empirical evidence supports this contention. Morck and Yeung (1992) and Mishra and Gobeli (1998) found positive relationships between a multinational firm's possession of intangible assets and its subsidiaries' market values. Accordingly, we expected a multinational firm's possession of intangible assets would positively influence subsidiary performance:

Hypothesis 1a. The greater a multinational firm's possession of intangible assets, the higher the likelihood of a foreign subsidiary's survival.

Hypothesis 1b. The greater a multinational firm's possession of intangible assets, the greater the profitability of a foreign subsidiary.

Experience and Subsidiary Performance

Intangible asset advantages are a means by which a multinational firm can achieve a strong position in a host country despite its having local knowledge disadvantages compared to local firms (Hymer, 1976). Although multinational firms are disadvantaged compared to local firms in their understanding of host market cultural, political, and economic institutions, this disadvantage can be overcome by gaining capabilities applicable to the host country (Chang, 1995).

One way to acquire locally applicable capabilities is to involve a local firm as an equity partner in the foreign subsidiary (Inkpen & Beamish, 1997). A second way is to acquire operational experience in

the host country (Johanson & Vahlne, 1977). A firm's host country experience contributes to the development of new knowledge and capabilities, and this development influences a firm's strategy and performance (Barkema et al., 1996; Pennings, Barkema, & Douma, 1994). However, knowledge and capabilities tend to be specific to the host country in which the experience was acquired. Hence, knowledge generated in one context has less applicability when transferred across borders (Barkema et al., 1996; Johanson & Vahlne, 1977; Madhok, 1997). As host country experience generates general knowledge and capabilities applicable to the local environment, multinational firms that have accumulated host country experience reduce the scope of their competitive disadvantage and face fewer operational difficulties in the local market. Hence, we expected host country experience to improve subsidiary survival likelihood:

Hypothesis 2a. The greater a multinational firm's experience in the host country of a foreign subsidiary, the higher the likelihood of the subsidiary's survival.

Host country experience can also influence subsidiary profitability when it contributes to the development of unique capabilities within the subsidiary. The starting point for this development is the intangible assets that were transferred from the multinational. As we stated earlier, the application of intangible assets in new geographic markets does not depreciate the value of the assets in the home market. However, the successful transfer of intangible assets to the host country market can be subject to impediments. One impediment is the multinational firm's capability to efficiently transfer knowledge within firm boundaries but across borders (Kogut & Zander, 1993), while containing the potentially high costs of transfer (Teece, 1977). Another impediment is the degree to which the asset is applicable within the new competitive setting. The degree of applicability of the asset to the new setting is determined by whether the expansion is made into new product or new geographic markets (Chatterjee & Wernerfelt, 1991).

In a domestic setting, if expansion is made within one of the core businesses of a firm, there is little requirement to adapt existing capabilities (Florida & Kenney, 1991). However, when an expansion is made in an international setting, adaptation is needed, because national markets vary considerably in a number of important ways. Multinational firms need to adapt to differing societal, political, economic, and technological regimes (Beamish, 1988) and to varying preferences among buyers, suppliers, and customers (Abrahamson &

Fombrun, 1994) in their different host country markets. Although this variety can stimulate innovative activity and knowledge generation (Barkema & Vermeulen, 1998), it also presents a firm with the challenges of developing new capabilities and adapting existing capabilities to its varying competitive environments.

These two challenges are similar to what March (1991) characterized as exploration and exploitation in learning. Exploration, which March defined as experimenting with new alternatives, is analogous to what we have described as the experience-based knowledge generation that enables a multinational firm to overcome liabilities of foreignness and be successful in its new markets (Mitchell, 1994). The experiential process develops specific knowledge about the foreign culture, the institutional environment, and the site in which the firm is investing (Barkema et al., 1996). Exploitation, by contrast, involves the refinement of existing capabilities to a firm's new markets. Exploitation has as its starting point the existing capabilities of the firm, which are then adapted to the new market context.

As we have argued, geographic diversification represents a change in the environment in which a firm operates because foreign subsidiaries operate in diverse national markets. This diversity means that a firm's intangible assets will require a degree of tailoring to the new market setting. Providing the foreign subsidiary is established within a core business of the multinational firm, the scope of change is usually not so large as to render building on existing capabilities impossible (Barkema & Vermeulen, 1998). Hence, we expected that in a geographic diversification made within a firm's core businesses, the firm's intangible assets will have stronger competitive advantages when they have been adapted to the host country. Adaptation occurs with higher levels of a multinational firm's experience in the host country. Thus,

Hypothesis 2b. The relationship between a multinational firm's intangible assets and subsidiary profitability increases with host country experience.

Entry Mode and Subsidiary Performance

Earlier, we stated that one way for a multinational firm to obtain host-country-applicable capabilities is to gain host country experience. A second way is to involve a local entity as an equity partner in the foreign subsidiary (Inkpen & Beamish, 1997). A joint venture represents a combination of complementary resources, with the local partner typi-

cally providing locally applicable skills and capabilities. The addition of the local partner's complementary capabilities reduces a subsidiary's dependence on the multinational's host country experience, particularly as it relates to the exploitation of the multinational's existing assets and the exploration of new capabilities (Hennart, 1988). The reduction in the subsidiary's dependence on the multinational firm's host country experience suggests that in joint ventures, the multinational's host country experience will have less influence on subsidiary profitability than it will in the case of a wholly owned subsidiary.

Although a local partner joint venture introduces valued capabilities to a subsidiary, it also adds a new level of complexity to its management. This complexity in management extends from the challenges of sharing control while cooperating in the venture. The challenges of successfully managing joint ventures are well recognized (Killing, 1983). A principal barrier to successful foreign investment has been the inability of multinational firms to successfully manage international joint ventures (Barkema et al., 1997; Buckley & Casson, 1988). To operate a joint venture successfully, a firm must develop the capabilities to manage a subsidiary in which it has a partner whose interests do not perfectly align with its own (Shenkar & Zeira, 1987). Yet, as with other aspects of a firm's operations, prior experience with this organizational form can help a firm develop capabilities suited to successful management. That is, the capability to work with other firms can be acquired through a firm's previous experience with joint ventures (Barkema, Shenkar, Vermeulen, & Bell, 1997; Mitchell, Shaver, & Yeung, 1994). Hence, we expect that a key competitive advantage for joint ventures is the ability to manage joint ventures effectively, and this should be reflected in higher performance along both dimensions assessed here:

Hypothesis 3a. The greater a multinational firm's experience with joint ventures, the higher the survival likelihood of joint venture entries.

Hypothesis 3b. The greater a multinational firm's experience with joint ventures, the higher the profitability of joint venture entries.

To summarize the above, we describe a process in which a multinational firm gains advantages in its foreign subsidiaries by the application and adaptation of its intangible asset advantages to the host country contexts. Host country experience can counter location-specific disadvantages to improve a subsidiary's likelihood of survival, and it can

contribute to the adaptation of existing intangible assets to improve a subsidiary's competitiveness. Disadvantages can also be offset by involving a local partner in the subsidiary. When a local partner is involved, it renders a multinational firm's host country experience less important as a competitive factor because the local partner provides locally relevant capabilities. Yet the complexity of joint venture management suggests that a key determinant of a joint venture's performance is the multinational firm's ability to manage joint ventures.

METHODS

Sample and Measures

We tested our hypothesis on a sample of Japanese firms derived from the *Analyst's Guide*, a directory of information on domestic nonfinancial firms whose stocks are listed on the first section of the Tokyo Stock Exchange. Given the theoretical framework for this study, a Japanese sample was appropriate for two reasons. First, Japanese firms have been characterized as approaching foreign markets incrementally, with later investments exploiting capabilities built by earlier investments (Chang, 1995). Second, Japanese firms typically implement international joint ventures with a local firm when the motive is to acquire the local firm's host market capabilities (Makino & Beamish, 1998). A Japanese sample also provides a useful complement to previous research on subsidiary survival, which has primarily used European and U.S. samples.

We compiled firm-level data for our sample from three sources. We drew data on employment levels, advertising expenses, and research and development (R&D) expenses from *Kaisha Zaimu Karute*, a publication of Toyo Keizai Inc. This source provided annual data for the 1987–96 period. We identified our sample firms' principal industries by consulting *Principal International Business: The World Marketing Directory* and the *Japan Company Handbook*.

Our list of the foreign subsidiaries for the sample of Japanese firms was drawn from *Kaigai Shinshutsu Kigyō Souran* (Japanese Overseas Investment). This is an annual directory of the foreign investment activities of Japanese firms. Toyo Keizai Inc. compiles this information by conducting an annual mail and telephone survey of major listed and nonlisted Japanese firms and supplements survey information with archival data, where required. The 1997 edition lists 18,203 foreign investments of more than 4,000 firms. To compile our

sample of subsidiaries, we matched the list of Japanese multinational firms in *Kaigai Shinshutsu Kigyō Souran* to that in the *Analyst's Guide*. Our sample of surviving subsidiaries comprised all subsidiaries of the matched firms listed in the 1997 edition. We next searched other editions (1986, 1989, 1992, and 1994) of this data source to identify subsidiaries listed in earlier editions but not in the 1997 edition. These delisted subsidiaries were treated as exits because Toyo Keizai's survey captures almost all cases of Japanese foreign investment for firms that responded to the survey (Yamawaki, 1991). This process produced a base sample of 12,204 subsidiaries.

From this base sample, we selected all "greenfield" subsidiaries that were engaged in manufacturing operations and were not business diversifications. We utilized these criteria to develop a sample in which the multinational firms' intangible assets were applicable to the subsidiaries' operations. In a business diversification, the underlying marketing or technological assets of a multinational firm might not apply to a subsidiary's operations (Chang, 1996). The manufacturing subsidiary criterion ensured that small sales subsidiaries and other subsidiaries engaged in service activities, for whose operation technological assets might not be highly applicable, were not present in the sample.

We further refined the sample in view of our goal of selecting exiting subsidiaries for which exit conformed to a definition of failure. The definition of subsidiary exit we used to compile the base list of exits is comparable to that employed in previous research (Barkema et al., 1997; Mitchell et al., 1994; Pennings et al., 1994), but it includes exits by divestiture and dissolution. To maximize the likelihood that exiting subsidiaries were failed subsidiaries, we restricted the sample to subsidiaries founded after 1986 that had been in existence for less than ten years. We selected a cut-off of ten years because Japanese managers report it takes 10 to 15 years to unfold their full investments (Tachiki, 1999). Further, compared to U.S. firms, Japanese firms generally have a longer time horizon for direct investments (Thomas & Waring, 1999). Hence, we believe a ten-year period provides a reasonable estimate of failure based upon the typical investment horizons of Japanese firms. Further, the results for our empirical tests were similar whether a period of subsidiary existence of ten years duration or a more conservative period of seven years duration was used to define the sample. Using these selection criteria, for the survival analysis, we compiled a sample of 3,080 subsidiaries (with 650 exits) of 641 firms. The 641 multi-

national firms had a mean annual sales revenue in 1996 of 342 billion yen (U.S. \$2.92 billion).

We next constructed the sample for the profitability analysis. From the sample of 12,204 subsidiaries, we selected all nondiversifying, greenfield manufacturing subsidiaries that survived until 1996 and reported on profitability. This sample comprised 1,656 subsidiaries. A *t*-test on number of employees revealed no significant differences in the sizes of subsidiaries that reported profitability and those that did not.

The measure of subsidiary profitability was based on a managerial assessment of profitability that has been demonstrated to have construct validity (Dess & Robinson, 1984). The subsidiary's general manager or the equivalent provided this assessment in response to a question in Toyo Keizai's survey. The profitability question asked the subsidiary general manager to classify the financial performance of the subsidiary in 1996 into one of three categories: loss, breakeven, or gain. The classification was an absolute assessment of profitability made without reference to other subsidiaries of the multinational to which the given subsidiary belonged.

Because the profitability measure had a single item, we examined reliability using an assessment similar to the parallel form test (Trochin, 2000). We made two separate assessments of reliability, each of which involved a comparison between the value reported in our source and a question in a different survey that asked managers to rank subsidiary profitability along an ordinal scale. The first assessment was based on a survey used in a study of the performance of Japanese subsidiaries in China (Isobe, Makino, & Montgomery, 2000). These authors compared the responses of Chinese managers on a five-point Likert scale assessing profitability to the responses of Japanese managers reported in *Kaigai Shinshutsu Kigyō Souran*. Analysis of the 43 responses showed a correlation of .55 ($p < .01$) between the two measures. The second assessment came from our 1999 survey of Japanese general managers in 72 Thai subsidiaries. The item in this survey was a seven-point Likert scale. The correlation between this item and profitability as reported by the same subsidiaries in *Kaigai Shinshutsu Kigyō Souran* (1999) was .64 ($p < .01$). These two assessments show some evidence of reliability for the profitability measure.

For our independent and control variables, we constructed measures of experience, asset expenditure intensities, firm size, and subsidiary age. Caves (1996) defined an intangible asset as knowledge, technological or otherwise, that is unique to a firm. An intangible asset might also

take the form of a trademark, patent, or brand. Following this definition and standard practices, we measured firms' intangible assets using two expenditure intensity terms, one for R&D and one for advertising intensity. We defined these terms as the ratio of firm-level expenditures on R&D and advertising to total sales, averaged for 1991–96 (Chang, 1995). The expenditure flow measures the stock of accumulated *technological assets* and *advertising assets* (Dierickx & Cool, 1989) and conforms with Cave's (1996) concept of an intangible asset.

We defined two measures of experience. We constructed the *host country experience* measure as a logarithmic transformation of the number of years of investment history a firm had in the host country at the end of 1996 for surviving subsidiaries, or at the time the subsidiary exited (Ingram & Baum, 1997). To determine the number of years of investment history, we first identified all subsidiaries formed by the firm, using the sample of 12,204 subsidiaries. For each of these subsidiaries, we calculated the difference between its founding date and the last date of observation. We summed these values to create the host country experience measure, which was then logarithmically transformed. To compute the *mode experience* measure, we used the firm's investment history with joint ventures when the entry was a joint venture and used its investment history with wholly owned subsidiaries when it made an independent entry. This measure had the same operational definition as the host country experience team. A joint venture was an entry in which a Japanese firm and a local firm each held at least 5 percent of the subsidiary's equity. Wholly owned subsidiaries had 95 percent or greater equity ownership by one firm. Results were qualitatively the same for a 20 percent equity ownership criterion.

Following previous studies, we used controls for firm size and subsidiary age (Dunning, 1993; Grant, Jammie, & Thomas, 1988; Tallman & Li, 1996). These measures followed standard practices, with size defined as a logarithmic transformation of the number of employees in the subsidiary (in 1996) or the parent firm (average for 1991–96). Age was the number of years since subsidiary foundation. We included fixed effects at the two-digit manufacturing level and for the region of entry.

Empirical Tests

Our preliminary analysis of the hazard rates showed a peak in exits in the first three to four years of subsidiary operations and then a gradual decline over time. This distribution of the hazard

function resembles a “lognormal” or “log-logistic” curve. Because we were able to estimate the shape of the hazard function, we used a parametric event history model. We ran four duration models—Weibull, exponential, lognormal, and log-logistic—and compared chi-square statistics to evaluate which model had the best fit (Greene, 1997). Parameter estimates were similar across models. The lognormal had the best fit, and we report those results.

We utilized ordered “logit” analysis to test the relationship between the independent variables and subsidiary profitability. An ordered logit model is a qualitative choice model and is an appropriate procedure when the dependent variable has ordinal properties but is not ratio-scaled (Amemiya, 1981).

RESULTS

Table 1 presents descriptive statistics and a correlation matrix. As might be expected, the two experience terms were correlated at .38. Excluding region dummies, the highest correlation was between parent firm size and host country experience ($r = .40$). With sample sizes close to 1,000 and moderate to low correlations across the indepen-

dent variables, we concluded collinearity did not threaten the coefficient estimates in Table 2.

Table 2 presents all results. Models 1 and 2 report the survival analysis. Models 3 to 6 show the profitability analysis. To promote comparability, in each model we used a similar baseline specification that included intangible assets, host country and mode experience, organizational characteristics, and the region and industry dummies. Models 1, 3, and 5 are tests of hypotheses using a sample of wholly owned subsidiaries. Models 2, 4, and 6 test the joint venture sample.

Hypothesis 1a predicts a positive relationship between intangible assets and subsidiary survival. The positive and significant coefficients on the advertising and technological asset measures in model 1 support this hypothesis. The positive sign on technological assets ($p < .01$) in model 2 also provides support, although advertising assets' coefficient is not significant. Hypothesis 1b predicts intangible assets are positively associated with subsidiary profitability. The positive coefficients on technological assets in models 3 ($p < .01$) and 4 ($p < .05$) are consistent with Hypothesis 1b. However, the coefficient on advertising assets is negative in model 3 ($p < .10$) and nonsignificant in

TABLE 1
Correlations, Means, and Standard Deviations^a

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11
Intangible assets													
1. Advertising	0.01	0.01											
2. Technological	0.02	0.03	.11										
Experience													
3. Host country experience	32.80	72.76	.04	.05									
4. Mode experience	208.54	440.70	-.06	.00	.38								
Organizational characteristics													
5. Subsidiary size	180.12	367.57	-.01	-.00	-.06	-.16							
6. Subsidiary age	4.46	2.74	.02	.03	.12	.07	-.10						
7. Parent firm size ^b	4,628.60	8,063.90	-.05	.22	.40	.35	-.02	.18					
Region dummies													
8. Asia	0.56	0.50	-.04	-.03	-.08	.05	-.30	.21	-.06				
9. Europe	0.15	0.35	.04	.05	-.11	.03	.17	-.07	-.01	-.47			
10. North America	0.25	0.43	-.03	.02	.19	-.08	.17	-.17	.06	-.64	-.24		
Mode variable													
11. Entry mode ^c	0.55	0.50	-.05	-.05	.00	.00	-.28	.12	.01	.44	-.22	-.28	
Performance													
12. Survival dummy	0.79	0.41	.04	.05	.07	.09	-.16	.08	-.01	.27	-.06	-.23	-.10
13. Profitability ^d	2.19	0.86	-.06	-.06	.13	-.07	.21	-.06	-.01	.30	-.06	.23	-.08

^a $n = 3,080$; correlations greater than .05 or less than $-.05$ are significant at the .05 level.

^b $n = 641$.

^c Joint venture = 1.

^d Profitability ($n = 1,656$) is an ordinal measure. The mean represents an average response across three categories. A value of 1 marked loss (29.2 percent of subsidiaries); 2 was used for breakeven (23.0 percent of subsidiaries), and 3 for gain or profit (47.8 percent of subsidiaries).

TABLE 2
Subsidiary Survival and Profitability^a

Variable	Survival Analysis ^b				Ordered Logistic Regression for Profitability ^c							
	Model 1: Wholly Owned Subsidiaries		Model 2: Joint Ventures		Model 3: Wholly Owned Subsidiaries		Model 4: Joint Ventures		Model 5: Wholly Owned Subsidiaries		Model 6: Joint Ventures	
Intangible assets												
Advertising	5.80**	(2.02)	1.71	(2.09)	-6.17 [†]	(3.49)	-0.03	(2.78)	-3.51*	(1.70)	-2.15	(5.12)
Technological	4.23***	(0.91)	2.12**	(1.01)	6.86**	(2.54)	0.04*	(0.02)	6.28**	(2.40)	0.04 [†]	(0.02)
Experience												
Host country ^d	0.04***	(0.01)	0.08***	(0.02)	-0.01	(0.01)	0.01	(0.54)	-0.01	(0.01)	0.01	(0.27)
Mode ^d	0.14***	(0.02)	0.14***	(0.02)	0.01	(0.00)	0.02*	(0.01)	0.01	(0.01)	0.02*	(0.01)
Host country × advertising									10.14**	(3.70)	0.14	(0.33)
Host country × technological									3.45	(0.70)	0.07	(0.11)
Organizational characteristics												
Subsidiary age					0.02***	(0.01)	0.03***	(0.01)	0.01**	(0.00)	0.03***	(0.01)
Subsidiary size	0.05**	(0.02)	0.10***	(0.02)	0.11***	(0.03)	0.10***	(0.03)	0.11***	(0.03)	0.10***	(0.03)
Parent firm size	-0.16***	(0.03)	-0.11***	(0.03)	0.04	(0.05)	-0.00	(0.04)	0.04	(0.05)	-0.01	(0.04)
Region dummies												
Asia	0.55***	(0.10)	0.63**	(0.18)	0.43**	(0.14)	0.46***	(0.13)	0.44**	(0.14)	0.46***	(0.13)
Europe	-0.01	(0.11)	-0.08	(0.20)	0.06	(0.15)	0.14	(0.18)	0.08	(0.15)	0.14	(0.18)
North America	-0.18	(0.11)	-0.18	(0.19)	0.00	(0.13)	0.17	(0.17)	0.02	(0.14)	0.17	(0.17)
Log-likelihood	-1,513.55		-2,305.34		-696.54		-784.20		-690.14		-783.88	
Model chi-square	353.50***		405.54***		124.08***		114.38***		136.88***		115.02***	
Incremental chi-square									12.80**		0.64	
Number of cases	1,375		1,705		728		928		728		928	
Number of exits	350		300									

^a Cell entries are unstandardized coefficient estimates. Numbers in parentheses are standard errors. Model intercepts are not reported. Fixed effects for two-digit Standard Industrial Classification codes for industries of entry were included in the models but are not reported.

^b In these models, survival = 1.

^c In these models, profit = 3, breakeven = 2, and loss = 1.

^d Logarithmic transformation.

[†] $p < .10$

* $p < .05$

** $p < .01$

*** $p < .001$

model 4. Taken together, the results for intangible assets partially support Hypothesis 1b.

The second set of hypotheses concern the relationship between host country experience and subsidiary performance. Hypothesis 2a predicts a positive relationship between survival and host country experience. The parameter estimate for host country experience is highly significant ($p < .001$) and in the predicted direction in models 1 and 2. Hypothesis 2b predicts a contingent effect between host country experience and profitability, in which a positive association will be observed where intangible assets are greater. We also did not expect a “main effect” between host country experience and profitability. The lack of a main effect is evident in models 3 and 4, in which host country experience has no observable relationship with profitability. Model 5 is a test for the contingency using interactions between host country experience and the two measures of intangible assets. The in-

cremental chi-square for model 5 shows that the fit of this model improved over that of the baseline model, model 3. The improvement extends from the significance of the coefficient on the host country experience and advertising assets interaction ($p < .01$). This results support Hypothesis 2b. However, the host country experience and technological assets interaction was not significant.

Hypotheses 3a and 3b address the case of these relationships for joint venture entries. Hypotheses 3a and 3b respectively predict that joint venture experience positively influences survival and profitability. The positive coefficients for mode experience in model 2 ($p < .001$) and models 4 and 6 ($p < .05$) support Hypotheses 3a and 3b. By comparison, mode experience in the wholly owned sample had a positive influence ($p < .001$) on survival in model 1, but it had no relationship with profitability (models 3 and 5). Finally, the lack of a significant interaction in model 6 supports our expectation

that host country experience has a lower influence on profitability for joint ventures than for wholly owned subsidiaries.

Largely, the results for the organizational characteristics variables were consistent with prior research (Barkema et al., 1996; Hennart, Kim, & Zeng, 1998). Subsidiary age and subsidiary size had significant and positive associations with profitability, with significance levels ranging from .01 to .001. Subsidiary size was also positively and significantly related to survival in models 1 and 2. Meanwhile, the multinational parent firm's size had no observable relationship with subsidiary profitability in models 3 to 6, and it had a negative relationship with survival ($p < .001$) in the wholly owned and joint venture samples. We investigated whether this negative relationship was related to the positive correlation between the two experience measures and firm size, but the negative estimate was robust in models excluding the two experience measures. This relationship shows that the subsidiaries of smaller Japanese firms were more likely to survive than those of larger Japanese firms.

DISCUSSION

This study presents a unique approach to examining the foreign market performance of multinational firms. It compared how a multinational firm's host country experience and its intangible assets influenced two measures of subsidiary performance—survival and profitability. By demonstrating that these two distinct measures of subsidiary performance have substantively different antecedents, the results suggest that firms undertaking geographical diversification must not only develop new capabilities to overcome liabilities of foreignness, but must also adapt existing intangible asset advantages to be competitive in a new market context. When a firm makes a wholly owned entry, host country experience influences subsidiary survival but does not have an independent relationship with profitability. Instead, host country experience contributes to the adaptation of intangible assets in a manner that positively influences a subsidiary's profitability.

The distinctness of subsidiary survival and profitability as performance outcomes was reflected in the divergent influences that experience had on these two measures. Researchers evaluating international strategy and the performance of foreign subsidiaries have drawn conclusions about subsidiary performance on the basis of relationships various forms of experience and other firm characteristics have with subsidiary survival. The

justification for the use of survival as a performance measure has been based on its modest correlation with subsidiary profitability (Barkema et al., 1997; Mitchell et al., 1994). Our evidence suggests that researchers investigating subsidiary performance and international strategy could achieve a better and more complete understanding of the outcomes of a multinational firm's strategic decisions by focusing on subsidiary profitability in addition to survival.

At a broader level, our results are consistent with a key tenet in an evolutionary perspective on multinational enterprise: that a firm's capabilities and strategies are continually changing and are molded by its investment and market activities. We identified two ways in which a firm's capabilities are shaped by its investment experience. First, like previous researchers, we found that host country experience positively influenced survival likelihoods. This result concurs with the notion that experience increases a firm's familiarity with a host country and thereby reduces its associated liability of foreignness (Barkema et al., 1996; Barkema et al., 1997; Mitchell et al., 1994). We also found that host country experience did not independently influence subsidiary profitability. This finding supports the idea that host country experience is insufficient to establish market competitiveness if it only generates a better understanding of the host country market.

Although host country experience did not have an independent relationship with foreign subsidiary profitability, we found that a multinational firm's ability to exploit its intangible assets was contingent on its level of host country experience. This relationship is the second aspect of our depiction of a multinational firm's evolution, the process of adapting existing assets to the new market context. We found this adaptation to be relevant for advertising assets but not for technological assets. The ability of the multinational firm to establish host market competitiveness on the basis of its technological assets was independent of its level of host country experience. We suggest this independence is a function of technological assets' greater fungibility across geographic borders, as compared to advertising assets (Anand & Singh, 1997). Our finding implies technological assets require little adaptation to be applicable in a new host country market. Advertising assets are, however, less fungible and require adaptation to a new host country setting (Anand & Delios, 2002). The process of adaptation requires time (Dierickx & Cool, 1989) and experience in a host country. The necessity of adapting advertising assets to the host country context is also consistent with the finding that, for

Japanese multinational firms, the possession of advertising assets is not related to levels of corporate profitability (Delios & Beamish, 1999).

In our analysis, we found entry mode to be an important moderating factor in the intangible assets, experience, and subsidiary performance relationships. In contrast to the results for our sample of wholly owned subsidiaries, in the joint ventures the levels of a firm's host country experience and advertising assets did not have joint or independent influences on profitability. However, in joint ventures, host country experience did maintain a strong relationship with subsidiary survival. Experience with the joint venture mode, meanwhile, was a determinant of subsidiary profitability, as well as an influence on subsidiary survival. This result can be contrasted to the finding that the international joint venture experience of Dutch firms had no relationship to international joint venture survival, even though domestic joint venture experience did (Barkema et al., 1997). Barkema and his colleagues (1997) attributed this finding to Dutch firms still being "high on the learning curve" for international joint venture management. Applying this explanation to the findings in this study suggests Japanese firms have progressed further down the learning curve in joint venture management, as our sample of Japanese firms derived positive performance outcomes from joint venture experience. This explanation complements observations that Japanese firms have a higher propensity to implement joint ventures than firms from other nations, such as the United States (Beamish, Delios, & Lecraw, 1997).

Limitations and Future Directions

Two limitations of this study should be noted. First, although the sample extends the scope of research to firms based in Japan, the results may be moderated by Japanese firms' noted propensities to utilize joint ventures, as well as by the sequential investment strategy typically implemented by Japanese firms. Future research could provide insight into the applicability of the results of this study for samples drawn from other settings. Second, we conducted our study with measures derived from archival sources. A useful extension would be to develop and use measures of resources, capabilities, and performance compiled at the subsidiary level.

Research has shown that product and multinational diversity are two key elements of a firm's strategic posture (Barkema & Vermeulen, 1998; Tallman & Li, 1996). Addressing these forms of diversity jointly, rather than controlling for product

diversity, as we did in this study, is a potentially fruitful approach to exploring experience, capability, and performance relationships. Diversity could also be examined from a resource or asset perspective (Chang, 1996; Chatterjee & Wernerfelt, 1991) as in this study, rather than with the traditional approach of defining diversity via product-level comparisons (Rumelt, 1974). Another potential direction involves treating profitability and survival as related outcomes. Future work should integrate these two performance outcomes in a study that positions profitability as an outcome of one set of variables and then treats it as an endogenous influence in a model of survival.

Conclusion

This study extended ideas based on an evolutionary perspective on multinational enterprise to develop a unique approach to the study of the performance of foreign subsidiaries. It evaluated two distinct performance outcomes—survival and profitability—against a multinational firm's possession of intangible assets and its host country and mode experience. A major implication of the results is that researchers should not consider survival and profitability as identical performance outcomes for subsidiaries of multinational firms when evaluating the outcomes of these firms' strategic actions. The implication from a theoretical perspective is that a multinational firm's experience contributes in two ways to the success of international expansion. Experience generates new capabilities that help offset the liability of foreignness. Experience also contributes to the adaptation of existing intangible assets to improve a foreign subsidiary's host market competitiveness. A key contingency in the experience and performance relationships concerns the strategic choice of whether to enter using a local partner joint venture. The perspective we offer concerning host country experience, intangible assets, and entry mode choice should help develop future studies that explore determinants of the success of expansion into new geographic or product markets.

REFERENCES

- Abrahamson, E., & Fombrun, C. J. 1994. Macrocultures: Determinants and consequences. *Academy of Management Review*, 19: 728–755.
- Amemiya, T. 1981. Qualitative response models: A survey. *Journal of Economic Literature*, 19: 1483–1536.
- Anand, J., & Delios, A. 2002. The role of upstream and downstream capabilities in determination of interna-

- tional entry mode. *Strategic Management Journal*: Forthcoming.
- Anand, J., & Singh, H. 1997. Asset redeployment, acquisitions and corporate strategy in declining industries. *Strategic Management Journal*, 18(special issue): 99–118.
- Barkema, H. G., Bell, J. H. J., & Pennings, J. M. 1996. Foreign entry, cultural barriers and learning. *Strategic Management Journal*, 17: 151–166.
- Barkema, H. G., Shenkar, O., Vermeulen, F., & Bell, J. H. J. 1997. Working abroad, working with others: How firms learn to operate international joint ventures. *Academy of Management Journal*, 40: 426–442.
- Barkema, H. G., & Vermeulen, F. 1998. International expansion through start-up or acquisition: A learning perspective. *Academy of Management Journal*, 41: 7–26.
- Barney, J. B. 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17(1): 99–120.
- Beamish, P. W. 1988. *Multinational joint ventures in developing countries*. London and New York: Routledge.
- Beamish, P. W., Delios, A., & Lecraw, D. 1997. *Japanese multinationals in the global economy*. Cheltenham, England: Edward Elgar.
- Buckley, P. J., & Casson, M. 1988. A theory of cooperation in international business. In F. J. Contractor & P. Lorange (Eds.), *Cooperative strategies in international business*: 31–55. Lexington, MA: Lexington Books.
- Caves, R. E. 1971. International corporations: The industrial economics of foreign investment. *Economica*, 38: 1–27.
- Caves, R. E. 1996. *Multinational enterprise and economic analysis* (2nd ed.). Cambridge, England: Cambridge University Press.
- Chang, S. J. 1995. International expansion strategy of Japanese firms: Capability building through sequential entry. *Academy of Management Journal*, 38: 383–407.
- Chang, S. J. 1996. An evolutionary perspective on diversification and corporate restructuring: Entry, exit and economic performance, 1981–89. *Strategic Management Journal*, 17: 587–611.
- Chatterjee, S., & Wernerfelt, B. 1991. The link between resources and type of diversification: Theory and evidence. *Strategic Management Journal*, 12: 33–48.
- Delios, A., & Beamish, P. W. 1999. Geographic scope, product diversification and the corporate performance of Japanese firms. *Strategic Management Journal*, 20: 711–728.
- Dess, G. G., & Robinson, R. B. 1984. Measuring organizational performance in the absence of objective measures: The case of the privately held firm and the conglomerate business unit. *Strategic Management Journal*, 5: 265–273.
- Dierickx, I., & Cool, K. 1989. Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35: 1504–1511.
- Dunning, J. H. 1993. *Multinational enterprises and the global economy*. Don Mills, Ontario: Addison-Wesley.
- Florida, R., & Kenney, M. 1991. Transplanted organizations: The transfer of Japanese industrial organization to the U.S. *American Sociological Review*, 56: 381–398.
- Geringer, J. M., Beamish, P. W., & daCosta, R. C. 1989. Diversification strategy and internationalization: Implications for MNE performance. *Strategic Management Journal*, 10: 109–119.
- Grant, R. M., Jammine, A. P., & Thomas, H. 1988. Diversity, diversification, and profitability in British manufacturing companies, 1972–84. *Academy of Management Journal*, 31: 771–801.
- Greene, W. H. 1997. *Econometric analysis* (3rd ed.). Upper Saddle River, NJ: Prentice-Hall.
- Hennart, J. F. 1988. A transaction cost theory of equity joint ventures. *Strategic Management Journal*, 9: 483–497.
- Hennart, J. F., Kim, D. J., & Zeng, M. 1998. The impact of joint venture status on the longevity of Japanese stakes in U.S. manufacturing affiliates. *Organization Science*, 9: 382–395.
- Hitt, M. A., Hoskisson, R. E., & Kim, H. 1997. International diversification. Effects on innovation and firm performance in product-diversified firms. *Academy of Management Journal*, 40: 767–798.
- Hymers, S. H. 1976/1960. *International operations of national firms—A study of direct foreign investment*. Cambridge, MA: MIT Press.
- Ingram, P., & Baum, J. A. C. 1997. Chain affiliation and the failure of Manhattan hotels, 1898–1980. *Administrative Science Quarterly*, 42: 68–102.
- Inkpen, A., & Beamish, P. W. 1997. Knowledge, bargaining power, and the instability of international joint ventures. *Academy of Management Review*, 22: 177–203.
- Isobe, H., Makino, S., & Montgomery, D. 2000. Resource commitment, entry timing, and market performance of foreign direct investments in emerging economies: The case of Japanese international joint ventures in China. *Academy of Management Journal*, 43: 468–484.
- Johanson, J., & Vahlne, J. E. 1977. The internationalisation process of the firm—A model of knowledge development and increasing market commitments. *Journal of International Business Studies*, 8(1): 23–32.

- Killing, J. P. 1983. *Strategies for joint venture success*. New York: Praeger.
- Kogut, B. 1983. Foreign direct investment as a sequential process. In C. P. Kindleberger (Ed.), *The multinational corporations in the 1980s*: 147–167. Cambridge, MA: MIT Press.
- Kogut, B., & Zander, U. 1993. Knowledge of the firm and the evolutionary theory of the multinational corporation. *Journal of International Business Studies*, 24: 625–645.
- Madhok, A. 1997. Cost, value and foreign market entry mode: The transaction and the firm. *Strategic Management Journal*, 18: 39–61.
- Makino, S., & Beamish, P. W. 1998. Performance and survival of joint ventures with nonconventional ownership structures. *Journal of International Business Studies*, 29: 797–819.
- March, J. G. 1991. Exploration and exploitation in organizational learning. *Organization Science*, 2(special issue): 71–87.
- Mishra, C. S., & Gobeli, D. H. 1998. Managerial incentives, internalization, and market valuation of multinational firms. *Journal of International Business Studies*, 29: 583–598.
- Mitchell, W. 1994. The dynamics of evolving markets: The effects of business sales and age on dissolutions and divestitures. *Administration Science Quarterly*, 39: 575–602.
- Mitchell, W., Shaver, J. M., & Yeung, B. 1994. Foreign entrant survival and foreign market share: Canadian companies' experience in United States medical sector markets. *Strategic Management Journal*, 15: 555–567.
- Morck, R., & Yeung, B. 1992. Internalization: An event study test. *Journal of International Economics*, 33(1–2): 41–56.
- Morck, R., & Yeung, B. 1998. *Why firms diversify: Internalization versus agency behavior*. Ann Arbor: University of Michigan Business School.
- Pennings, J. M., Barkema, H. G., & Douma, S. W. 1994. Organizational learning and diversification. *Academy of Management Journal*, 37: 608–640.
- Rugman, A. M. 1982. *New theories of the multinational enterprise*. New York: St. Martin's.
- Rumelt, R. P. 1974. *Strategy, structure, and economic performance*. Cambridge, MA: Harvard University Press.
- Shenkar, O., & Zeira, Y. 1987. International joint ventures: Implications for organisation development. *Personnel Review*, 16(1): 30–37.
- Taekichi, D. S. 1999. Modes of corporate internationalization: Japanese FDI strategies in Asia-Pacific. In D. Dirks, J-F. Huchet, & T. Ribault (Eds.), *Japanese management in the low growth era*: 73–89. Berlin: Springer-Verlag.
- Tallman, S., & Li, J. T. 1996. Effects of international diversity and product diversity on the performance of multinational firms. *Academy of Management Journal*, 39: 179–196.
- Teece, D. J. 1977. Technology transfer by multinational firms: The resource cost of transferring technological know-how. *Economic Journal*, 87: 242–261.
- Thomas, L. G., & Waring, G. 1999. Competing capitalisms: Capital investment in American, German and Japanese firms. *Strategic Management Journal*, 20: 729–748.
- Trochim, W. 2000. *The research methods knowledge base* (2nd ed.). Cincinnati: Atomic Dog Publishing.
- Yamawaki, H. 1991. Exports and foreign distributional activities: Evidence on Japanese firms in the United States. *Review of Economics and Statistics*, 73: 294–300.

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