

BARGAINING POWER, OWNERSHIP, AND PROFITABILITY OF TRANSNATIONAL CORPORATIONS IN DEVELOPING COUNTRIES

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Abstract. As the bargaining power of the transnational corporations (TNCs) in the sample increased relative to the bargaining power of the host country, and as the desire of the TNCs for a high level of equity ownership increased, the percent equity ownership of the TNCs in their subsidiaries increased. The relationship between percent equity ownership and subsidiary success from the TNCs' viewpoint, however, was J-shaped. High and low levels of equity ownership were associated with high levels of success. Control of critical operational variables by the TNC was directly related to success.

■ Over the past 20 years there has been continuing controversy over the determinants and effects of different patterns of ownership and control of the subsidiaries of transnational corporations (TNCs) in less developed countries (LDCs). Some countries such as Singapore and Hong Kong place virtually no restrictions on the percentage of equity ownership held by TNCs in most sectors of their economies; others place severe restrictions on equity ownership by TNCs and prohibit it outright in many sectors of their economy; others require that foreign ownership be reduced or phased out over time. One of the advantages of foreign direct investment (FDI) sometimes cited by TNCs based in Japan and in LDCs is the generally higher level of equity participation they have given to investors in the host country [Lecraw 1977, 1981; Wells 1983]. The reasons expressed by host governments for encouraging (or insisting on) local equity participation are complex and sometimes contradictory, ranging from better access to information, and control of payments for technology transfer and management fees, to control over pricing of output and intracompany trade, reinvestment, and remittance of profits and capital.¹ As importantly, a high level of foreign ownership may carry significant political costs for the host government quite apart from its economic impact.

Recently, Fagre and Wells [1982] have used a bargaining power framework to explore the relationship between the characteristics of a TNC (size, intrafirm transfers, advertising and R&D intensities, and product diversity) and the percent equity ownership position that TNCs achieved in their subsidiaries in the host country.² The first step of the analysis in this paper replicates this work using a different data set and extends the analysis to include additional characteristics of the host country and of TNCs that might influence their relative bargaining power. Poynter [1982] has shown that a TNC may find it advantageous to bargain not for increased equity ownership, but for control over the variables critical to the success of the subsidiary from the TNC's viewpoint. The second step of the analysis relates the relative bargaining power of a TNC and of the host government (as proxied by their characteristics) to the degree of control the TNC exercised over its subsidiary in the host country.

INTRODUCTION

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Finally, Killing [1982] has shown that there is a link between the profitability (success) of a TNC's subsidiary and the division of overall control between the TNC and its local partners. The third step of the analysis of the paper examines the TNC's control over several of the functions within its subsidiary—marketing, finance, technology, production, imports, exports, and so on—evaluates the importance of control over these functions to the TNC, and analyzes the relationship between the TNC's control over these critical success variables and the success of the subsidiary from the TNC's viewpoint.

The research presented here links what had previously been 3 separate areas of analysis into a more unified framework, and tests hypotheses that are generated by this framework on a common data set. In this way, this research both supports and extends the work of Fagre and Wells, Killing, and Poynter.

The conclusions in this paper are based on data gathered from 153 subsidiaries of TNCs that operated in 6 manufacturing industries in the 5 countries of the ASEAN region: Thailand, Malaysia, Singapore, Indonesia, and the Philippines. These countries vary greatly in income levels, size of the domestic market, resource base, development strategies, and policies toward FDI. The TNCs in the sample were based in the United States, Europe, Japan, and several LDCs. The sample then may give a good basis on which to reach generalizations concerning the determinants of ownership and control of the subsidiaries of TNCs in LDCs, and concerning the effects of ownership and control on the success of these investments.

The next section sets out the theoretical framework for the analysis. The third section describes the methodology and tests the hypotheses generated from the theory. The fourth section draws some implications from the analysis for policy of both TNCs and host governments.

THEORETICAL FRAMEWORK

In the pioneering work of Vernon [1971], Stopford and Wells [1972], and Franko [1971], 4 factors were seen as major determinants of the level of equity ownership of TNCs in their subsidiaries: the desired ownership level of the TNC; the bargaining power of the TNC; the desired level of local equity participation of the host country; and the bargaining power of the host government (including the bargaining power of locally-owned firms in the host country). Analysis of the determinants of equity participation in terms of the relative bargaining power and the equity ownership policies of the TNC and the host country governments has proved to be a fruitful approach and will be used in the first part of the analysis of this paper.

Over the past 10 years several authors have developed a comprehensive theory of the international activities of firms that can be used to analyze the decision of a firm on the mode of its international activity: exports, licensing, or FDI.³ In order to operate internationally, a firm must possess firm-specific (ownership) advantages in technology, production, marketing, finance, and management that allow it to compete with firms in the market for goods and services abroad. These firm-specific advantages are often due to the country-specific advantages of the firm's home country: natural resources, market size, income level, and factor costs. The host country possesses advantages in location as well in its natural resources, markets, and factor costs.

A TNC will undertake FDI when 3 conditions are met: when its firm-specific advantages allow it to compete in the host country; when the host country has advantages that are attractive to the TNC; and when the advantages of internalizing the transaction within the firm by FDI are greater than the advantages of transferring the goods and services it possesses via the market for exports or licenses of its technology (broadly defined to include all forms of the firm's expertise, including brand names). The stronger the internalization advantages

for the firm, the greater will be its desire to use FDI as the mode of its international activity and the greater its desire to retain ownership in its subsidiary abroad to appropriate the return earned on these advantages.

Placed into a bargaining framework, firm-specific advantages may give the TNC bargaining power over the host country; internalization advantages influence its desire to retain ownership and control over the appropriation of the returns of its subsidiary.⁴ The desired ownership structure of a TNC for its subsidiaries in LDCs is then a function of its firm-specific advantages, internalization advantages, and host country advantages. Several of these factors have been described at length elsewhere and will be only briefly outlined here.⁵

Internalization advantages for an R&D-intensive TNC may be great if, as is often the case, the market for its technology is not perfect due to asymmetric information [Killing 1980]. R&D-intensive TNCs, therefore, often prefer to exploit their firm-specific advantages by internalizing the transaction through FDI in wholly-owned subsidiaries rather than via the market for technology. Possession of a proprietary product or technology may also increase the bargaining position of a TNC over the host government, particularly if other TNCs or local investors cannot supply technology of the same type or level of advancement.

As with technology, the external market for marketing skills and brand names is often imperfect. Faced with these imperfections, marketing-intensive TNCs often choose to exploit their firm-specific advantages by internalizing the transaction through FDI (again in wholly-owned subsidiaries in order to appropriate the return) rather than via the market for licensing brand names or products. Such firms may have the ability to develop a marketing package that is independent of the country in which they operate, may place little value on inputs from local partners in the form of marketing expertise and access to channels of distribution, and may fear loss of control over product quality [Horst 1974].

In the past, considerable emphasis has been placed on TNCs as providers of scarce capital resources at costs lower than those available to local investors in LDCs. Unless a TNC is willing to change its strategy to become a financial intermediary making portfolio loans or investments, it can only exploit this firm-specific advantage—access to relatively inexpensive capital—by internalizing the transaction via FDI.⁶ The lower the cost of capital for the TNC relative to capital costs in the host country, the greater are the internalization advantages for the TNC. If capital is indeed a scarce resource that can best be provided by the TNC, its bargaining power and hence its level of equity participation might increase with the size of the investment (in terms of assets) and the investment's capital intensity.

Another source of bargaining power for the TNC may be its ability to sell the output of its subsidiary in the host country on export markets, either to other units of the TNC, to independent firms, or through its own channels of distribution in markets in other countries. The TNC's access to export markets may become an especially important bargaining chip if the host country is following a development strategy based on export-led growth. TNCs have the choice of exploiting their firm-specific advantage—access to export markets—via FDI or by serving as a trading company for exports of locally-owned firms in the host country. The decision whether to exploit proprietary expertise in international trade via the market as trading firms or to internalize it via FDI is a complex one, and not well understood. [See Moxon 1983; and Lecraw's comments on Moxon's paper, 1983b.] Moxon, writing about export platform FDI, concluded on theoretical grounds that firms will undertake FDI based on a firm-specific advantage in access to export markets "when the parent possesses a complete package of export marketing and technological advantage, and where the costs of operation and control of the subsidiary do not offset these advantages."

Management expertise is another firm-specific advantage which TNCs may

provide to their subsidiaries in the host country and which may increase their bargaining power. Conversely, host governments may push for increased local equity participation in order to increase the management expertise of their entrepreneurs and managers. Quantifying the effect of "management expertise" on the bargaining power of TNCs is difficult. Host governments also have difficulty in assessing the value of this expertise for the local subsidiary and the host economy. As the complexity of the managerial technology increases, however, the advantages of internalizing the transfer via FDI may increase, thereby increasing the TNC's desire to exploit its firm-specific advantage via FDI and its desire for a high degree of equity ownership and control.

Finally, the desire of a TNC to exploit its firm-specific advantages via FDI may depend on the managerial (or other) resources the firm has available to commit to the subsidiary. For example, a small, fast-growing firm may not have excess managerial capacity or financial resources to use for the investment, operation, and control of a subsidiary in an LDC. In this case, it may find that licensing or exports are the most profitable means by which it can exploit its firm-specific advantages in proprietary technology, marketing, and management. By extension, such a firm may be more apt to be satisfied with minority equity participation rather than commit its scarce financial and managerial assets to acquire and control a higher percentage of the equity in its foreign subsidiaries.

The preceding analysis implicitly assumed that TNCs use their bargaining power to achieve their desired level of equity participation in their subsidiaries in LDCs in order to appropriate the highest possible share of the return on their firm-specific advantages by internalizing the transactions within the firm. [See Magee 1977.] There are 2 problems with this viewpoint.

First, there may be ways by which the TNC may appropriate the return on its foreign investment other than by equity participation—licensing and management fees paid by the subsidiary, sale of inputs to the subsidiary, sale of its output to other units of the TNC or on world markets, and interest on intracompany debt. The TNC may use its bargaining power not to increase its equity ownership, but to secure some other means by which to appropriate this return, possibly by manipulating the transfer price of these other payments. Despite the efforts of host governments and their local partners, control of these variables to reflect arm's-length, free-market values ("fair" values) has often been quite difficult [Lecraw 1984]. Through these and other means, the use of internalization to appropriate returns through equity ownership in a subsidiary may be reduced and the TNC may use its bargaining power to gain advantageous concessions other than equity participation if it can control the allocation of the returns from the subsidiary in other ways. The fewer the transactions between the parent TNC and its subsidiary, however, the fewer the possibilities for the TNC to appropriate the return on its firm-specific advantages except through equity participation.

Second, TNCs may bargain for increased equity participation in order to increase their control over the operations of their subsidiary, to try to ensure that the internalization advantages are in fact realized. The link between the level of equity participation and the TNC's control over its subsidiary, however, may not be straightforward. Depending on the type of technology transferred, the capabilities of the local partners, and host government policies, a TNC may be able to control the operations of its subsidiary that are critical from its viewpoint without majority ownership, or, conversely, may have little control over these operations despite majority (or even complete) ownership. A TNC may therefore be willing to trade reduced equity ownership for increased control of variables crucial to the success of the venture from its point of view, if such a trade-off is possible. In this way, TNCs have sometimes been able to reduce host-government intervention in the operations of their subsidiaries, while at the same time appropriating their desired share of the surplus generated by their firm-specific advantages.⁷

The link, therefore, between the bargaining power of the TNC, the level of its equity participation, its control of the subsidiary, and its perception of the success of the investment is complex and may be difficult to trace. One implication of this analysis, however, may be testable using the data in this study. All else equal, the desire of the TNC for a high level of equity participation should increase as the economic ties between its subsidiary and the parent (through trade in inputs and outputs, machinery, and management and technology fees) decrease, because the potential of appropriating the profits of its investment, except through return on equity, has decreased.⁸ The hypotheses concerning the relationship between TNC and host-country characteristics, the level of equity ownership desired by the TNC, and the bargaining power of the TNC and host country are displayed in Table 1.

TABLE 1
Expected Signs

Independent Variables	Dependent Variables		
	Actual Equity Ownership	S ^{TNC}	Effective Control
Technological leadership	+	+	+
Advertising intensity	+	+	+
Subsidiary assets	+	+	+
Capital/output	+	+	+
Exports/sales	+	+	+
TNC assets	+	?	+
TNC-subsidiary linkages	-	?	+
Host country attractiveness	-	-	-
Potential TNC investors	-	-	-
Time (1960 = 1)	-	-	-
Dummy - Japanese TNC	-	?	-
Dummy - LDC TNC	-	?	-
Dummy variable European TNC	?	?	?
Constant term	+	?	+

To this point the analysis has sketched the often tangled relationship between the bargaining power of the TNC and its desired level of equity participation, the level of participation it achieves, and its control of its subsidiary, either as a whole, or over its critical strategic variables. The bargaining power of the host country also influences this relationship as the host country uses its bargaining power to appropriate a share of the profits earned by the TNC within its country.⁹ The host country may possess scarce resources or control access to markets—either of which increases its bargaining power with the TNC. If the host government controls access to its markets through tariffs or nontariff barriers to trade and if the TNC investment is designed to serve the host-country market, the host government can bargain access to its domestic market to gain equity participation for host-country nationals. The more attractive the host-country's internal market, the less open it is to trade; and the more willing the host government is to forego the immediate gains that the TNC may be able to provide via FDI, the greater the bargaining power of the host country. Similarly, the greater the diffusion of the expertise that TNCs can provide, the greater is the opportunity for the host government to play TNCs against one another in bargaining over the level of equity ownership and the share of the surplus from the venture accruing to each partner. In general, the greater the country-specific advantages of the host

country, the greater its bargaining power and the higher the level of local ownership it may gain for local investors.

Several researchers have recently analyzed the relationships between the level of a TNC's equity participation, its control of the operations of its subsidiary, the success of the investment, and the reasons for failure. [See Killing 1982; Schaan 1982; and Beamish and Lane 1982.] These researchers used intensive interviews with small samples of Canadian firms that formed joint ventures both in developed countries (the United States) and in LDCs (Mexico and Kenya). Their general conclusion was that the relationship between joint venture success and equity ownership was U-shaped, that is, joint ventures in which the TNC held a small minority share (control was with the local partner) or a large majority share (control was with the TNC) tended to be more successful than joint ventures in which the partners held roughly equal shares (control was split). Joint ventures in which control was roughly equal at the board level or divided along functional lines tended to experience splits between the TNC and its local partner when the joint venture was under pressure from its external political or economic environment. These splits between the partners often led to friction at the operating level, compromises with which neither partner was satisfied, reduced commitment to the venture, and unsatisfactory performance.¹⁰

Data collected as part of the present study, although considerably less detailed than those of Killing [1982] and Schaan [1982], can be used to analyze the relationship between equity ownership, the assets brought to the venture by the TNC and the local partner, the critical success variables of the venture, the division of control, and the success of the venture.¹¹

The next section describes the data and methodology used to test some of these hypotheses on the determinants of the relative bargaining power of TNCs and host governments, equity ownership, control, and success of subsidiaries of TNCs in LDCs.

As part of this study, data were collected using a questionnaire during interviews with 153 subsidiaries of TNCs based in the United States (52 subsidiaries), Europe (35 subsidiaries), Japan (43), and other LDCs (23) located in the 5 ASEAN countries: Thailand (39 subsidiaries), Malaysia (31), Singapore (29), Indonesia (19) and the Philippines (35). The characteristics of the firms in the sample and the 6 light manufacturing industries in which they operated are described in Lecraw [1981, 1984]. In general, these industries were quite concentrated (average 4-firm concentration ratio of 71.2 percent), exported little of their output (exports/industry sales averaged 5.1 percent), imported a high percentage of their inputs (imports/total inputs averaged 41 percent) and operated behind high tariffs (nominal tariffs averaged 33.4 percent). In general, the TNCs in the sample had majority ownership in their subsidiaries (71 percent), the subsidiaries were quite small (assets averaged \$4.1 million), and profits were high (19.8 percent on equity). The subsidiaries generally produced for the local market (exports/sales averaged 7.1 percent) although a few subsidiaries exported more than 50 percent of their output.¹² [See Lecraw 1984, Tables 1-4.]

METHODOLOGY The analysis in the previous section developed several hypotheses concerning the relationship between the relative bargaining power of the TNC and the host government, their desires for equity participation, the level of equity participation, the level of control achieved by the TNC in its subsidiary in the host country, and the success of the subsidiary. This analysis led to the hypotheses that the bargaining power of the TNC would increase with the level of the technology the TNC initially transferred to the venture, with the venture's on-going dependence on the TNC for technology in the future, with increasing advertising intensity of the TNC, with increasing dependence of the subsidiary on the TNC for export markets, and with increased size and capital intensity of the venture. The

bargaining power of the host country would increase with increasing attractiveness of its local market and the degree it controlled market access through tariffs, and with increasing availability to the host country of the TNC's proprietary assets from other sources.

There was a problem in directly observing and measuring the 4 variables which jointly determine the actual level of equity ownership (EO) in this model: TNC bargaining power (BP^{TNC}), host country bargaining power (BP^{HC}), the TNC's desired level of equity ownership (DE^{TNC}), and the host country's desired level of equity ownership (DE^{HC}). The model has 5 structural equations:

$$EO = f(BP^{TNC}, BP^{HC}, DE^{TNC}, DE^{HC}), \quad (1)$$

$$BP^{TNC} = g(X), \quad (2)$$

$$BP^{HC} = h(X), \quad (3)$$

$$DE^{TNC} = l(X), \quad (4)$$

$$DE^{HC} = m(X), \quad (5)$$

where X is a vector of the TNC and host country characteristics. The BP^{TNC} , BP^{HC} , DE^{TNC} , and DE^{HC} are unobserved variables, but the X_i and Equity Ownership are observable. This problem led to the construction of a reduced form equation:

$$EO = n(X). \quad (6)$$

If the reduced form (Equation 6) is estimated, it is incorrect to draw explicit conclusions on the link between the X_i and bargaining power and desired equity ownership, or the link between bargaining power and desired equity ownership to actual equity ownership. This is a problem with drawing conclusions from the estimation of any reduced-form equation when the structural equations contain unobserved variables and hence cannot be estimated separately. It reduces the strength of the conclusions of the analysis of this paper about the usefulness of the bargaining power framework or, at best, conclusions are left to the interpretation of the reader.

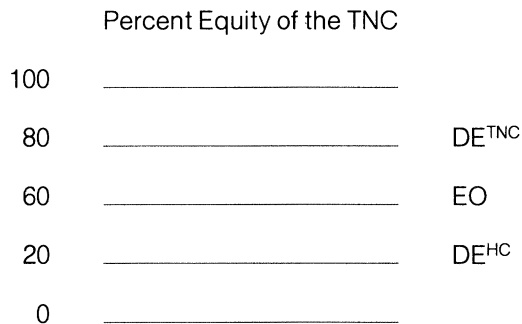
Part of this problem can be circumvented if several assumptions are made. If the TNC's desired level of equity ownership does not vary between host countries and if the TNC achieved its desired level in at least one country, then the highest level of equity ownership of the TNC in any LDC can be used as a proxy for its desired level of ownership. If the host country's desired level of equity ownership does not vary among TNCs and if it achieved this level with a subsidiary of one TNC, then the lowest level of TNC equity (the highest level of host country equity) can be used as a proxy for the host country's desired level of equity ownership. Then, the differences between actual Equity Ownership and the TNC's desired ownership, and between actual Equity Ownership and the host country's desired ownership can be observed and the ratio of these differences related directly to the characteristics of the TNC and the host country. (If $DE^{TNC} = EO$, S^{TNC} was set equal to 1,000).

$$S^{TNC} = \frac{EO - DE^{HC}}{DE^{TNC} - EO} = q(X) \quad (7)$$

S^{TNC} might be considered the success of the TNC in bargaining with the host country. (See Figure 1.) S^{TNC} depends on the 2 sets of variables which have been identified with the relative bargaining power of the TNC and the host country. This methodology follows Fagre and Wells. S^{TNC} is a combination of their 2 variables, "Firm-Corrected Ownership" and "Country-Corrected Ownership."¹³ Data were

FIGURE 1

The relationship between the actual level of equity ownership (EO), the desired level of ownership of the host country (DE^{HC}), and the TNC (DE^{TNC}), and bargaining success (S^{TNC}).



$$S^{TNC} = \frac{EO - DE^{HC}}{DE^{TNC} - EO} = \frac{60 - 20}{80 - 60} = 2$$

collected for the firms in the sample on EO, the X_i , and they were used to construct S^{TNC} under the assumptions listed above.

The bargaining power of the TNC may increase as the technological intensity of the product and process technology it brings to the subsidiary increases. Three measures might be used as proxies for the intensity of the TNC's R&D. The most often used proxy for R&D intensity has been the R&D/sales ratio of the parent TNC. The technology transferred to the subsidiary, however, may be older than the latest technology produced and used by the TNC at home. The R&D intensity of the subsidiary, as measured by local R&D/(subsidiary sales) is an even more unreliable measure since, typically, significant R&D is not performed at the subsidiary level. Licensing and technical service fees as a percent of sales is also not a satisfactory measure because the size of these fees often does not reflect the value of the technology transferred due to manipulation of transfer prices by the TNC and because some host governments control the level of these payments. A measure of technological intensity was used that might circumvent these problems. It ranked on a scale of 1 to 10 the technological leadership of the parent TNC as perceived by the firm's managers. This measure embodies not only the technology that could have been transferred with the initial investment, but also the potential for further transfer in the future, another potential source of bargaining power for the TNC.

Finding a reasonable proxy for the advertising intensity of the firm also presented problems, although they were not as severe as those for technological intensity. The advertising to sales ratio of the subsidiary relative to other firms in the industry in the host country was used.

The bargaining power of the parent TNCs may have increased as the capital requirements of the subsidiary increased. The capital intensity and capital requirements variables were straightforward to measure: total assets/output and total assets. These 2 variables were correlated, however, so that when they were entered in the regression equation together, they were significant at only the 10 percent level.

Export intensity was measured as exports/sales. The higher the export/sales ratio, the greater the bargaining power of the TNC.

The size (assets) of the parent TNC relative to the other parent TNCs in the

industry was included in the regression equation to test the hypothesis that for smaller firms capital and managerial resources were a binding constraint on their ability to undertake majority equity participation in their subsidiaries abroad.

As the economic linkages between the TNC and its subsidiary increase, the TNCs may have become less reliant on subsidiary profits for earning a return on their investment. The flow of resources between the TNC and its subsidiary as a percent of sales was used to proxy this linkage effect: inputs, interest on loans and intrafirm suppliers' credit, intrafirm sales, management and technical service fees, and an imputed rental value on machinery and equipment supplied by the TNC.¹⁴

Finding a proxy for the "attractiveness" of the host country as a site for a subsidiary proved difficult because many variables could influence a TNC's perception of host country attractiveness. Moreover, the relative importance of the various factors could vary between TNCs and over time. The managers interviewed were asked to rank from low (1) to high (10) the attractiveness of the host country as an investment site at the time of the investment.

The number of TNCs that had already undertaken a FDI in the countries of the ASEAN region in the firm's industry at the time it made its investment was used as a proxy for the number of potential entrants into the industry in the host country. As this number increased, the relative bargaining power of the TNC should decrease.

"Time" was included as an explanatory variable because the TNCs in the sample had invested in different years. Host economics and government policies had changed over time and multinationals based in Japan and LDCs tended to be late entrants.

Finally, when the TNC was based in Europe, Japan, or an LDC, 3 dummy variables were used to pick up any residual difference between the percent ownership attained and the relative bargaining power of the TNC and the nationality of the parent TNC. These dummy variables test the hypothesis that TNCs based in different countries "give" local partners a greater share of the equity in their foreign subsidiaries. These dependent and independent variables are tabulated in Table 1 with their expected signs.

Table 2 displays the regression results. For the regression on Actual Equity Ownership all the coefficients had the expected sign and most were significant at the 5 percent level. Note that, everything else being equal, the TNCs in the sample based in Japan and LDCs had a lower level of Actual Equity Ownership although only by 4 percent and 7 percent, respectively. U.S.-based and European TNCs had about the same propensity for equity participation given firm and country characteristics (their relative bargaining strengths). Smaller TNCs tended to take lower equity positions than did larger ones. The regression results lend some support to the hypotheses on the determinants of the relative bargaining power of TNCs and the host countries. Actual Equity Ownership increased as the technical leadership, the advertising intensity, and the export ratio increased, and decreased as host country attractiveness and the number of potential TNC investors increased, and with time. Although the coefficients of the variables representing the capital intensity and capital requirements had the expected sign, they were only significant at the 10 percent level.¹⁵

The regression on S^{TNC} supports these conclusions. Notice that the variables used to proxy a TNC's desire for equity ownership—TNC assets, TNC-subsidiary linkages, and the TNC home country dummy variables—were no longer significant because S^{TNC} factors the desired level of equity ownership out of the relationship. Time was significantly negative, indicating that the 5 host countries had become more successful in their bargaining with TNCs for equity ownership over time.

RESULTS

TABLE 2
Regression Results

Independent Variables	Dependent Variables		
	Actual Equity Ownership, EO	TNC Bargaining Success (X100), S ^{TNC}	Effective Control
Constant	50.3*** (5.70)	5.3 (.84)	6.2*** (4.13)
Technological leadership	1.32** (2.12)	2.4*** (2.37)	.21*** (3.21)
Advertising intensity	1.20** (1.98)	.87* (1.76)	.12** (2.13)
Subsidiary assets	.35* (1.67)	.72* (1.72)	-.10* (1.66)
Capital/output	.42 (1.37)	.17 (1.43)	.07 (1.10)
Export/sales	3.12*** (2.91)	5.5*** (3.25)	.37*** (2.97)
TNC assets	.63*** (2.50)	1.1 (.73)	.10** (1.98)
TNC-subsidiary linkages	-5.14** (2.23)	-2.3 (1.24)	.30*** (2.75)
Host-country attractiveness	-2.15*** (3.01)	-3.6*** (3.12)	-.14 (1.15)
Potential TNC investors	-2.77*** (2.63)	-2.7** (2.11)	-.12** (1.98)
Time (1960 = 1)	-.52** (2.55)	-.74** (2.20)	-.05** (2.02)
Dummy-Japanese TNC	-.04*** (3.50)	-.17 (.84)	+.07** (2.10)
Dummy-LDC TNC	-.07** (2.91)	.32 (.15)	-.03* (1.92)
European TNC	+.02 (1.10)	+.87* (1.67)	.02 (1.61)
\bar{R}^2	.63	.47	.55

The t statistics are in parentheses.

*** significant at the 1 percent level

** significant at the 5 percent level

* significant at the 10 percent level

These results support and extend those of Fagre and Wells and give a more solid foundation to the hypothesis that the level of equity participation of TNCs is influenced by their relative bargaining position with host country governments.

Control Over the Subsidiary

The next issue to be considered is that of control over the operations of the subsidiary in the host country.¹⁶ There may often be no straightforward relationship between the percentage of equity ownership of the TNC and control over its subsidiary. "Control" was broken down into 18 areas in production, finance, marketing, exports, and imports, including overall management control. (See the Appendix for a list of these areas.) The managers of the 153 subsidiaries rated the importance of control over each of these factors for the success of the investment from the parent TNC's viewpoint (1 = no importance; 10 = critical importance), and the degree of control that the TNC had over each factor (1 = no control; 10 = complete control). These data were used to construct a composite measure of the

TNC's control over its subsidiary, "Effective Control." (Details of how this measure was calculated are in the Appendix.) Effective Control essentially was a measure of the degree of control that the TNC had over the 18 variables weighted by their importance for the success of the investment from the TNC's viewpoint. Put another way, Effective Control measured the degree of control over the critical success variables retained within the TNC compared to the control lost to those outside the TNC, such as, local partners or the host government. Effective Control was scaled from 1 (no effective control) to 10 (complete effective control). For the firms in the sample, the correlation between the TNC's percent equity ownership in its subsidiary and its Effective Control over its subsidiary was .57, far from a 1 to 1 correspondence.

The next step in the analysis was to examine the relationship between Effective Control as a dependent variable and the factors that may have determined the relative bargaining power and desires for equity ownership of the TNCs and the host countries as independent variables using linear multiple regression. The expected signs of the coefficients are displayed in Table 1 based on the theory presented in the previous section. Notice that the expected signs are the same (except for "TNC-subsidiary linkages") for Effective Control as for Actual Equity Ownership since the factors that influenced Actual Ownership and Effective Control were the same. A higher degree of linkages between TNC and subsidiary may reduce the TNC's desire for equity ownership (because it can take its profits in other forms besides on its equity), but should increase its level of effective control.

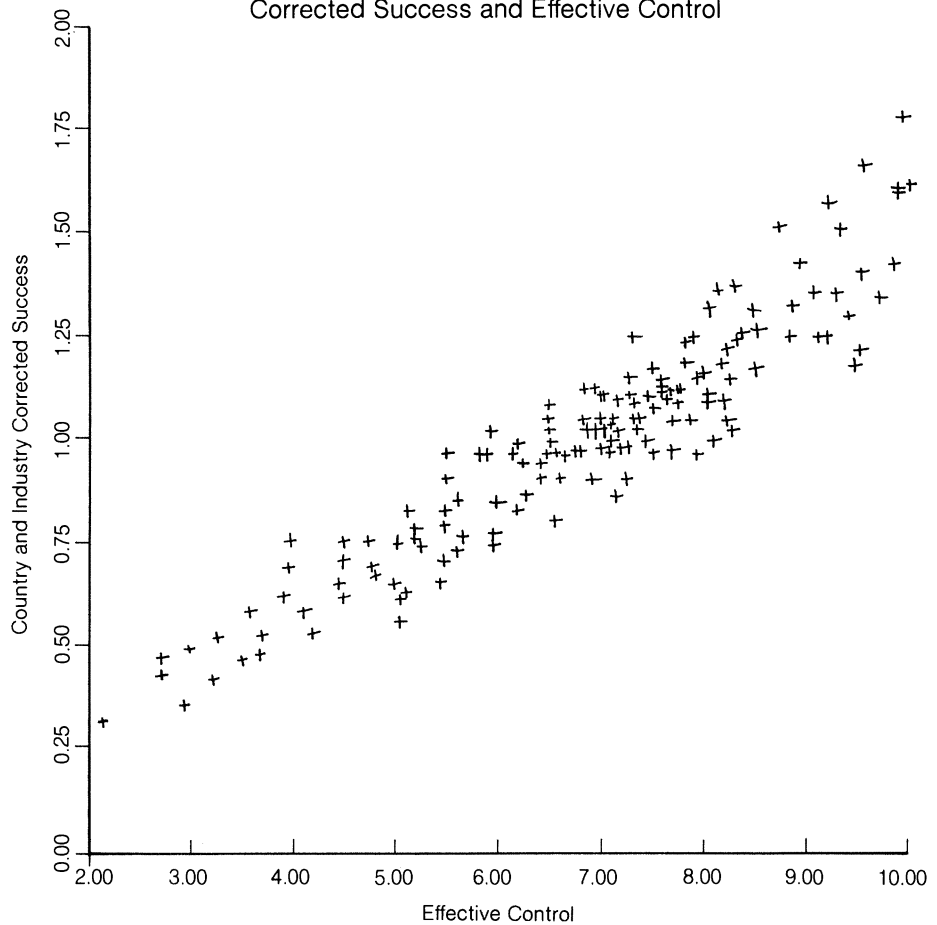
The results of the regression analysis generally supported the hypotheses, although there were a few surprises (Table 2). First, although TNCs based in Japan and LDCs had generally lower actual equity ownership than U.S. and Europe-based TNCs, Japanese TNCs seem to have retained a slightly higher degree of Effective Control within the TNC (significant at the 5 percent level), given their relative bargaining power. This result may have some interesting policy implications, since one of the reasons given by host-country governments for an increased level of local equity participation has been to retain control of the activities of the subsidiaries of TNCs.¹⁷

The relationship between Effective Control of a TNC over its subsidiary and the success of the investment was tested using 3 measures of success: the profitability of the subsidiary; the success of the subsidiary as rated by the TNC (1 = unsuccessful; 10 = very successful); and the "corrected" success where the success rating of an individual subsidiary was scaled in relation to the average success rating of the firms in the sample in the same industry in the same country, that is, country and industry corrected success (CICS). The TNCs were asked to rate the success of their investment because profitability was not the only component of success for the TNCs in the sample, and because the reported profitability of the subsidiaries of TNCs has been found to differ from actual profitability.¹⁸ The CICS rating was used to try to isolate the relationship between Effective Control and the success of the subsidiary independent of industry and country effects. The scatter diagram plotting CICS against Effective Control is in Figure 2. The relationship was roughly linear: the greater the Effective Control, the greater the CICS of the subsidiary from the TNCs' viewpoint. This relationship also held when success and profitability were plotted against Effective Control, although there was a much wider scatter about the trend, as expected.

The relationship between Percent Equity Ownership and CICS is displayed in Figure 3. Note that the relationship was roughly J-shaped. The lowest level of CICS occurred when equity ownership was roughly split between the TNC and its local partners. When equity ownership clearly resided with one partner or the other, the subsidiary tended to be more successful from the TNC's point of view. This J-shaped relationship also held between Overall Management Control and CICS, not surprising in light of the high correlation (.63) between Percent Equity Ownership and Overall Management Control. These results support the research

FIGURE 2

The Relationship Between Country And Industry Corrected Success and Effective Control



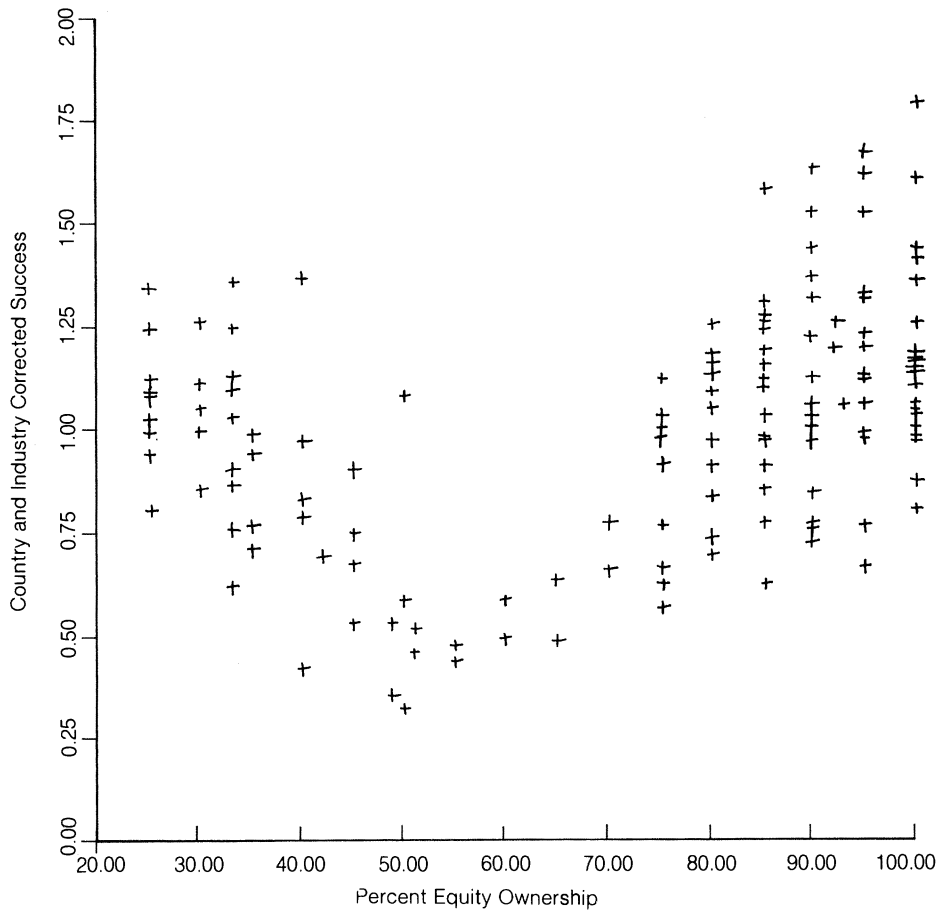
of Killing [1982] and Schaan [1982] and provide it with statistical support drawn from a large sample of firms based in different home countries, operating in several industries, and investing in several host countries.

**CONCLUSIONS
AND
IMPLICATIONS**

The theoretical and statistical analyses of this paper have traced the relationships between the characteristics of TNCs and host developing countries, their desired equity ownership in the subsidiary, control over the subsidiary, and the success of the TNCs in attaining their goals using a bargaining power framework of analysis. There was not a close relationship between Percent Equity Ownership and Effective Control. Some TNCs with a low percent of the equity in their subsidiaries had a high degree of control over the critical success variables in their subsidiaries. Conversely, some TNCs with a high level of equity ownership had a low degree of control over these variables. Some TNCs were able to control their subsidiaries in LDCs by means other than through their share of the equity of the subsidiary. There was a close linear relationship between the level of control a TNC had over the areas of operation of its subsidiaries that were critical to success, and the success of the investment from the TNC's viewpoint. The relationship between the TNC's overall management control and its equity ownership position in its subsidiary and the success of the subsidiary from its

FIGURE 3

The Relationship Between Country and Industry Corrected Success and Equity Ownership



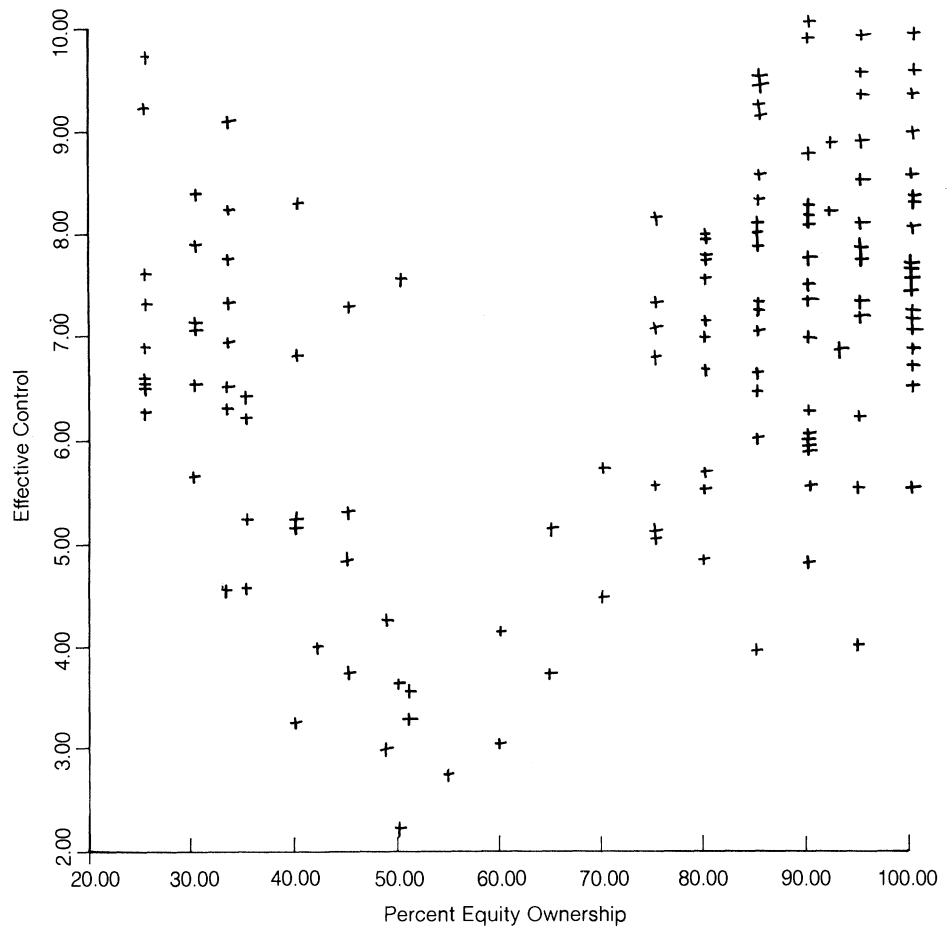
viewpoint was roughly J-shaped. Low success occurred when ownership and overall control were roughly equally divided between the TNC and its local partner. These conclusions have several implications for TNCs and host countries alike.

First, the relative bargaining power of TNCs and host LDCs, as proxied by the variables in Table 1, had a strong influence on the percent equity participation the TNCs in the sample attained in the ASEAN Region. Before investing in the LDC, TNCs might do well to assess their relative bargaining power so that they do not set unreasonable target levels of equity participation in negotiations with investors and host governments in LDCs. If the relative bargaining power of a TNC and the host government changes over time, negotiations may be initiated by either party to change the level of equity participation to reflect these changed conditions. Conversely, if a host government sets mandatory minimum levels of equity participation by its nationals, it may either discourage FDI (if the levels are higher than warranted by its relative bargaining power) or give up potential benefits of increased local ownership (if the levels set are too low).

Second, because the relationship between equity participation and effective control was not close, a TNC may be able to retain control over the factors of the operation of its subsidiary that are important to it, even though it has a low level of

FIGURE 4

The Relationship Between Effective Control and Equity Ownership



equity participation. A TNC may therefore be able to reduce the level of its equity participation in response to host country demands while retaining control over the factors that are critical to the success of its investment. If the TNC has significant linkages to its subsidiary in the LDC, it may be able to appropriate a satisfactory share of the profits earned on its firm-specific advantages in ways other than through its share of the dividends from its equity investment.

In its drive for increased equity ownership, a TNC may cause the host government to react in such a way as to reduce the TNC's control over these key factors in spite of its higher equity position, or, conversely, the TNC may not invest in a country that does not allow it its desired level of equity participation even though the TNC may be able to appropriate a satisfactory share of profits despite a reduced level of equity ownership. This trade-off between equity and control may be particularly important in countries where the host government perceives a high economic and political cost associated with foreign ownership. Conversely, host governments may have placed undue emphasis on the level of equity participation of TNCs in their economies in their desire to appropriate a share of the profits earned by TNCs operating in their economies, rather than focusing on the level of effective control and the linkages between TNCs and their local subsidiaries.

Third, there was a strong relationship between effective control and the success of the investment from the TNC's viewpoint. The relationship between Overall

Management Control (and percent equity participation) and success was J-shaped: high and low levels of Overall Management Control (and high and low levels of equity participation) led to greater success than when ownership and management control were split roughly equally. These results reinforce the previous conclusions that it may be to the TNC's advantage to trade off reduced equity participation for increased effective control, a trade-off that may be available if increased equity participation (because it is highly visible) carries a high perceived cost to the host government, but effective control does not (because it is more difficult to discern, monitor, and regulate). TNCs should be careful about reaching a situation in which the level of equity ownership and control is roughly equal between the partners. On the other hand, host governments might gain more benefits for their countries if they bargained over increased local control rather than for increased local equity participation if they are concerned about losing control over their economies to TNCs and about the effects of transfer pricing on the flow of net benefits to their economies.

Fourth, although TNCs based in Japan have typically taken a lower level of equity ownership in LDCs than U.S. or European TNCs, they managed to retain a higher level of effective control over their subsidiaries, even when the relative bargaining power (as proxied by firm and country characteristics) of the 3 groups of firms is taken into account.

Calculation of Effective Control

APPENDIX

Factors	Control(C) 1(no)-10(complete)	Importance(I) 1(none)-10(critical)
Output pricing	6	8
Output volume	4	9
Output quality	8	10
Technology transfer	10	10
Technology control	10	10
Capital expenditures	5	7
Financing source	1	2
Financing cost	2	2
Financing amount	1	1
Dividends timing	5	6
Dividends amount	7	6
Fees paid to the TNC	7	8
Advertising and marketing and expenditures	4	7
Channels of distribution	3	2
Import price	6	5
Import source	8	10
Import volume	4	3
Export price	9	3
Export destination	8	4
Export volume	7	2
Overall management	6	7

$$\text{Effective Control} = \frac{\sum C_i \cdot I_i}{I_i} = \frac{801}{122} = 6.6$$

1. Ironically, one of the persistent problems in joint ventures in LDCs is often the desire of local partners for a quick payback at the expense of the continued reinvestment desired by the TNCs.
2. In this paper the term "subsidiary" is used rather loosely to refer to a direct investment by a TNC in the host country regardless of the extent of the TNC's equity position in that subsidiary.

FOOTNOTES

3. See Dunning [1979], Casson [1979], Buckley and Casson [1976], Rugman [1980], and Buckley [1981].
4. The greater the advantages of internalizing the international activity via FDI relative to licensing or export, the lower the relative returns to these activities and the more the firm will strive to retain a high share of the profits of the venture abroad by a high level of equity position in its subsidiary in the host country.
5. See Stopford and Wells [1972, Chapter 8] and Fagre and Wells [1982].
6. Conglomerate diversification, especially if the parent firm acts as a holding company, may be one form of externalizing the TNC's proprietary asset of access to relatively inexpensive capital. Conglomerate diversification usually occurs within national boundaries, although with a few notable exceptions (for example, Seagrams' attempt to take over Conoco).
7. See Poynter [1982] and Bradley [1977] for analyses of the determinants of host government intervention against TNCs and the strategic alternatives available to TNCs to reduce this intervention.
8. This effect may be decreased somewhat if the TNC is concerned about the price at which intrafirm goods and services are transferred and if there is a potential conflict over transfer prices with its local partner.
9. See Stern and Tims [1975], de la Torre [1981], and Streeten [1976] for analyses of the relative bargaining power of host countries.
10. In a preliminary draft of their paper, Fagre and Wells [1982] wrote, "As a practical matter, we had to use the degree of control (as measured by equity ownership) to indicate bargaining success." But further on they wrote, "Developing nations, just as many multinational corporations, generally equate equity ownership with control. In reality, ownership and control may not be perfectly related. . . . However, there is probably a reasonable correspondence between the percentage of equity ownership held by a parent corporation and the actual degree of control exercised over the affiliates in most cases." Fagre and Wells cited previous work by several authors to support this statement.
11. See Lecraw [1981, Table 3-4] and Kumar and Kim [1982].
12. There were wide variations about these averages. See Lecraw [1983a] for further data on the firms in the sample.
13. This measure may be better than that used by Fagre and Wells in that the comparison is for subsidiaries in LDCs, not to the ownership level of the TNCs' European subsidiaries where business conditions may be radically different from those in the host LDC.
14. See Vaitos [1974, Chapter 5] for an analysis of transfer pricing by TNCs.
15. The correlation between capital intensity and capital requirements was .43.
16. See Hayashi [1978], Puxty [1979], Sim [1977] and Welge [1980] for analyses of comparative management and control systems among U.S., British, German, and Japanese TNCs.
17. This statement makes the assumption that local joint venture partners will act in the interest of the nation in exercising their control over the subsidiary. Even if this is not true, however, at least they will use their control for their own benefit and, to the extent they are part of the nation, the nation gains. This argument is roughly similar to "I'd rather be had by someone within my group than by a stranger."
18. See Vaitos [1974, Chapter 5].

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