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DIVERSIFICATION STRATEGY AND INTERNATIONALIZATION: IMPLICATIONS FOR MNE PERFORMANCE

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This study examines potential explanations for performance differences among multinational enterprises (MNEs). The research variables, diversification strategy and degree of internationalization, involve basic elements of firms' strategy: range and relatedness of products, and relative emphasis on foreign versus domestic operations. The sample included the 100 largest MNEs from the U.S. and Europe. Diversification strategy was significantly related to MNE performance, extending Rumelt's seminal research to international business. Degree of internationalization was also significantly related to MNE performance.

An important phenomenon within international business is the increased role of multinational enterprises (MNEs), particularly large multinationals. In 1981 the sales of the largest 500 MNEs were equal to over 20 per cent of the world's gross domestic product, over 50 per cent of the world's traded output, and over 80 per cent of the foreign direct investment (Rugman, 1987; Stopford and Dunning, 1983). Management of these enterprises and their immense resources is a more complex and challenging task than for firms whose activities are largely confined to a single nation. Because of their important role in the world economy, much attention has been lavished upon MNEs, including examination of the rationale for their existence; their influence upon politics, culture, and industries; and their structure, strategies and management. One observation reported by several researchers involves differences in performance among MNEs, and efforts have been made to identify variables associated with these differences. Despite some success in identifying such variables, there is room for further study before these differences are fully understood. This study was undertaken to help reduce this perceived gap in the literature.

This study uses the concept of competitive advantage to investigate performance variations among MNEs. Competitive advantage, sometimes termed firm-specific advantage, refers to some tangible or intangible characteristic of an organization which rivals cannot imitate without incurring substantial cost and uncertainty (Kogut, 1985a; Porter, 1985). Development and maintenance of competitive advantage involves managerial decisions regarding what activities and technologies the firm should target for investment of financial and non-financial resources, relative

to investments by competing firms. A critical issue confronting MNE managers is how to employ this resource base to yield competitive advantage and generate 'economic rents', or at least avoid generating 'economic losses'. Effective and efficient resource deployment encompasses two fundamental elements of any MNE's strategy: the range and relatedness of the products sold (i.e. diversification strategy), and the firm's relative emphasis on foreign versus domestic operations (i.e. degree of internationalization). Because these two elements are central to the resource deployment issue, they appear to be a promising focus for efforts to explain differences in MNE performance.

Hypotheses were developed which related diversification strategy and degree of internationalization with performance differences of MNEs. These hypotheses were tested using data on 200 of the largest multinationals in the U.S. and Europe. These data were supplemented by interviews with eight senior executives of North American and European multinationals. The results are discussed, and the paper concludes by addressing their potential implications for research and practice in international strategic management.

RESEARCH HYPOTHESES

Diversification strategy and MNE performance

As noted by Porter (1985), the interrelationships among a firm's businesses can influence its ability to attain competitive advantage. This study's first hypothesis is based on the voluminous literature on diversification strategy.

Pioneering research by Chandler (1962) and Ansoff (1965) outlined the motivations for corporate diversification and the general characteristics of diversified firms. Wrigley (1970) refined and extended Chandler's findings by establishing that there were significant, observable differences in the methods firms employed to diversify their product lines. Central to his study's conceptualization was the notion of core skill. Wrigley defined core skill as the collective ability of a firm to efficiently and effectively combine knowledge of a market and a technology in order to permit the firm to earn profits, survive and grow in the markets in which it competes. Using this core skill concept, Wrigley discarded the 'product

count' measure of diversification previously employed in industrial economics studies to measure the diversity of a firm's operations (Arnould, 1969; Gort, 1962; Markham, 1973). Wrigley instead proposed a novel, four-part typology of diversification strategies: single product, dominant product, related product, and unrelated product. 'Related product' diversification involved expansion into product-markets related to the firm's core skill; 'unrelated product' diversification included entry into product-markets unrelated to a firm's previous activity; and 'dominant-product' diversification referred to firms which diversified to only a limited extent (< 30 per cent of total sales) from their principal single-product base.

Building on the work of Wrigley, Rumelt (1974) examined the relationships among diversification strategy, organizational structure, and economic performance. To overcome some of the limitations of Wrigley's typology, Rumelt expanded it to nine categories characterizing firms' diversification strategies. These categories are presented in Table 1. His finding was that firms which diversified but restricted their range of activities to some 'central skill or competence' exhibited superior performance.[1] Specifically, firms utilizing dominant-constrained and related-constrained diversification strategies exhibited the highest average ROE; firms whose strategies were categorized as active conglomerates, related-linked and single business were in the mid-range; those with unrelated-passive and dominant-vertical diversification strategies were associated with lower levels of ROE. Rumelt found that the performance of firms pursuing dominant-linked and dominant-unrelated diversification strategies did not cluster discretely into the high, medium, or low performance categories.

Due to the conceptual and empirical significance of these results, the authors hypothesized that Rumelt's (1974) findings regarding the relationship between diversification strategy and performance might also be applicable to MNEs. This extension of Rumelt's findings was predicated on the supposition that his concepts and observations would retain their applicability for a sample of large multinationals competing within

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[1] Rumelt's findings were reinforced through subsequent replications by Christensen and Montgomery (1981) and Rumelt (1982).

Table 1. Rumelt's categorizations of diversification strategies

1. *Single business* (SB): firms that are basically committed to a single business in a single industry ($Rs > 0.95$).

2. *Dominant business*: firms that have diversified to some extent, but still obtain the preponderance of their revenues from a single business in a single industry ($0.95 > Rs > 0.70$)
   (a) *Dominant-vertical* (DV): vertically integrated dominant firms.
   (b) *Dominant-constrained* (DC): non-vertical dominant firms that have diversified by building on some particular strength; their activities are strongly related.
   (c) *Dominant-linked* (DL): non-vertical dominant firms that have diversified by building on several different strengths; activities are not closely related, but are still linked to their dominant business.
   (d) *Dominant-unrelated* (DU): non-vertical dominant firms whose diversified activities are not linked to their dominant business.

3. *Related business*: non-vertically integrated diversified firms operating in several industries but whose activities are linked ($Rs < 0.70$ and $Rr > 0.70$).
   (a) *Related-constrained* (RC): related firms, all of whose activities are related to a central strength.
   (b) *Related-linked* (RL): related firms that have diversified using several different strengths and hence are active in widely disparate businesses.

4. *Unrelated business*: non-vertical firms that have diversified without regard to the relationships between new business and current activities ($Rr < 0.70$ and $Rs < 0.70$).
   (a) *Active conglomerates* (AC): firms that have made at least five acquisitions in the past 5 years, of which at least three were unrelated to past activities.
   (b) *Unrelated passive* (UP): unrelated business firms that do not qualify as active conglomerates.

1. Rs = specialization ratio: the proportion of a firm's revenues attributable to its largest single business in a given year.
2. Rr = related ratio: the proportion of a firm's revenues attributable to its largest group of related business.
Source: Rumelt (1974).

international markets. The following hypothesis was constructed:

Hypothesis 1: MNEs employing dominant-constrained or related-constrained diversification strategies will tend to achieve the highest levels of performance, and MNEs employing unrelated-passive and dominant-vertical strategies will tend to achieve the lowest levels of performance.

In a similar study, Buhner (1987) examined the relationship of product-relatedness to performance in a sample of 40 firms in West Germany. Unfortunately, he looked at performance only in the context of the four broad product strategies, rather than according to Rumelt's nine-category schema.

Degree of internationalization and MNE performance

One option available to managers confronting the decision on how to deploy their firm's resources for competitive advantage is to diversify based on relatedness of products. However, firms may be able to achieve the same result through geographic rather than product diversification. For instance, beginning in the late 1950s and early 1960s, Crown Cork and Seal restricted its product line to cans for 'hard-to-hold products' and expanded by diversifying its market internationally.

Although there are many explanations why MNEs exist (Calvet, 1981; Caves, 1982), theories of foreign direct investment and of the MNE fail to specify whether some optimal degree of multinationality of a firm's operations may exist. A broad geographic scope of operations may yield competitive advantage by permitting a firm to exploit the benefits of performing more activities internally (Rugman, 1981). It may also allow a firm to exploit interrelationships between different segments, geographic areas, or related industries (Porter, 1985). Increased geographic scope of operations may increase a firm's ability to share or coordinate activities of different geographic areas. Such benefits include economies of scale, scope, and experience (Kogut, 1985b; Porter, 1985). For instance, Porter (1987a) notes the growing similarity of countries (in available infrastructure, distribution channels, and marketing approaches) and the integrating role of

technology (information technology which permits easier coordination of activities in different countries). As a result, traditional distinction between domestic and foreign operations is in decline, and may permit lower costs or enhanced differentiation to be achieved within a broad scope of operations.

A broad scope of operations entails costs, however. Institutional and cultural factors erect formidable barriers to the transfer of competitive advantage among countries (Kogut, 1985b). Geographically diverse operations may limit a firm's efforts to tailor its activities to serve a particular target segment, geographic area, or industry, thus frustrating attempts to achieve lower costs or a differentiated position in the market (Porter, 1985). Regional differences, and the increased costs of coordinating geographically dispersed operations, can reduce or negate potential benefits associated with increased scope.

It has been argued that there is no reason that variation in levels of internationalization should be associated with performance differentials (e.g. Rugman, 1983). Nevertheless, wide variation in the average degree of internationalization, and performance, of MNEs has been observed (Beamish and Newfeld, 1984; Rugman, 1986; Stopford and Dunning, 1983). Furthermore, prior studies suggest a relationship between degree of internationalization and performance may exist. Bergsten, Horst and Moran (1978) reported that domestic profits of U.S. industries tended to increase significantly with the extent of their overseas activities. Hymer (1960) hypothesized a similar relationship between multinationality and performance. Porter (1987b) demonstrated that geographic extension of a firm's existing business activities had a substantially lower rate of divestment—his surrogate measure of performance—than did diversification. Franko's (1987) research suggested that 'internationally diversified' firms have performance superior to 'national' or 'domestic' firms. Grant (1987) and Thomas and Grant (1987) found that the proportion of U.K. firms' revenue derived from non-U.K. operations had a significantly positive association with ROA. Similarly, Buhner (1987) observed positive relationships between geographic diversification and both market and accounting performance. Therefore, we hypothesized that variations in MNE performance may be attributable to the degree of internationali-

zation of firms' operations, and that the direction of this relationship would be positive.

Defining degree of internationalization as the extent to which total MNE sales are generated by foreign affiliates, the second research hypothesis can be stated as follows:

Hypothesis 2:   Relative performance of a MNE will tend to be positively related to the degree of internationalization of the firm's operations.

SOURCES OF DATA AND DEFINITION OF VARIABLES

Selection of sample companies

A sample of 200 MNEs, consisting of the 100 largest firms from the U.S. and Europe, was selected from the *World Directory of Multinational Enterprises, 1982–1983* (Stopford, 1983). Only U.S. and European MNEs were included, since they represented 414 of the largest 500 multinationals. The MNEs were chosen, and ranked, according to their 1981 worldwide sales. The resulting lists of companies were checked against equal-sized samples drawn from the *Fortune* 500 list and that of *Europe's 10,000 Largest Companies*, using identical criteria. The latter sets included essentially the same companies, with some minor variations in rankings, as those obtained from Stopford. The consistency of companies included in the separate lists was 95 per cent confirming the reliability of our samples as representing the 100 largest multinationals from each region.

Performance measure

The ratio of net annual profits-to-sales (return on sales) was obtained for each company in the list. It was calculated as the mean after-tax profits-to-sales over the 5-year period 1977–1981. Use of a multi-year mean was supported by Palepu's (1985) finding that significant performance effects arising from related versus unrelated diversification strategies were only apparent over time, not in cross-sectional analyses. All observations were included regardless of whether the firm registered a profit or loss in a particular year. The profits-to-sales measure was highly correlated ($r=0.91$) with another customary performance measure: net after-tax profits-to-total

assets employed (return on assets). Both measures were calculated from comparative data provided in Stopford (1983).[2] Profits-to-sales was chosen as the preferred measure of performance. The rationale was that sales are generally expressed in more current monetary terms than are assets, which would have been acquired over a longer time frame and carried at book values. Accounting ratios derived from asset-based values tend to hinder inter-company performance comparison because they display greater distortion than do operating-based measures. Thus, results from different methods of depreciation, local tax regulations, domestic inflation, and foreign exchange fluctuations, *inter alia*, can seriously hamper comparison of data (Arpan and Radebaugh, 1981; Choi and Mueller, 1984). Moreover, major new investments undertaken during the period 1977 to 1981, but not yet generating sales to their full potential, could further distort asset-based performance measures. This is less likely to be true regarding the impact on a profits-to-sales measure, based as it is on income statement values. In response to the above considerations, profits-to-sales was employed as the primary performance measure in the subsequent analyses.[3] However, to ensure that the profit-to-sales ratio did not bias results inadvertently in favor of asset-intensive industries, results of all analyses are reported for both profit-to-sales and profit-to-total assets.

Diversification strategy

Each of the 200 MNEs in the sample was classified according to its diversification strategy. Rumelt's (1974) classification schema, shown in Table 1, was used for this purpose. The inter-rater reliability of this typology has been supported empirically (Christensen and Montgomery, 1981; Dubofsky and Varadarajan, 1987; Montgomery, 1982; Thomas and Grant, 1987). Using the descriptive narrative in Stopford (1983), Annual Financial Reports and 10-Ks, supplemented by reference to periodical business publications, two of the authors and a research assistant independently classified the 200 sample companies. Discrepancies in the classification results obtained by each researcher were subsequently resolved through a joint consultative process.[4] The researchers were confident that this process resulted in accurate classifications of each company by its diversification strategy.

Degree of internationalization

The total reported sales of a MNE reflect the sum of its domestic sales, its export sales, and its foreign subsidiaries' sales. The authors were unable to obtain reliable data discriminating foreign subsidiary and export sales volumes for a sufficient number of firms in the sample, thus preventing use of the preferred ratio: foreign subsidiary sales to total MNE sales (Rugman, 1986). Therefore, the degree of internationalization variable was measured by the ratio of a company's foreign subsidiaries' sales to its total worldwide sales for the period 1977–1981. To establish the validity of using this ratio in the absence of data on a firm's export sales, the following confirmative procedure was employed using data from Stopford (1983): this ratio's simple *r* with another surrogate measure of multinationality, the ratio of a firm's nondomestic sales to its total sales, was determined.

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[2] Attempts were also made to use return on owners' equity as a measure of performance. However, no single data source provided sufficient information to permit accurate and systematic calculation of this ratio, and the authors were not confident that intercompany and intercontinent comparability on this measure could be claimed had information from multiple secondary data sources been utilized. Potential lack of comparability was attributable to apparent differences in the definition of elements comprising owners' equity, as well as the existence of missing observations in the standard data sources.

[3] Investigation of the influence of risk associated with this performance measure was excluded, in view of research by Montgomery and Singh (1984) which showed that differences in the systematic risk associated with the performance of firms employing dissimilar diversification strategies are not typical.

[4] This consultative step was required to settle classifications for 18 of the 200 sample firms (9 per cent). Fifteen of the cases involved the authors disagreeing with their research assistant regarding the appropriate classification label to apply to a firm. The vast proportion of these cases involved the research assistant's confusion regarding what qualified as a related business. In contrast, for only four of the 200 cases did the authors themselves initially disagree regarding the appropriate classification label to apply. This symmetry of results between authors was consistent with past studies (Christensen and Montgomery, 1981; Dubofsky and Varadarajan, 1987; Montgomery, 1982) and enhanced the perceived reliability of categorizations, further increasing confidence in outcomes of several subsequent statistical tests (e.g. see Table 2).

This *r* value exceeded 0.8 for each of the European and the U.S. samples.

The degree of internationalization (DOI) measure evidenced high inter-period stability, with individual firms' average DOI deviating minimally over the 1977–1981 period. This finding suggests that variables which could potentially distort the sales-based measure (e.g. major investments in new market or significant corporate reorganizations) tended to be quite limited, both in terms of occurrence and concomitant effects.[5]

METHODOLOGY AND RESULTS

Initial analysis of the sample data revealed that the mean performance of U.S. versus European MNEs differed: values being 5.16 per cent versus 1.52 per cent and 6.82 per cent versus 2.05 per cent for profit-to-sales and profit-to-total assets, respectively. This was consistent with prior findings (Rugman, 1983). Several potential explanations for these performance differences have previously been tested and rejected, including size (Rugman, 1983) and degree of multinationality (Rugman, 1979). The extent of government ownership had previously been found to be significant in explaining a portion of the lower performance by European versus U.S. firms (Rugman, 1983). Nevertheless, the existence of unexplained mean performance differences between U.S. and European firms had the potential for confounding results of subsequent statistical analyses. Therefore, we controlled for performance differences attributable to continent-of-origin and its concomitant effects (e.g. differences in accounting practices employed) by using standardized (*z*-score) data. Standardized performance measures have been successfully employed in prior studies on diversification

(Christensen and Montgomery, 1981; Dubofsky and Varadarajan, 1987). Consistent with Rugman (1986), it was assumed that the effects of non-uniformity of accounting conventions employed among various European nations would tend to balance out across nations, thus avoiding introduction of systematic bias into performance measures based on European continent-of-origin. Results of tests using standardized data will be reported below, in addition to results obtained using the original, unstandardized sample data.

Hypothesis 1 stated that the relative performance of MNEs would be a function of the diversification strategies the firms pursued. This proposition was tested by analyzing the variance in performance of firms using different diversification strategies. First, based on Rumelt's (1974) findings, that study's diversification strategies were categorized into three general classes—high-performing, medium-performing, and low-performing strategies. High-performing strategies included dominant-constrained and related-constrained; medium-performers included active conglomerates, related-linked, and single business; and unrelated-passive and dominant-vertical were classified as low-performing strategies. Based on its diversification strategy, each firm was assigned to one of these three general classes. (Eleven firms were excluded from this study's analysis since their strategies, dominant-linked or dominant-unrelated, had been reported by Rumelt as not clustering into one of the three general classes.) As shown in Table 2, across the sample of 189 firms these three classifications were found to have significantly different means ($F=6.69$, $p < 0.01$, when using profit-to-sales as the measure, and $F=4.08$, $p < 0.01$, for profit-to-total assets). Results of tests using standardized data were consistent with those using unstandardized data ($F=5.28$, $p < 0.01$, for profit-to-sales and $F=3.56$, $p < 0.03$, for profit-to-total assets). Based on these results it was concluded that Hypothesis 1 was supported. These general classes of diversification strategies explained approximately 6.9 per cent of the performance variance experienced by the MNEs.

In the next step, Hypothesis 2—that a MNE's degree of internationalization was positively associated with its performance—was tested. Firms were classified into one of five internationalization categories, with each category representing an interval of 20 percentage points along a

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[5] This result further supports use of sales- versus asset-based measures in a study such as this. A sales-based measure is unlikely to exhibit major distortions of performance due to new investments for which prospects are still presumably positive. Logically, new investments are undertaken in the anticipation of future profits; the capital committed and the pre-production and start-up costs will be deferred under accrual accounting as long as the investment is still presumed viable, thus not significantly affecting sales-based performance measures. In contrast, an asset-based measure *would* be impacted by new investments not yet generating their share of profits. We are indebted to an anonymous reviewer for bringing this to our attention.

Table 2. MNE performance by product diversification strategy

A: Profit-to-sales performance measure

Class of strategy	n	Mean	S.D.	95% Confidence interval for mean
High-peforming	41	4.88	0.337	3.81 to 5.94
Medium-performing	85	3.55	0.292	2.92 to 4.18
Low-performing	63	2.29	0.438	1.18 to 3.39
Total	189	3.42	0.376	2.89 to 3.94

Test of significance: $F = 6.69$ ($p < 0.002$).

B: Profit-to-total assets performance measure

Class of strategy	n	Mean	S.D.	95% Confidence interval for mean
High-performing	41	6.03	0.456	4.59 to 7.47
Medium-performing	85	4.63	0.346	3.88 to 5.37
Low-performing	63	3.32	0.525	1.99 to 4.59
Total	189	4.49	0.446	3.85 to 5.14

Test of significance: $F = 4.80$ ($p < 0.009$).

scale of 0 to 99 per cent of total sales generated by foreign affiliates. Table 3, Part A, presents the summary data from these classification efforts. Using ANOVA techniques on unstandardized firm data, it was found that the degree of internationalization variable did not significantly assist in explaining sample MNEs' relative performance. However, as shown in Table 3, Part B, these results seemed to be influenced by differences in performance due to continent of origin. When the same calculations were subsequently performed on data standardized by continent-of-origin to control for continent-based biases, results supported the hypothesized relationship between degree of internationalization and MNE performance for both the profit-to-sales ($F=2.30$, $p < 0.06$) and profit-to-total assets ($F=2.45$, $p < 0.05$) measures. The degree of internationalization variable explained approximately 5.5 per cent of the performance variation experienced by the MNEs.

The final step was to examine the interactive effect of a MNE's diversification strategy and its degree of internationalization on its relative performance. The unique strategic problems associated with managing diversification within a multinational enterprise might be exacerbated by a geographic expansion of the firm's environment (Robock and Simmonds, 1983); it was possible that diversification strategies and internationalization levels could interact to influence performance. The joint effects of the two variables on performance was examined via two-way ANOVA tests conducted on data for the full set of 200 MNEs, using both the raw as well as standardized data for both the profit-to-sales and the profit-to-total assets performance measures. Diversification strategy and degree of internationalization were specified as the independent variables and MNE performance as the dependent variable in the ANOVA runs. The null hypothesis that the two independent variables did not interact to significantly influence MNE performance was supported in both analyses ($p < 0.10$).

DISCUSSION AND CONCLUSIONS

The objective of this study was to enhance understanding of MNEs by attempting to identify variables associated with differential levels of these firms' performance. In particular, the

Table 3. MNE performance by degree of internationalization (DOI)

A: Results for non-standardized data

Performance measure	DOI						
	0 Missing data	1 0.1–19.9%	2 20.0–39.9%	3 40.0–59.9%	4 60.0–79.9%	5 80.0–99.9%	Total
Profit-to-sales	$\bar{x}=0.17$ $n=19$	$\bar{x}=3.41$ $n=53$	$\bar{x}=3.91$ $n=64$	$\bar{x}=3.84$ $n=39$	$\bar{x}=4.53$ $n=12$	$\bar{x}=2.33$ $n=13$	$\bar{x}=3.34$ $n=200$

Test of significance: $F=0.86$ ($p \leq 0.49$)

Profit-to-total assets	$\bar{x}=1.19$ $n=19$	$\bar{x}=4.36$ $n=53$	$\bar{x}=5.29$ $n=64$	$\bar{x}=4.91$ $n=39$	$\bar{x}=5.49$ $n=12$	$\bar{x}=2.84$ $n=13$	$\bar{x}=4.43$ $n=200$

Test of significance: $F=1.12$ ($p \leq 0.35$)

B: Results for data standardized by continent-of-origin

Performance measure	DOI					
	0 Missing data	1 0.1–19.9%	2 20.0–39.9%	3 40.0–59.9%	4 60.0–79.9%	5 80.0–99.9%
Profit-to-sales	$\bar{x}=-0.61$ $n=19$	$\bar{x}=-0.21$ $n=53$	$\bar{x}=-0.05$ $n=64$	$\bar{x}=0.27$ $n=39$	$\bar{x}=0.48$ $n=12$	$\bar{x}=0.25$ $n=13$

Test of significance: $F=2.30$ ($p \leq 0.06$), $n=181$

Profit-to-total assets	$\bar{x}=-0.43$ $n=19$	$\bar{x}=-0.28$ $n=53$	$\bar{x}=0.09$ $n=64$	$\bar{x}=0.24$ $n=39$	$\bar{x}=0.40$ $n=12$	$\bar{x}=0.21$ $n=13$

Test of significance: $F=2.45$ ($p \leq 0.05$), $n=181$
$\bar{x}$ = Mean

intention was to improve theory-construction efforts within the realm of international strategic management by establishing a link between dimensions of corporate strategy and MNE performance. The choice of variables for study was predicated on two principal options available to MNE managers seeking to extend their firms' core skills to yield competitive advantage: diversification of products or diversification of operations. Prior literature in the fields of strategic management and international business suggested these variables might be useful in explaining performance differences among multi-nationals. There are other factors, such as employment policies, relative size of home markets, taxation policies, and executive skill levels, *inter alia*, which may evidence relationships with the relative performance of MNEs. However, we did *not* choose to test for effects of these other variables, since our object was to conduct an exploratory analysis of potential links between MNEs' performance and the diversification strategy and degree of internationalization which characterized their operations.

As part of our explorations we attempted to test the applicability of Rumelt's (1974) seminal work on diversification strategy and performance for a sample of multinational enterprises. Our
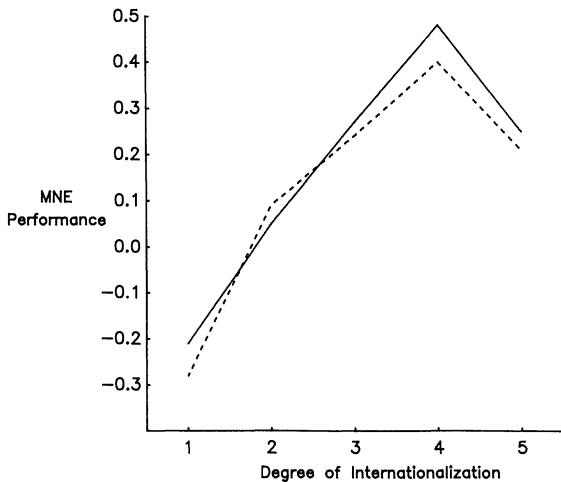
Figure 1.   Relationship between degree of internationalization and MNE performance. Profit-to-sales, ———; Profit-to-total assets, – – – –. *Note*: Graph is compiled using standardized (z-score) data controlling for effects of continent-of-origin.

analysis demonstrated that, for 200 large U.S. and European MNEs, the diversification strategy implemented by a firm was a significant variable in explaining relative corporate performance. Consistent with Rumelt's work, our data showed that MNEs pursuing related diversification strategies over an extended period of time tended to achieve significantly superior performance. This represents an important extension of Rumelt's initial findings on large American firms to the strategic management of multinationals.

The study's results also showed that degree of internationalization has an important role in understanding performance differences among MNEs. A graph of this relationship (see Figure 1) indicates that, as the degree of internationalization of multinationals reached higher values, performance also exhibited increased values but then peaked and exhibited diminished levels of performance. This more complex dimension underlying the performance of multinationals infers some critical 'internationalization threshold' for these companies' operations; beyond this threshold, maintenance of profitability rates may represent a more challenging endeavor. Several managers interviewed for this study commented that, as their firms encompassed increasingly broader geographic markets, the costs associated with geographic dispersion began escalating, sometimes quite rapidly, thus eroding profit

margins. Their firms had found it necessary to institute new organizational structures and controls to reverse performance declines. This is consistent with Grant's (1987) and Siddharthan and Lall's (1982) view on the limits of managerial capacity to cope with increased complexity. To the extent that this finding is supported by future studies of other MNEs, it would portend potentially significant ramifications for management of multinational enterprises.

As discussed, data presented in this paper support the proposition that both diversification strategy and degree of internationalization influence the performance of multinational enterprises. Although the explanatory power of these variables was not particularly high, this should not be surprising given the many other variables which were not included in the analysis. The findings support the contention that product and geographic diversification go hand-in-hand to create the complexity that characterizes multinational operations (Stopford and Dunning, 1983; Stopford and Wells, 1974). The study's results, and interview comments by executives, further suggest that it is essential for both variables to be managed in order for MNEs to obtain superior levels of performance.

The usefulness of the diversification strategy variable for explaining performance differences within a large sample of MNEs is not intuitively surprising, since the high-performing firms employed strategies which focused on the relatedness of the products they sold and the markets they served. While our findings suggest that the limited attention diversification strategy has previously received in the international business literature might be an oversight, the results may also signal a valuable opportunity for researchers. The strategic management literature has been characterized by an abundance of research on diversification strategy over the past decade or two. Most of this research has been confined to single-nation studies, particularly on U.S. firms. In light of this study's findings, researchers may consider extending the scope of their studies into the realm of international business, using non-U.S. or multi-country samples. Future research may also be directed towards the relationships between individual categories of diversification strategy and MNE performance, and additional variables which may influence these relationships. As a senior vice-president of a large MNE

pointed out, it is worth noting that the potential benefits of related diversification are just that: potential. Reaping the full rewards of diversity also requires the exercise of good managerial practices. Thus, the relationship between managerial practices and diversification strategies of MNEs represents another potentially fruitful research topic.

The relationship revealed between degree of internationalization and performance suggests that this variable should not be discarded in future investigations of MNEs' performance. As the present study has found, there may be some 'threshold of internationalization' for MNEs, above which the threats to performance seem to intensify. A focus on how and why these variables interplay may substantially enhance our understanding of the relative performance of multinational enterprises, and therefore warrants further research. Additional effort may also be directed towards refining the internationalization variable itself, to shed further light on the relationships. As used in this study, degree of internationalization represented a rough measure, and future research may improve upon its operationalization. It might prove valuable to incorporate dimensions beyond just MNE sales, although researchers may confront difficulty accessing suitable data, particularly data which are both reliable and comparable across international borders.

Finally, it is important to note that our findings relate to very large MNEs from the U.S. and Europe. A potentially fruitful avenue for further research would be to test the relevance of our results for a sample of small or medium-sized MNEs, or for MNEs from less-developed nations.

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