

B. Elango/S. Prakash Sethi

An Exploration of the Relationship between Country of Origin (COE) and the Internationalization-Performance Paradigm

Abstract and Key Results

- The relationship of internationalization with firm performance continues to be a major focus of corporate strategy. While internationalization raises important issues of risk and uncertainty, cross-cultural aspects of employee conduct and consumer behavior, market structure and competition, and political and regulatory dimensions, it also provides new opportunities for growth, profitability and organizational learning.
- This study seeks to contribute to the topic by empirically investigating the influence of the country of origin effect (COE) on the internationalization and performance relationship. COE, as defined here, is a composite variable that serves as a proxy for differential conditions that might exist in the MNC's home country, conditions which would impact the MNC's performance through internalization of attributes connected with its home country.
- The findings of this study offer strong support for the underlying notion that a MNC's home country impacts the internationalization-performance relationship. In particular, a positive linear relationship was found between internationalization and performance in countries with relatively small economies and which have extensive trade in their economy, while an inverted U-shaped relationship was found in countries with larger economies which have relatively moderate trade in their economy.

Key Words

Country of Origin Effect (COE), Internationalization, Performance, Small Open Economies, Large Economies, GDP, Trade in Goods

Authors

Balasubramanian Elango, Associate Professor of Management, Management and Quantitative Methods Department, College of Business, Illinois State University, Normal, USA.

S. Prakash Sethi, Distinguished Professor of Management, Zicklin School of Business Baruch College, City University of New York, New York, USA.

Manuscript received May 2005, revised May 2006, final version received August 2006.

Introduction

The concept of internationalization and its impact on a firm's performance has long been the subject of intense inquiry and empirical research and continues to challenge international business scholars. From the perspective of theoretical developments, internationalization of a firm has been studied in terms of efficient utilization of its resources, generating economies of scale, market expansion and diversification as a means of controlling political and financial risks, and market share protection under conditions of oligopolistic competition (Kochhar/Hitt 1995, Annavarjula/Beldona 2000, Elango 2000). Many empirical studies have been conducted on the internationalization-performance relationship, with varied patterns (e.g., positive, negative, U-shaped, and inverted U-shaped) reported.¹ Recently, attempting to combine the inverted U- and U-shaped findings, three studies tested and found support for a horizontal S-shaped relationship. However, even among these studies, differences in patterns are notable. For instance, while Contractor, Kundu, and Hsu (2003), Lu and Beamish (2004), and Thomas and Eden (2004) report a horizontal S-shaped relationship, the nature of slopes reported by Thomas and Eden (2004) is quite opposite to the earlier two studies. This literature has been reviewed in Annavarjula and Beldona (2000), Ruigrok and Wagner (2003), and more recently in Thomas and Eden (2004).

The relationship between a firm's extent of internationalization and its financial performance raises a number of complex issues, as previous research generally accepts the notion that performance outcomes of a firm's international strategy are influenced by three sets of factors, i.e., firm, industry, and home/host country (Kochhar/Hitt 1995). Extant studies incorporate largely firm- and few industry-related variables in the testing of the internationalization-performance relationship, while country influences are treated as residuals (or in a few instances partialled out using dummy variables). The underlying assumption of this research has been that all factors pertaining to the effectiveness of internationalization reside within the company.

We argue that separate treatment of country in the internationalization-performance relationship will offer greater insights into this topic. The selection of variables includes those controlled by the firm and extends to external, environment-related variables that provide the firm with some type of strategic advantage (or disadvantage) in international markets. The latter may include country-based factors where the location of a large segment of the industry may create a certain infrastructure and thus positive externalities: i.e., a form of public good, which individual firms may incorporate in their operations, thus gaining a competitive advantage. Therefore, a firm cannot isolate itself from the home country, as it incurs a complex set of costs and benefits by virtue of its home base of operations. Thus, it is inadvisable to ignore the potential impact of the home country on the performance out-

come of internationalization. This assertion deserves greater investigation, as other researchers working on this topic (e.g., Ruigrok/Wagner 2003) have suggested that one potential reason for differences in empirical findings across studies could be the country of origin of the MNC. In this paper, under the notion of country of origin effect or COE² (Sethi/Elango 1997, 1999), we argue that the home country environment would have an impact on a firm's internationalization effort and outcomes, which is independent of, and in addition to, the within-firm variables.

This study, therefore, seeks to investigate empirically the influence of the COE of the firm's home country on the internationalization-performance relationship using a sample of 1721 technology firms from 16 countries.³ Technology oriented firms are selected for the study sample, as traditional international business literature stresses that a key motivation for firms to operate abroad is to exploit their intangible resources (e.g., Hymer 1976, Caves 1982). A study focused on a single industry serves as a design control for industry effects, allowing for the capture of country influences in the internationalization-performance relationship. In the next section, we review related literature to support the notion of inclusion of home country variables in the internationalization-performance relationship. We develop two hypotheses stating how country characteristics would influence the relationship between internationalization and performance. Subsequently, we present the study design and methodology, discuss the study findings and implications, and conclude with the study's limitations.

Conceptual Background and Hypothesis Development

The relationship between internationalization and performance has been one of the key beliefs of international business theory (Vermeulen/Barkema 2002), but what remains unexplained is the impact of the MNC's home country on the internationalization-performance relationship. Several factors exist as to why home country influences should be factored into the internationalization-performance relationship. First, the notion of comparative advantage established in the early to middle 19th century has shown that some countries have higher productivity and efficiencies relative to other countries. This notion is pushed further by Porter (1990), in his work on the competitive advantage of nations, wherein he shows how industry conditions in a home nation can help derive competitive success (or failure) of firms in the international arena based on the quality of four factors, i.e., demand conditions, firm strategy and rivalry, related and supporting industries, and factor endowments. Second, every company, however global in scope, exists in a *local* environment. The societal-effect approach (Sorge/Maurice 1990) asserts that the organization-environment distinction should be ignored, as organizational practices

and processes are a reflection of the social environment in which a company operates. Finally, literature on institutions (e.g., North 1990, DiMaggio/Powell 1991, Scott 1995) indicates that institutional factors set formal and informal constraints on firm behavior. These constraints have led others to call for an institution-based view of firm strategy (Peng 2002). These theoretical rationalizations have been supported by an emerging body of literature pointing to the influence of home country on the strategic and operational choices of MNCs in overseas markets (Lenway/Murtha 1994, Li 1993, Rosenstein/Rasheed 1993, Lubatkin/Calori/Very/Veiga 1998, Harzing/Sorge 2003, Noorderhaven/Harzing 2003). With the increasing internationalization of markets in global industries, where country differences should be minimal, firm characteristics seem to match their regional environments, indicating they are still rooted locally (Duysters/Hagedoorn 2001, Hu 1992, Pauly/Reich 1997).

The conceptual rationale for such investigation to capture the impact of home country influence on firm strategy has been presented under the aegis of country of origin effect or COE (Sethi/Elango 1997, 1999). According to its proponents, COE is composed of three elements, i.e., cultural values and institutional norms; country economic and physical resources and industrial capabilities; and the national government's economic and industrial policies. They argue the premise that, for companies originating within a single country, country-based factors impact all firms from that country, and these elements will manifest themselves through the actions of firms from a particular country and induce firms from different countries to exhibit differential behavior in their strategic choices, operational modes and outcomes. Although these influences would vary for different firms from the same country, they would not be available to companies from other countries. Consequently, in international markets, COE characteristics create competitive advantage (or disadvantage) for firms from one country in comparison to firms from other countries. Therefore, in international competition with foreign firms, firms emanating from a particular country as a group would be differentiated by the COE-related influences of their home country.

For instance, a country's quality of infrastructure, regulatory structure, and legal systems are also in the nature of a public good that impact a company's operational performance and competitive strength – all else being equal – when compared with companies having a different home base. Similarly, even intangible factors such as a country's reputation or cachet, if viewed in positive (or negative) terms by the governments and citizens of another country, may give an advantage (or disadvantage) to firms from that country. For example, Germany has a reputation for precision engineering and Japan for exceptional quality in consumer electronics. While this reputation would be taken for granted in the case of well-known companies, it is likely to be of considerable help to relatively unknown companies entering foreign markets from these countries. Therefore, based on the above rationalizations and the notion that no firm is immune from the environment in which it is embedded

(Granovetter 1985, Peng 2002), we assert that home country of the firm will influence the firm's ability to capitalize on internationalization and thereby have an impact on performance. Specific empirical support for this notion can be found in Geringer, Beamish, and daCosta (1989). For instance, they found the relationship between internationalization and performance to be lacking, unless country of origin of the multinational was controlled for. This study will focus on the size and openness of the home country market (one potential dimension of the COE), as it has an impact on a firm's ability to succeed in foreign operations.

Internationalization-Performance Relationship

The internationalization and performance relationship has been shown to be a complex and multifaceted phenomenon (Kochhar/Hitt 1995). Earlier research suggests that international operations bring in significant strategic and operational benefits to a firm due to new market opportunities (Buhner 1987); economies of scale and scope (Porter 1985); factor advantages; exploiting distinctive capabilities (Hymer 1976); learning (Ghoshal 1987); flexibility (Kogut 1985); risk reduction (Shaked 1986); cross-subsidization (Hamel/Prahalad 1985); and competitive avoidance in home markets (Elango 1998). Furthermore, initial internationalization will take place in similar and proximate markets (Johanson/Vahlne 1990). In such instances, the political, financial, and business risk and adaptations needed are fewer, enabling firms to benefit from international operations without incurring huge expenditures (Daniels/Bracker 1989, Geringer et al. 1989, Gomes/Ramaswamy 1999). This study's is based on technology-oriented industries where firms face significant pressure to reduce costs but relatively less pressure to make changes in products (Prahalad/Doz 1987). In such industries, it has been argued that a firm failing to capitalize on these benefits is likely to face competitive disadvantage versus a rival who has internalized these benefits through international operations (Porter 1986). Therefore, we anticipate early internationalization will be characterized by a positive relationship with performance, irrespective of country of origin.

However, as firms increase their international exposure, we anticipate this relationship to vary based on the country of origin. This is because increasing internationalization will require operations to be dispersed in diverse markets, requiring major internal organizational adaptation to operate successfully. This will also require significant coordination and information sharing on a global basis (Hitt/Hoskisson/Ireland 1994). These internal adaptations entail changing structural, coordination, and operational control mechanisms and routines to adapt to the needs of the new environment. Firms failing to make these changes might not fully realize the benefits from internationalization, lacking the required strategic fit needed for competitive success commonly alluded to in strategy literature. This phenomenon can be explained by two commonly known constructs in the international business

and strategic management literature: *administrative heritage* and *organizational routines*, respectively. Bartlett and Ghoshal (1989) refer to *administrative heritage* as the organizational philosophy and institutional memory of a firm and claim that it impacts an organization's outlook on its operational environment. Additionally, a firm's administrative heritage influences how managers perceive and adapt to mobilizing and deploying organizational resources. The second concept, *organizational routines*, refers to behaviors (e.g., processes, mechanisms, procedures) conducted in the firm without much explicit thinking, having been proven effective in specific settings (Nelson 1991). Since the development of such routines are path-dependent, socially complex, and causally ambiguous (Barney 1991), making modifications to a firm's ingrained routines is a challenging task. We believe a firm's country of origin (i.e., small open economies vs. large economies with modest trade) could serve as an enabler or as a restrainer for a firm to make these required changes.

Small Open Economies

Firms in small open economies are forced to plan and compete in international markets even in the early stages of their development, as such markets do not provide for their survival in the home market alone (Nooderhaven/Harzing 2003). This exposure to international competition requires local firms to develop strategies and upgrade capabilities/skills to match their international competitors to survive and compete in their own home markets (Porter 1990). Firms operating in home markets with diverse competitors will enhance their routines by learning from one another (Miller/Chen 1996, Barkema/Vermeulen 1998). As these firms expand their exposure to international markets, they will be required to modify their routines to meet the needs of international operations. While this type of organizational change is a managerially challenging task, we believe firms in small open economies would be able to make these changes easily for two reasons. First, these firms, having fewer blind spots or holes in their knowledge base of international market needs, will be able to recognize the need to change their internal systems, as much of the needed changes will be within existing schemas and mental maps (Bettis/Prahalad 1986, Walsh 1995). Second and more importantly, it is very likely that these firms have or can more easily acquire requisite capabilities through the fine tuning process, as these new requirements do not conflict with existing organizational routines. They will be able to evolve through recombination of knowledge, as there is a greater similarity between current routines and new opportunities in the international market (Kogut/Zander 1996). Therefore, the lack of a large home market would serve as an enabler, as these firms would be able to adapt knowledge from their environment to existing routines, facilitating an easier evolution into diverse international markets. Therefore we propose:

Hypothesis 1. There will be a positive linear relationship between internationalization and performance in economies that are relatively small and characterized by extensive international trade among the countries studied.

Large Economies with Modest Trade

Unlike firms in small open economies, firms in large economies with modest trade can afford to grow initially without operating abroad, as large domestic markets offer them a luxury relative to smaller markets. While foreign competition may still exist in these domestic markets, it is more likely to be limited to certain market segments of the economy. Therefore, firms in such economies are likely to have evolved independently of international markets and competitors. As these firms seek international markets, they are likely to find such exposure beneficial due to strategic and operational benefits articulated earlier. Additionally, a firm's initial internationalization is likely to take place in markets very similar to its own (Johanson/Vahlne 1977) and therefore requires only incremental changes in administrative heritage and routines, resulting in profitable international operations.

However, as these firms continue to expand into diverse international markets, they will find that current administrative heritage and routines geared to serve their large domestic market will require major changes to handle a diverse and growing international market presence (Hitt/Hoskisson/Kim 1997). Since these firms have routines based on their home market, they will be unlikely to recognize market needs originating from international markets (Eriksson/Johanson/Majkgard/Sharma 1997). Additionally, limited exposure to international competitors in the home market and a diversity of customers would handicap such firms, who have a narrower range of experience and mental models to cope with increased demands (Miller/Chen 1996).

Developing newer organizational routines to match these operational requirements would require new learning for these firms to change the underlying core of their administrative heritage, beliefs, and practices (Ruigrok/Wagner 2003). Unlearning such embedded routines is difficult because "new knowledge that leads to new routines tends to conflict with existing operations and management's embedded mental models" (Knight/Cavusgil 2004, p. 128). The pull to preserve currently successful operative domestic routines and the need for creating newer routines for international operations would create significant conflict within firms (Meyer/Lieb-Do'czy 2003). Such inherently conflicting requirements within the organization will prevent such firms from achieving transnational capabilities required to succeed in international settings (Bartlett/Ghoshal 1989). These challenges include not only managing differences across countries in products and services, but also aligning incentives and behavior suited to global markets from a home market perspective (Hout/Porter/Rudden 1982). This leads to our second hypothesis:

Hypothesis 2. There will be an inverted U-shaped relationship between internationalization and performance in economies that are relatively large and characterized by modest international trade among the countries studied.

Research Methodology

Data Collection Procedure

The sample for this study was selected from the *WorldScope* database, as it provided information on the firm variables in which we were interested for a number of countries. The time period covered in this study is 1995 to 2000, primarily because 2000 was the earliest year for which macroeconomic data was available from the World Bank at the time of the study's initiation. Since we were interested in capturing the country of origin effect, we focused on the major high-income economies of the world, as it is such countries with the largest number of technology firms with international operations listed in the database. Based on our review of the database, we developed a list of 16 countries (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom and United States), accounting for the majority (roughly 56 percent) of the economic activity in the world during the time period of the study.

Within these countries, we decided to focus on technology-intensive industries for three reasons. First, one of the key arguments made in the traditional IB literature is that one of the key motivations for firms to operate abroad is to exploit its intangible resources (e.g., Hymer 1976, Caves 1982). It has been argued that, in such industries, international operations are not a matter of choice, but a necessity for a firm to be successful (Porter 1986). Therefore, we felt that such technology-intensive industries would be an ideal setting to capture the international performance linkage. Second, firms in such industries have significant exposure to international markets, serving as an ideal sample for such a study. For instance, according to the OECD, firms in such industries export about 43 percent of their products. Finally, by restricting the sample to one type of industry rather than a cross-section of industries, we felt it would serve as a control for industry effects. Using an expert panel of three (excluding the authors), we identified technology-intensive manufacturing industries by 3-digit SIC codes. The manufacturing industries included in this study are Aircraft, Computer, Drugs, Communication, Electronics, Medical devices, Missiles and Space equipment, Ophthalmic and Photographic goods, Measuring and Controlling devices, and Navigation equipment. Representative of firms in technology-intensive industries, firms in the sample on average invested about

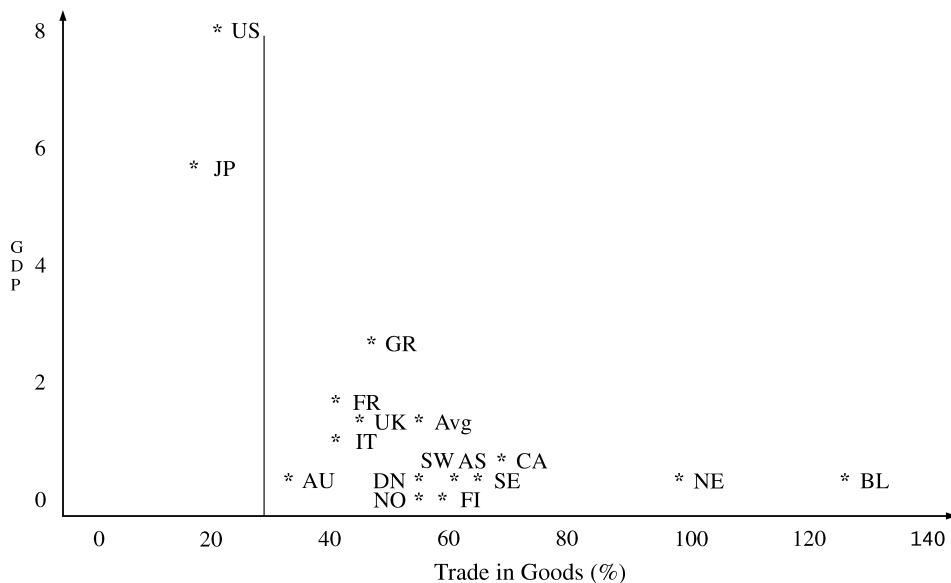
6.39 percent of their sales in research and development. We included all firms within these industries and located in one of the 16 countries for the years 1995 to 2000 that had no missing data for the study variables. The final sample consisted of 1721 firms operating in technology-intensive industries from 16 countries. Later, data was collected from World Bank publications for the years 1995 to 2000 for the two macroeconomic variables used in the study.

To categorize the countries in two groups, we used the following procedure. First, we averaged all the values for GDP and Trade in goods over the study's five year period using information published by the World Bank. While various variations of GDP measures are provided by the World Bank, the specific measure used in this study is the total output of goods and services occurring within the territory of a given country in constant 1995 U.S. dollars. Trade in goods is measured by the World Bank as the sum of exports and imports of goods and services, as a percentage of GDP. Second, we ranked the countries separately on the two variables to see if there was a natural break and categorize them into two groups. We noted in the ranking of countries that, in terms of the extent of Trade in goods, Japan and the U.S. had the least average exposure of 16.58 percent and 19.13 percent, which was significantly lower than most countries in the study sample. For instance, the next highest value was 31.50 percent for Australia, and we therefore felt this would be a natural break point. Interestingly, when we reviewed the ranking of countries in terms of GDP, the reverse was true. The U.S. and Japan had average GDP figures of 8.12 trillion US\$ and 5.51 trillion US\$ for the years 1995-2000. Germany, which had the next highest number, had an average GDP of 2.55 trillion US\$, again suggesting a natural break point. Finally, when we graphically plotted the numbers with Trade in goods as the x-axis and GDP as the y-axis (see Figure 1), our expectation that the U.S. and Japan were very different from other countries across these two dimensions was confirmed. Both these countries had significantly large economies but also the least exposure to trade when compared with other countries in the sample. Therefore we split the sample into groups and classified the U.S. and Japan as Large Economies with Modest Trade and the remaining 14 countries Small Open Economies.

Variable Operationalization

Internationalization, the primary explanatory variable of interest here, has been previously measured a number of ways and remains a subject of debate in the literature (Sullivan 1994a, Ramaswamy/Kroeck/Renforth 1996). Sullivan (1994a) calls for usage of a multidimensional measure of internationalization, while Ramaswamy et al. (1996) have shown why greater caution needs to be exercised in pursuing such an approach, as the relationship between the various forms of internationalization are much less than what will be justifiable when using them as a

Figure 1. Plot of Country GDP and Extent of Trade in Goods (1995-2000 Averages)



NOTE: GDP figures are in trillions of 1995 US dollars; Abbreviations used: AS = Austria, BL = Belgium, CA = Canada, DN = Denmark, FI = Finland, FR = France, GR = Germany, IT = Italy, JP = Japan, NE = Netherlands, NO = Norway, SE = Sweden, SW = Switzerland, UK = United Kingdom, US = United States, Avg = Average.

combined measure. This study uses the foreign sales ratio, which is measured by percentage of foreign sales to total sales, as it captures the extent of importance of international operations relative to total operations and thus the degree of dependence of the firm on foreign markets (Thomas/Eden 2004). This variation in international exposure across firms and across countries is one of the key theoretical thrusts of this study. Additionally, an obvious advantage to using this measure is that size information on this variable is available for a large number of firms across the countries studied. A majority of past studies have used this measure, allowing for meaningful comparison of results (e.g., Aggarwal 1979, Buhner 1987, Collins 1990, Grant 1987, Grant/Jammine/Thomas 1988, Kim/Hwang/Burgers 1989, Shaked 1986, Tallman/Li 1996, Geringer et al. 1989, Ruigrok/Wagner 2003, and Capar/Kotabe 2003). The idea to use asset-based measures of internationalization (also referred to as foreign production presence; see Annavarjula/Beldona 2000) instead of foreign sales ratio was considered but subsequently dropped, as differences in accounting practices across the countries studied with respect to asset depreciation, valuation, and reporting would create special confounds in our criterion variable. A weakness of using foreign sales ratio is that it captures the output side (i.e., sales) while ignoring the input side (i.e., sourcing of foreign production) of firm internationalization. Performance (the dependent variable) is operationalized as gross profit

Table 1. Variable Definition and Data Source

Variable	Definition	Data Source
<i>Dependent Variable</i>		
Financial Performance	Gross Profit Margin = Gross profits/Total revenue Operating Profit Margin = Operating income/Total revenue	WorldScope
<i>Independent Variable</i>		
Internationalization	Foreign Sales/Total Sales	WorldScope
<i>Firm Control Variables</i>		
Research Intensity	Research and Development Expenditure/Sales	WorldScope
Firm Size	Number of Employees	WorldScope
Debt Ratio	Debt/Assets held by the Firm	WorldScope
Firm Growth Rate	Percentage Change in Firm Size	WorldScope
<i>Country Control Variables</i>		
Economic Growth Rate	Percentage Change in Gross Domestic Product (GDP)	World Bank
Exchange Rate	Effective Exchange Rate Index	World Bank
<i>Country Categorization Variables</i>		
Degree of Openness	Trade in goods (represented as % of GDP)	World Bank
Size of the Economy	GDP (constant 1995 US\$)	World Bank

margin (GPM). In order to increase the robustness of the regression models tested, we use operating profit margin (OPM) as an additional measure of performance and repeat our analysis. Both measures are significant decision criteria for managers and investors when evaluating firm performance. Using conventional accounting norms, GPM is operationalized as gross profits divided by total revenue, and OPM is operationalized as operating income divided by total revenue. Using GPM and OPM to measure performance in this cross-sectional study of manufacturing industries offers an important advantage over the traditional investment-based measures (e.g., ROA or ROI). Since this is a cross-country study, such pretax measures are more relevant, as firms have no control over tax rates across countries. The remaining variables represent conventional variables and require no elaboration. The operationalizations of the variables and data sources are summarized in Table 1.

Control Variables

This study incorporates four firm-level and two country-level control variables in the testing of the relationships, based on past research practice (e.g., see Tallman/Li

1996, Hitt et al. 1997, Lu/Beamish 2001), and the logic for inclusion can be summed up as follows. *Firm size* is included, as large firms can have scale- and scope-related advantages or disadvantages in operations. Previous studies on internationalization and performance (e.g., Contractor et al. 2003) have reported mixed results, and therefore it is not clear as to the relationship of this variable with performance. *Debt ratio* is included to control for the effect of financial leverage on performance. We anticipate debt ratio to have a negative relationship with performance, as debt costs would adversely influence the earnings of a firm (Geringer/Tallman/Olsen 2000). *Research intensity* is included to control for differences in firm-specific resources. Traditional IB theory has established the importance of such firm-specific resources in influencing the choice of internationalization. Additionally, the resource-based view of the firm has articulated that such firm-specific resources affect the performance of the firm in a favorable manner (Barney 1991). Therefore, we expect a positive relationship between research intensity and performance. *Firm growth rate* is included to control for firms with higher growth rates, as such firms are likely to have lower performance in the short run. Hence, we anticipate a negative relationship between firm growth rate and performance. The two country-level variables selected were economic growth rate of the country and exchange rate, as they are known to influence firm profitability (Elango 1998). *Economic growth rate* is included, as firms located in markets with significant growth rates have an opportunity to grow and be profitable independent of their international operations. Based on previous findings reported by Chordia and Shivakumar (2002), we anticipate a positive relationship between economic growth rate and performance. *Exchange rate* is included because previous studies have indicated that when a firm expands international operations, their exposure to exchange rate fluctuations increases (Miller/Reuer 1998). Therefore, changes in the currency exchange rate of the home country can influence the profitability of the firm either adversely or favorably. We expect increasing home currency rates will have a negative impact on performance. In addition to these variables, five dummies were created for each of the years of this study.

Discussion of Findings

Descriptive information on the sample characteristics are provided in Table 2. A review of the correlation values in Table 2 indicated the risk of multicollinearity invalidating the results to be minimal for the firm variables in the model. The two country variables (exchange rate index and economic growth rate) did show a correlation of 0.637 (statically significant), as one should expect. Therefore we checked the variance inflation factor (VIF) in each of the regression models. In the case of

Table 2. Means, Standard Deviations and Correlations (N=1721)

Variables	Mean	SD	1	2	3	4	5	6	7
1. Internationalization	44.48	25.46	1						
2. Research Intensity	6.39	5.7	.121*	1					
3. Firm Size	20862	205648	.012	.028	1				
4. Debt Ratio	24.59	20.68	.028	-.104**	.014	1			
5. Firm Growth Rate	14.82	52.34	-.005	.113**	-.006	-.061*	1		
6. Economic Growth Rate	2.63	1.45	.043	.262**	.029	-.035	.112**	1	
7. Exchange Rate	99.82	13.20	.028	.235**	.037	-.036	.121**	.637**	1

*** = p<.01, ** = p<.05.

this study's variables, the VIF was significantly lower⁴ than the upper threshold value of 10 recommended by Burns and Bush (2000) for each of the eight models. Additionally, it should be noted that many leading references in econometrics and statistical methodology have offered as a rule of thumb that collinear relationships under 0.7 should not create potential problems (or statistical confounds) related to multicollinearity (Anderson, Sweeney, and Williams 1996, Griffiths, Hill, and Judge 1993). Based on the above two reasons as well as the robustness tests conducted, we concluded that multicollinearity is not a concern for this study.

We also compared firm characteristics across the types of economies, and results are reported in Table 3. In line with the assertions made in the theoretical section,

Table 3. Means Comparison of Firms Across Small Open Economies and Large Economies with Modest Trade

Variables	Small Open Economies	Large Economies With Modest Trade	Sample Means	F-Test Results
<i>Firm Level</i>				
Internationalization	59.45	36.05	44.48	415.638***
Research Intensity	6.13	6.53	6.39	1.882
Firm Size	15598	23825	20861	.635
Debt Ratio	23.51	25.20	24.59	2.649*
Firm Growth Rate	18.85	12.55	14.82	5.764***
<i>Country Level</i>				
Economic Growth Rate	2.55	2.68	2.63	3.37*
Exchange Rate	101.56	98.84	99.82	16.90***

*** = p<.01, ** = p<.05, * = p<.1.

firms in small open economies had an average exposure to international markets exceeding 59 percent, while firms in large economies with modest trade had only about 36 percent exposure. Interestingly, firms in small open economies also seem to be able to grow at a faster rate than firms in large economies with moderate trade, despite the fact that their home economies were growing at a slower rate. This finding validates one of the claimed benefits of internationalization, i.e., new market opportunities (e.g., Buhner 1987), wherein firms can grow through international markets even when domestic market growth rates slow down.

Regression models were used in the testing of the two hypotheses and the findings are reported in Table 4. As noted earlier, extant literature has reported varied findings in the relationship between internationalization and performance. This study's hypotheses propose a linear relationship between internationalization and performance in small open economies and an inverted U-shaped relationship in the case of large economies with moderate trade. In addition to testing these hypotheses, we also test for the other relationships reported in the literature (as potential rival hypotheses). In Table 4, results of the eight regression models are reported. Therefore, within each of the economies, we test for linear, quadratic (to test for U- or inverted U-shaped) and cubic (horizontal-S) models. Incremental F-values are used to determine the best fitting model for each of the economies.

Hypothesis 1 proposed a linear relationship between internationalization and performance for firms located in small open economies. The quadratic model failed to explain any additional variance over the linear model, and the squared internationalization term loaded negatively but was not supported statistically. Therefore, as seen in Table 4, study findings indicate strong support for a positive linear relationship with performance for firms in small open economies. Hypothesis 2 proposed an inverted U-shaped relationship between internationalization and performance in large economies with modest trade. The quadratic model explained statistically significant variance compared to the linear model, and both the linear and squared internationalization terms were significant in this model. The cubic model did not offer an improvement and was therefore rejected. Hence, Hypothesis 2 is supported by the study findings. Overall, this study's findings offer empirical evidence for the notion that the internationalization-performance relationship is influenced by the home country characteristics of the multinational after controlling for a country's growth rate and changes in the exchange rate.

The regression models included several variables to control confounds, so that the findings can be interpreted with confidence. In terms of firm level control variables, as expected, research intensity loaded positively in the case of all eight models tested, supporting the importance of firm-specific resources for performance (Caves 1982). For firms located in small open economies, firm growth loaded negatively on performance as expected, thereby indicating the tradeoffs between profitability and growth of the firm. For firms located in large economies with modest trade, debt ratios loaded negatively with performance, representing the costs of leverage.

Table 4. Regression Results Between Internationalization and Performance Across Countries (Dependent Variable = GPM)

<i>Independent Variables</i>	Small Open Economies (N=620)			Large Economies with Modest Trade (N=1101)		
	<i>Control</i>	<i>Linear</i>	<i>Quadratic</i>	<i>Control</i>	<i>Linear</i>	<i>Cubic</i>
Internationalization (Cube Term)						.152
Internationalization (Square Term)						-.720*
Internationalization		.256***	.330***		.016	.462***
Research Intensity	.587***	.508***	.508***	.570***	.570***	.564***
Firm Size	-.030	-.056*	-.056*	-.011	-.011	-.015
Debt Ratio	.003	-.024	-.025	-.095***	-.096***	-.098***
Firm Growth Rate	-.139***	-.113***	-.112***	.017	.017	.012
Economic Growth Rate	.103***	.139***	.140***	.053	.053	.051
Exchange Rate	-.062*	-.058*	-.055*	.028	.026	.007
Adjusted R-Square	.346	.400	.400	.392	.392	.409
F Value	30.741***	35.422***	32.684***	65.576***	61.119***	59.790***
Incremental R-Square	.054	0	[-]	0	0	[-]
Incremental F Value	29.445***	N.A.	N.A.	N.A.	N.A.	19.17***

*** = p<.01, ** = p<.05, * = p<.1.
 Five year dummies were included in all models (results not reported in the tables).
 All variables used in the regression models were mean-centered to avoid non-essential multicollinearity.

In the case of country level controls, economic growth rate loaded positively while exchange rate index loaded negatively on performance, as posited earlier. This validates the need to include these variables in models, as one would expect growing economies to have a positive effect on performance and appreciating currencies to have a negative effect on performance.

As previous research has reported varied results, the findings reported in this study are consistent with some, yet inconsistent with others. Support of the inverted U-shaped relationship has been reported in the case of the U.S. (Geringer et al. 1989, Hitt et al. 1997), which is representative of findings for large economies with modest trade. In the case of Japanese firms, only limited support can be inferred from Lu and Beamish (2001). In one of their models (Model 6, see Table 2 and Table 3), they found the number of countries in which a firm operated has an inverted U-shaped relationship, comparable to this study's findings. Other studies (e.g., Capar/Kotabe 2003, Ruigrok/Wagner 2003), which focus on German firms using a similar operationalization of internationalization (i.e., foreign sales ratio), report U-shaped relationships, in conflict with the current study, which found a linear relationship. Three recent studies, Contractor et al. (2003), Lu and Beamish (2004), and Thomas and Eden (2004), offer a three stage horizontal-S curve as an explanation with empirical support for a varied horizontal-S curve hypothesis. As seen in Table 4, cubic models did not receive any support for both categorizations of countries tested.

Two methodological reasons exist for differences in findings between the current study and extant literature. First, studies done in the last decade (1995-2005)⁵ focus primarily on U.S. firms, followed by Japanese and German firms, and in few instances use multi-country samples. The empirical analysis of these studies focus on single countries (e.g., Ruigrok/Wagner 2003) and, even in cases of multi-country samples, analysis was based on a combined sample (e.g. Contractor et al. 2003). Second, many studies in the extant literature use sample selection criteria not based on technology characteristics. Criteria used include broad categorizations (e.g., service firms: Capar/Kotabe 2003; manufacturing firms: Thomas/Eden 2004; or both: Lu/Beamish 2004), whereas this study focuses on technology-oriented firms exclusively. Hence, it is likely that the lack of control in the extant literature for the "country of origin effect" and a firm's technology orientation could be a contributor to the differences in results relative to the current study.

Robustness Testing

In order to increase our confidence in the study findings, we also conducted three sets of supplemental analysis. First, we repeated the analysis reported in Table 4 with operating profit margin (OPM) as the dependent variable. Second, since the two country variables had a high level of correlation (which might be a reason for concern despite the favorable VIF numbers), we ran the regression models with the

firm variables alone to insure that multicollinearity issues do not confound the results. Third, we added country dummies to the regression models and repeated the analysis to see if the results were stable. In each of these instances, we found the pattern of the results to be stable and consistent, even though there were variations in the beta loading and r-square values. Since there were no inferential differences compared to what is already reported in Table 4, they are not presented here.

Implications for Future Research and Practice

The notion of country characteristics and the impact of a firm's strategy outcomes has been a topic of interest in the literature. This study's specific contribution is the development of the linkage showing how country characteristics affect a firm's ability to respond to the changing needs of the strategy of internationalization, thereby impacting performance outcomes. The underlying rationalization is that firms in large economies with modest trade will have difficulties adapting to extensive internationalization due to the inherent contradictions in their administrative heritage and need to modify their organizational routines geared towards the home market, while the reverse would hold for small open economies.

The study findings highlight the need for managers to recognize the importance of home country context and its impact on strategy outcomes. In terms of performance, this study offers differing implications contingent on the home country of the firm. Managers of firms located in small open economies may want to recognize that, while the underlying demands of international competition and the need to operate in international markets may be challenging to a firm, there is a future payoff to developing such routines. Therefore, firms in such markets may want to focus on leading markets and countries early in their organizational lifecycles, to obtain the requisite capabilities. Managers of firms located in large markets with modest trade have two choices to make in terms of capitalizing on the performance benefits of internationalization. One viable choice would be to have modest international operations, as they are located in large markets and can serve their home market well using current routines, while also benefiting from an exposure to international operations. Yet another choice would be for the firm to have extensive international operations, undergoing a metamorphosis in order to gain from internationalization. Managers of such firms need to recognize that to be successful, their organization must resist the counteracting pull of home market bias and become "equidistant" (Ohmae 1990) to all the major markets in which the firm operates. Such changes can be undertaken by a firm successfully only with a fundamental transformation of its existing administrative legacy and multifaceted routines to optimize transnational demands effectively (Bartlett/Ghoshal 1989).

In relation to the literature on this topic, this study's categorization variables tie in with two elements in Porter's (1990) diamond (i.e., demand conditions and firm competition) and validate his claims on the influence of country characteristics on firm strategy outcomes. It also validates findings reported in international finance literature on stock market behavior in terms of firm valuations. For instance, Olsen and Elango (2005) report a positive relationship between multinational operations and firm value for non-U.S. firms, and a negative relationship in the case of U.S. firms. One reason offered in their study was that, with U.S. firms being located in the largest single market in terms of size, the market does not encourage the additional complexity and risk incurred by international operations, leading to a reduction in firm value. The findings of the current study call for future research to incorporate the influence of the multinational's home country in the study of the internationalization-performance relationship.

The strong loading of exchange rate and economic growth rate on performance in the case of small open economies also brings in the need for future research studies to incorporate these variables in the testing of the internationalization-performance relationship. Additionally, it would be interesting to test the temporal effects of this phenomenon by replicating the study at a later date. For instance, it would be informative to see if the pattern of results found here holds after firms in large economies successfully modify their routines to the growing demands of internationalization through experimentation, adaptation, and diffusion of successful practices of other firms.

Study Limitations and Concluding Comments

As with any study, this one has several limitations, and its findings should be interpreted within its context. First, this study is "coarse-grained" in nature, as it relies on a large sample of 1721 firms based on publicly available secondary data, and therefore suffers all the attendant limitations with conceptual and measurement issues related to such designs. Second, it focuses on one type of industry to reduce the chance that industry confounds would invalidate the findings. Therefore, this boundary condition should also apply to its findings. Third, one of the controversies in this stream of research is the measure of internationalization used. While the argument for the usage of multidimensional measures is well taken, supplemental empirical properties as well as availability and other limitations for merging various measures of internationalization is lacking, preventing the use of such measures. Fourth, international strategy performance outcomes are contingent on a multitude of issues which cannot be covered in a 16-country study with over 1700 firms. Finally, as with most studies on this topic, this study's design is cross-sectional in

nature. Therefore, due caution needs to be exercised in making inferences across the various phases of internationalization, as the regression models test only for cross-sectional patterns in the relationship between internationalization and performance. As these issues are not factored in during testing of the relationships, established caveats apply to this study. Nevertheless, replication of this study's results with time series design, larger (within cluster) samples, differing time periods, and varied country contexts will alleviate some of the limitations.

In conclusion, this study's primary motivation was to establish the idea that country of origin (COE) would impact the MNC's performance through internalization of attributes associated with its home country. To this extent, study findings indicate that the multinational's home country plays an important role in influencing international strategy outcomes, thus validating the earlier contention made by Sethi and Elango (1997, 1999). Therefore, while planning international strategies, firms should recognize that the ability to maximize and preserve gains from international operations is circumscribed by home country attributes. In order to succeed in international markets, firms need to evaluate home country characteristics and selectively internalize factors which would serve as a basis of sustainable advantage in international markets. In this regard, future researchers may want to analyze other dimensions of country characteristics and their impact on international strategy outcomes. While research on these aspects of the country of origin effect is still in its nascent stages, we hope this study will provide the initial stimulus required for researchers and managers to incorporate the influence of home country dimensions in international strategic planning.

Acknowledgements

The authors acknowledge research assistance from Ivan Abel, Chris Anderson, Shishir Paudel and Liying Zhang during the earlier phases of this study. We are also thankful for the insightful comments of the focused issue editors.

Endnotes

- 1 With a significant risk of oversimplification, previous findings can be categorized in the following manner: *Studies reporting a positive relationship*: Delios/Beamish (1999), Grant (1987), Grant/Jamine/Thomas (1988), Kim/Hwang/Burgers (1989), and Ramirez-Aleson/Espitia-Escuer (2001); *Studies reporting minimal, weak or no relationship*: Buckley/Dunning/Pearce (1978), Han/Lee/Suk (1998), Sambharya (1995), and Tallman/Li (1996); *Studies reporting a negative relationship*: Chang/Thomas (1989), Collins (1990), and Geringer/Tallman/Olsen (2000); *Studies*

- reporting a U-shaped (or inverted-U) relationship*: Capar/Kotabe (2003), Daniels/Bracker (1989), Geringer/Beamish/daCosta (1989), Ruigrok/Wagner (2003), Sullivan (1994b), Hitt/Hoskisson/Kim (1997), Gomes/Ramaswamy (1999), Lu/Beamish (2001), Mauri/Sambharya (2001), and Ruigrok/Wagner (2003); and *Studies reporting an S-shaped relationship*: Riahi-Belkaoui (1998), Contractor/Kundu/Hsu (2003), Lu/Beamish (2004), and Thomas/Eden (2004).
- 2 Comparable logic on internationalization is held in functional areas like Marketing where the term “Country-of Origin-Effects” (commonly abbreviated as COO) has been used to refer to consumer perceptions of products based on the country of origin of the good (Peterson/Jolibert 1995, Andersen/Chao 2003).
 - 3 In this study, we do not capture the impact of COE on the host country where the firm currently holds or seeks to expand its operations, referred to as country scope in internationalization-performance literature (e.g., Goerzen/Beamish 2003). The reason for this is that a firm has better control over the potential impact of host country COE due to its ability to choose those countries for overseas expansion which offer the firm the greatest positive impact or smallest negative impact in terms of COE.
 - 4 The highest VIF value across all the models was 3.78.
 - 5 Sambharya (1995): 53 U.S. Firms; Ramaswamy (1995): 25 U.S. Firms; Tallman/Li (1996): 192 U.S. Firms; Qian (2002): 169 U.S. Firms; Hitt/Hoskisson/Kim (1997): 95 U.S. Firms; Gomes/Ramaswamy (1999): 570 U.S. Firms; Delios/Beamish (1999): 399 Japanese Firms; Geringer/Tallman/Olsen (2000): 108 Japanese Firms; Lu/Beamish (2001): 164 Japanese Firms; Mauri/Sambharya (2001): 91 U.S. Firms; Ramirez-Aleson/Espitia-Escuer (2001): 152 Spanish Firms; Kotabe/Srinivasan/Aulakh (2002): 49 U.S. Firms; Qian/Li (2002): 125 U.S. Firms; Goerzen/Beamish (2003): 580 Japanese Firms; Capar/Kotabe (2003): 81 German Firms; Contractor/Kundu/Hsu (2003): 103 Firms (43 U.S.-based, the rest from 12 other countries); Ruigrok/Wagner (2003): 84 German Firms; Lu/Beamish (2004): 1059 Japanese Firms; and Thomas/Eden (2004): 151 U.S. Firms.

References

- Aggarwal, R., Investment Performance of U.S.-based Multinational Companies: Comments and a Perspective on International Diversification of Real Assets, *Journal of International Business Studies*, 11, 1, 1980, pp. 98–104.
- Andersen, P./Chao, P., Country of Origin Effects in Global Industrial Sourcing: Toward an Integrated Framework, *Management International Review*, 43, 4, 2003, pp. 339–361.
- Anderson, D. R./Sweeney, D. J./Williams, T. A., *Statistics for Business and Economics*, St. Paul, MN: West Publishing Company 1996.
- Annavarjula, M./Beldona, S., Multinationality-Performance Relationship: A Review and Reconceptualization, *International Journal of Organizational Analysis*, 8, 1, 2000, pp. 48–67.
- Barkema, H. G./Vermeulen, F., International Expansion Through Start-Up or Acquisition: A Learning Perspective, *Academy of Management Journal*, 41, 1, 1998, pp. 7–26.
- Barney, J., Firm Resources and Sustained Competitive Advantage, *Journal of Management*, 17, 1, 1991, pp. 99–120.
- Bartlett, C. A./Ghoshal, S., *Managing Across Borders: The Transnational Solution*, Boston, MA: Harvard Business School Press 1989.
- Bettis, R. A./Prahalad, C. K., The Dominant Logic: Retrospective and Extension, *Strategic Management Journal*, 16, 1, 1995, pp. 5–14.
- Buckley, P. J./Dunning, J. H./Pearce, R. D., The Influence of Firm Size, Industry Nationality and Degree of Multinationality on the Growth and Profitability of the World's Largest Firms 1966–1972, *Weltwirtschaftliches Archiv*, 114, 2, 1978, pp. 243–257.
- Buhner, R., Assessing International Diversification of West German Corporations, *Strategic Management Journal*, 8, 1, 1987, pp. 25–37.

- Burns, A. C./Bush, R. F., *Marketing Research*, Upper Saddle River, NJ: Prentice Hall 2000.
- Capar, N./Kotabe, M., The Relationship Between International Diversification and Performance of Service Firms, *Journal of International Business Studies*, 34, 4, 2003, pp. 345–355.
- Caves, R. E., *Multinational Enterprise and Economic Analysis*, Cambridge, UK: Cambridge University Press 1982.
- Chang, Y./Thomas, H., The Impact of Diversification of Risk-Return Performance, *Strategic Management Journal*, 10, 3, 1989, pp. 271–284.
- Chordia, T./Shivakumar, L., Momentum, Business Cycle, and Time-varying Expected Returns, *The Journal of Finance*, 57, 2, 2002, pp. 985–1019.
- Collins, J. M., A Market Performance Comparison of U.S. Firms Active in Domestic, Developed and Developing Countries, *Journal of International Business Studies*, 21, 2, 1990, pp. 271–287.
- Contractor, F. J./Kundu, S. K./Hsu, C., A Three-Stage Theory of International Expansion: The Link Between Multinationality and Performance in the Service Sector, *Journal of International Business Studies*, 34, 1, 2003, pp. 5–18.
- Daniels, J. D./Bracker, J., Profit Performance: Do Foreign Operations Make a Difference?, *Management International Review*, 29, 1, 1989, pp. 46–56.
- Delios, A./Beamish, P. W., Geographic Scope, Product Diversification, and the Corporate Performance of Japanese Firms, *Strategic Management Journal*, 20, 8, 1999, pp. 711–727.
- Dimaggio, P. J./Powell, W. W., The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields, *American Sociological Review*, 48, 2, 1983, pp. 147–160.
- Duysters, G./Hagedoorn, J., Do Company Strategies and Structures Converge in Global Markets? Evidence from the Computer Industry, *Journal of International Business Studies*, 32, 2, 2001, pp. 347–356.
- Elango, B., Influence of Industry and Firm Drivers on the Rate of Internationalization of U.S. Firms, *Journal of International Management*, 1, 4, 1998, pp. 201–221.
- Elango, B., An Exploratory Study into the Linkages Between Corporate Resources and the Extent and Form of Internationalization, *American Business Review*, 18, 2, 2000, pp. 12–26.
- Eriksson, K./Johanson, J./Majkgard, A./Sharma, D. D., Experimental Knowledge and Cost in the Internationalization Process, *Journal of International Business Studies*, 28, 2, 1997, pp. 337–360.
- Geringer, M. J./Beamish, P. W./daCosta, R. C., Diversification Strategy and Internationalization: Implications of MNE Performance, *Strategic Management Journal*, 10, 2, 1989, pp. 109–119.
- Geringer, M. J./Tallman, S./Olsen, D. M., Product and International Diversification Among Japanese Multinational Firms, *Strategic Management Journal*, 21, 1, 2000, pp. 51–80.
- Ghoshal, S., Global Strategy: An Organizing Framework, *Strategic Management Journal*, 8, 5, 1987, pp. 425–440.
- Goerzen, A./Beamish, P. W., Geographic Scope and Multinational Enterprise Performance, *Strategic Management Journal*, 24, 13, 2003, pp. 1289–1306.
- Gomes, L. K./Ramaswamy, K., An Empirical Examination of the Form of the Relationship Between Multinationality and Performance, *Journal of International Business Studies*, 30, 1, 1999, pp. 173–187.
- Granovetter, M., Economic Action and Social Structure: The Problem of Embeddedness, *The American Journal of Sociology*, 91, 3, 1985, pp. 481–510.
- Grant, R. M., Multinationality and Performance Among British Manufacturing Companies, *Journal of International Business Studies*, 18, 3, 1987, pp. 79–89.
- Grant, R. M./Jammine, A./Thomas, H., Diversity, Diversification, and Profitability Among British Manufacturing Companies 1972–84, *Academy of Management Journal*, 31, 4, 1988, pp. 771–801.
- Griffiths, W. E./Hill, R. C./Judge, G. G., *Learning and Practicing Econometrics*, New York: John Wiley & Sons 1993.
- Hamel, G./Prahalad, C. K., Do You Really Have a Global Strategy?, *Harvard Business Review*, 63, 4, 1985, pp. 139–148.
- Han, K./Lee, S./Suk, D., Multinationality and Firm Performance, *Multinational Business Review*, 6, 2, 1998, pp. 63–70.

- Harzing, A. W./Sorge, A., The Relative Impact of Country of Origin and Universal Contingencies on Internationalization Strategic and Corporate Control in Multinational Enterprises: Worldwide and European Perspectives, *Organization Studies*, 24, 2, 2003, pp. 187–214.
- Hitt, M. A./Hoskisson, R. E./Ireland, R. D., A Mid-Range Theory of the Interactive Effects of International and Product Diversification on Innovation and Performance, *Journal of Management*, 20, 2, 1994, pp. 297–326.
- Hitt, M. A./Hoskisson, R. E./Kim, H., International Diversification: Effects on Innovation and Firm Performance in Product Diversified Firms, *Academy of Management Journal*, 40, 4, 1997, pp. 767–798.
- Hout, T./Porter, M. E./Rudden, E., How Global Companies Win Out, *Harvard Business Review*, 60, 5, 1982, pp. 98–108.
- Hu, Y. S., Global or Stateless Corporations are National Firms with International Operations, *California Management Review*, 34, 2, 1992, pp. 107–126.
- Hymner, S. H., *The International Operations of National Firms: A Study of Foreign Direct Investment*, Cambridge, MA: MIT Press 1976.
- Johanson, J./Vahlne, J. E., The Internationalization Process of the Firm: A Model of Knowledge Development and Increasing Foreign Market Commitments, *Journal of International Business Studies*, 8, 1, 1978, pp. 23–32.
- Johanson, J./Vahlne, J. E., The Mechanism of Internationalisation, *International Marketing Review*, 7, 4, 1990, pp. 11–24.
- Kim, W. C./Hwang, P./Burgers, W. P., Global Diversification Strategy and Corporate Profit Performance, *Strategic Management Journal*, 10, 1, 1989, pp. 45–57.
- Knight, C.A./Cavusgil, S.T., Innovation, Organizational Capabilities, and the Born-Global Firm, *Journal of International Business Studies*, 35, 2, 2004, pp. 124–141.
- Kochhar, R./Hitt, M. A., Towards an Integrative Model of International Diversification, *Journal of International Management*, 1, 1, 1995, pp. 33–72.
- Kogut, B., Designing Global Strategies: Profiting from Operational Flexibility, *Sloan Management Review*, 27, 1, 1985, pp. 27–38.
- Kogut, B./Zander, U., What do Firms Do? Coordination, Identity, and Learning, *Organization Science*, 7, 5, 1996, pp. 502–518.
- Kotabe, M./Srinivasan, S. S./Aulakh, P. S., Multinationality and Firm Performance: The Moderating Role of R&D and Marketing Capabilities, *Journal of International Business Studies*, 33, 1, 2002, pp. 79–97.
- Lenway, S.A./Murtha P.A., The State as Strategist in International Business Research, *Journal of International Business Studies*, 25, 3, 1994, pp. 513–535.
- Li, P. P., How National Context Influences Corporate Strategy: A Comparison of South Korea and Taiwan, *Advances in Comparative Management*, 8, 1993, pp. 55–78.
- Lu, J. E./Beamish, P. W., The Internationalization and Performance of SMEs, *Strategic Management Journal*, 22, 6-7, 2001, pp. 565–586.
- Lu, J. E./Beamish, P. W., International Diversification and Firm Performance: The S-curve Hypothesis, *Academy of Management Journal*, 47, 4, 2004, pp. 598–609.
- Lubatkin, M./Calori, R./Very, P./Veiga, J. F., Managing Mergers Across Borders: A Two-nation Exploration of a Nationally Bound Administrative Heritage, *Organization Studies*, 9, 6, 1998, pp. 670–684.
- Mauri, A. /Sambharya, R., The Impact of Global Integration on MNC Performance: Evidence From Global Industries, *International Business Review*, 10, 4, 2001, pp. 441–454.
- Meyer, K. E./Lieb-Do'czy, E., Post-Acquisition Restructuring as Evolutionary Process, *Journal of Management Studies*, 40, 2, 2003, pp. 459–482.
- Miller, D./Chen, M. J., The Simplicity of Competitive Repertoires: An Empirical Analysis, *Strategic Management Journal*, 17, 6, 1996, pp. 419–439.
- Miller, K. D./Reuer, J. J., Firm Strategy and Economic Exposure to Foreign Exchange Rate Movements, *Journal of International Business Studies*, 29, 3, 1998, pp. 493–513.
- Nelson, R. R., Why Do Firms Differ, and How Does it Matter?, *Strategic Management Journal*, 12, Special Issue: Fundamental Research Issue in Strategy and Economics, Winter, 1991, pp. 61–74.

- Noorderhaven, A. G./Harzing, A. W., The "Country-of-Origin" in Multinational Corporations: Sources, Mechanisms and Moderating Conditions, *Management International Review*, 42, Special Issue 2, 2003, pp. 47–66.
- North, D. C., *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press 1990.
- Ohmae, K., *The Borderless World: Power and Strategy in an Interlinked World*, New York: Harper Collins 1990.
- Olsen, B./Elango, B., Do Multinational Operations Influence Firm Value? Evidence from the Triad Regions, *International Journal of Business and Economics*, 4, 1, 2005, pp. 11–28.
- Pauly, L. W./Reich, S., National Structures and Multinational Corporate Behavior: Enduring Differences in the Age of Globalization, *International Organization*, 51, 1, 1997, pp. 1–30.
- Peng, M. W., Cultures, Institutions, and Strategic Choices: Towards an Institutional Perspective on Business Strategy, in: Gannon, M./Newman, K. (eds.), *The Blackwell Handbook of Cross-Cultural Management*, Oxford, UK: Blackwell 2002, pp. 52–66.
- Peterson, R. A./Jolibert, A. J. P., A Meta-Analysis of the Country-Of-Origin Effects, *Journal of International Business Studies*, 26, 4, 1995, pp. 883–900.
- Porter, M. E., *Competitive Advantage*, New York: Free Press 1985.
- Porter, M. E., Competition in Global Industries: A Conceptual Framework, in: Porter, M.E. (ed.), *Competition in Global Industries*, Boston, MA: Harvard Business School Press 1986, pp. 15–60.
- Porter, M. E., *Competitive Advantage of Nations*, Boston, MA: Free Press 1990.
- Prahalad, C. K./Doz, Y., *The Multinational Mission: Balancing Local Demands and Global Vision*, New York: Free Press 1987.
- Qian, G., Multinationality, Product Diversification, and Profitability of Emerging US Small- and Medium-Sized Enterprises, *Journal of Business Venturing*, 17, 6, 2002, pp. 611–633.
- Qian, G./Li, J., Multinationality, Global Market Diversification, and Profitability Among the Largest U.S. Firms, *Journal of Business Research*, 55, 4, 2002, pp. 325–335.
- Ramaswamy, K., Multinationality, Configuration, and Performance: A Study of MNEs in the US Drug and Pharmaceutical Sector, *Journal of International Management*, 1, 2, 1995, pp. 231–253.
- Ramaswamy, K./Kroeck, K. G./Renforth, W., Measuring the Degree of Internationalization of Firm: A Comment, *Journal of International Business Studies*, 27, 1, 1996, pp. 167–177.
- Ramirez-Aleson, M./Espitia-Escuer, A., The Effect of International Diversification Strategy on the Performance of Spanish-based Firms During the Period 1991-1995, *Management International Review*, 41, 3, 2001, pp. 291–315.
- Riahi-Belkaoui, A., The Effects of the Degree of Internationalization on Firm Performance, *International Business Review*, 7, 3, 1998, pp. 315–321.
- Rosenstein, J./Rasheed, A., National Comparisons in Strategy: A Framework and Review, *Advances in International Comparative Management*, 8, 1993, pp. 79–99.
- Ruigrok, W./Wagner, H., Internationalization and Performance: An Organizational Learning Perspective, *Management International Review*, 43, 1, 2003, pp. 63–83.
- Sambharya, R. B., The Combined Effect of International Diversification and Product Diversification Strategies on the Performance of U.S.-based Multinational Companies, *Management International Review*, 35, 3, 1995, pp. 197–218.
- Scott, W. R., *Institutions and Organizations*, Thousand Oaks, CA: Sage 1995.
- Sethi, S. P./Elango, B., The Impact of National Characteristics and Government Policies on the International Competitive Advantage of a Country's Multinational Corporations, *Business & The Contemporary World*, 9, 4, 1997, pp. 725–741.
- Sethi, S. P./Elango, B., The Influence of 'Country of Origin' on Multinational Corporation Global Strategy, *Journal of International Management*, 5, 2, 1999, pp. 285–298.
- Shaked, I., Are Multinational Companies Safer?, *Journal of International Business Studies*, 17, 1, 1986, pp. 83–106.
- Sorge, A./Maurice, M., The Societal Effect in Strategies and Competitiveness of Machine Tool Manufacturers in France and West Germany, *The International Journal of Human Resource Management*, 1, 2, 1990, pp. 141–172.

- Sullivan, D., Measuring the Degree of Internationalization of a Firm, *Journal of International Business Studies*, 25, 2, 1994a, pp. 325–342.
- Sullivan, D., The “Threshold of Internationalization”: Replication, Extension, and Reinterpretation, *Management International Review*, 34, 2, 1994b, pp. 165–186.
- Tallman, S./Li, J. T., Effects of International Diversity and Product Diversity on the Performance of Multinational Firms, *Academy of Management Journal*, 39, 1, 1996, pp. 179–196.
- Thomas, D./Eden, L., What is the Shape of the Multinationality-Performance Relationship?, *Multinational Business Review*, 12, 1, 2004, pp. 89–110.
- Vermeulen, F./Barkema, H., Pace, Rhythm, and Scope: Process Dependence in Building a Profitable Multinational Corporation, *Strategic Management Journal*, 23, 7, 2002, pp. 637–653.
- Walsh, J. P., Managerial and Organization Cognition: Notes from a Trip Down Memory Lane, *Organization Science*, 6, 3, 1995, pp. 280–321.