# THE IMPORTANCE OF STRATEGY TO GLOBAL COMPETITORS: THE STRATEGY-PERFORMANCE RELATIONSHIP ACROSS CULTURES

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#### Abstract

This study examines the role national culture plays in the relationship between the competitive environment, firm strategies, and firm performance by extending prior empirical work to the international marketplace. We find that business strategies remain an important determinant of firm performance when considering the effects of national culture, competitive environment, and industry in which firms compete. Implications for global managers and future research are discussed.

# Background

Strategic management has a rich and multi-disciplinary literature regarding the contingency imposed by a firm's competitive environment on strategy choices. Studies of the environment's effect on firm strategy and performance draw from organization theory and industrial organization economics (see for example; Duncan, 1972; Jauch, Osborn & Glueck, 1980; Porter, 1980). Contingency theorists believe firms compete in a multidimensional environment that affects the formulation and implementation of organizational strategies intended to achieve sustained competitive advantage (Aldrich, 1979; Mitroff & Mohrman, 1987).

According to contingency theory, firms learn to adapt to the opportunities and threats imposed by their external environment or become competitively disadvantaged and are forced to exit the marketplace (Caves, Gale & Porter, 1974; Andrews, 1987). Previous studies have reported that firms operate in multifaceted domestic environments affecting strategy (Rockart, 1979; Hambrick, 1983) and performance (Scherer, 1970) both separately and interactively.

Given the increasingly global nature of competition, it is surprising that relatively little research has considered the impact that national culture has on the environment-strategy-performance relationship of the firm. Several studies suggest the importance of cultural values in explaining the differences in cross-national performance (Hofstede, 1980; Shane, 1993; Tse, Lee, Vertinsky & Wehrung, 1988). For example, one study examining national culture and performance finds that national culture explains more than half of the cross-national difference in growth patterns (Franke, Hofstede & Bond, 1991).

There are some indications that national culture may also impact firm strategies. For example, Nakata and Sivakumar (1996), in their review of the literature regarding the role of national culture on new product development, call for more empirical research examining the effects of national culture on business strategies. The authors cite the lack of adequate research to properly assess the role of culture on the environment-strategy-performance relationship.

The present study, therefore, attempts to address this set of interrelated factors that potentially affect firm performance. Specifically, we examine the role that national culture plays on the relationship between the firm's task environment, strategy, and performance by extending the work of McArthur and Nystrom (1991) into the international arena. By assessing the influence of national culture, while controlling for task environment, we find that certain firm strategies remain important determinants of performance. The next section discusses the concepts of task environment, strategy, and national culture more fully, followed by commentaries on the research hypothesis, methodology, results and discussion.

# Literature

# **The Task Environment**

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Early work describing the relationship between the task environment and firm success (Hofer, 1975) primarily focused on industry factors affecting the potential for sustaining sales growth. The task environment considered was industry munificence, i.e., the factors affecting growth rate of industries over time. Aldrich (1979) expanded the description of the task environment by adding complexity and dynamism, thereby making the task environment construct tridimensional. Environmental complexity describes the level of uniformity/heterogeneity of firms within an industry while environmental dynamism addresses the variability of industry growth, that is, market instability. Thus, the task environment forms the context in which competitive strategies are developed (Hambrick & Lei, 1985; Lee, Lee & Ulgado, 1993).

In the ground-breaking empirical study of task environments, Dess and Beard (1984) used standard industrial classifications (SIC) as a basis for measuring the

three environmental dimensions. Using objective measures, they found systematic differences in the relationship between how firm's allocate resources (strategies) and their task environments. For 52 sample industries, Dess and Beard provided factor scores and ranks on munificence, complexity, and dynamism, thereby developing objective measures of the components describing the task environment. By applying these objective measures of the competitive environment in the current study, we are able to control for the effects of the task environment on the strategies adopted by the firm. Thus, all industries in our study were placed on a level field relative to any special factors that might make certain industries easier to compete in than others.

#### The Role of Strategy

Within the confines imposed by the task environments, how a firm uses its resources reflects its approach to the marketplace and ultimately effects its financial performance (Hambrick & Lei, 1985; Andrews, 1987). A strategy framework receiving considerable recent theoretical and empirical attention is the structurestrategy-performance model popularized by Porter (1980). This framework proposes that the performance of a company depends on the strategies undertaken within a particular environment. Extending the work of Porter, McArthur and Nystrom (1991) examined the direct and moderator effects of the task environment on the strategy-performance relationship. They selected their sample of industries from Dess and Beard's (1984) study and found evidence that the task environment significantly interacts with strategies to affect performance. McArthur and Nystrom argued that the business environment modifies the form of the strategy-performance relationship. They recommended the use of all three task environment dimensions in future studies of strategy-performance and suggested that foreign competition may increase the importance of dynamism and complexity on the strategies and performance of the firm. Prescott (1986), noting that specific firm performance measures tend to bias empirical results, recommended that future studies use multiple performance measures when examining the firm's strategy-performance relationship.

# National Culture

In the global marketplace, the strategy-performance link may be affected by national culture stemming from national factors that include the country's values, norms, and beliefs. Hofstede (1980) defines culture as the collective mental programming of the people in a national context. Through empirical study, Hofstede developed a numeric classification scheme for national cultures. The four cultural dimensions that emerged from his study are individualism-collectivism, masculinity-femininity, power distance, and uncertainty avoidance.

Individualism refers to the tendency of people to look after themselves while collectivism is the belief in the importance of group decision-making. Masculinity is the degree of traditional masculine values, such as assertiveness and materiality, while femininity emphasizes concern for others and for the quality of life. Power distance is the level of acceptance by a society for the unequal distribution of power in organizations. Finally, uncertainty avoidance is the extent to which people feel threatened by ambiguity in the workplace.

More recent work proposes that national culture influences those areas where technical imperatives are weakest (Hofstede, 1983). For example, a weak technical imperative would be the development and implementation of strategies used to accomplish the firm's profit goal. In this context, Hofstede's theory of national culture predicts that culture will significantly affect business strategies as vehicles to achieve the profit goal. However, no research is known to have examined whether national culture interacts with business strategies or impacts the outcome of those strategies-firm performance.

National Factors >	Cultural Factors >	Industry Factors >	Strategy Factors >	Firm Performance
Economic systems	Values	Industry growth	Resource use	Profitability
Legal systems	Norms	Firm heterogeneity	Markets	
Political systems	Beliefs	Market instability		
Technology				

Figure 1 Conceptual Factors Affecting the Strategy-Performance Relationship

Figure 1 depicts the relationship between national factors, culture, the task environment and strategies potentially affecting firm performance. It is in this context that global competitors attempt to use the resources at their disposal to develop sustainable competitive advantage. Therefore, based on the previous, we propose the following hypothesis:

> Hypothesis 1: Holding differences in national culture, industry, and task environment constant, firm strategies will significantly affect firm performance.

#### Methodology

To test the research hypothesis, we designed a study measuring the effect of firm strategies on firm performance while holding the effects of culture, the task environment and industry constant. Financial data reflecting performance and use of resources (strategies) on 286 international companies was collected from Compustat's Global Vantage data base over the 1988-1992 time period. Data on the task environment and national culture was derived from Dess and Beard (1984) and Hofstede (1980), respectively. The measures employed are more thoroughly discussed below, and are summarized in Figure 2 comparing the concepts discussed in the literature review to the operationalized measures. The control factors used in this study consist of the four measures of national culture and three measures of the task environment. The independent variables of interest are five measures of firm strategies: inventory turnover, capital intensity, financial slack, research intensity and sales growth. The dependent variable employed is an index of firm financial performance.

National Culture >	Task Environment >	Firm Strategies >	Financial Performance
Individuality	Munificence	Inventory turnover	ROA
Masculinity	Complexity	Capital intensity	ROE
Power Distance	Dynamism	Financial slack	ROI
Uncertainty Avoidance		Research intensity	
		Sales growth	

Figure 2 Operationalized Factors Affecting the Strategy-Performance Relationship

# **Control Factors**

<u>Task Environment</u>. To control for the effects of the task environment, data was collected for all firms in each of the five highest and five lowest ranked industries on the munificence, dynamism, and complexity factors developed by Dess and Beard (1984). To find the relative five highest and five lowest industries, the standardized factor scores in the Dess and Beard study were rank ordered. The selected sample contains 286 firms representing 30 industries (five industries for each of the three high and low conditions). A validation of the Dess and Beard (1984) study was conducted by Rasheed and Prescott (1987), which provides some degree of assurance regarding the accuracy of the rankings used in the present study.

National Culture. The 286 firms in our sample represent 27 different countries. In order to assess the impact of national culture on business strategies and firm performance, measures capturing national culture were obtained from Hofstede (1980). Scores for the four cultural dimensions for each country are on a continuous scale ranging from 6 to 112. Thus, culture on the national level and task environment on the industry level are assessed using measures independent of firm financial data collected through Global Vantage.

# Strategy Measures

Five strategy measures are used as independent variables. Since we are interested in assessing the impact of resource use (strategies) on performance, three business strategies used by McArthur and Nystrom (1991) for which international data was available were replicated: inventory turnover, capital intensity, and financial slack. In addition, research intensity and sales growth were also employed to capture technology and market dominance (Hambrick, 1983; Shane, 1993). While these measures do not generally constitute a complete set of organizational strategies, they tend to provide a good sample of the strategies employed by firms in order to compete within industries (Porter, 1985).

In order to eliminate effects related to firm size, financial ratios were used. Specifically, inventory turnover is the ratio of sales to inventory; capital intensity is the ratio of assets to sales; financial slack is stockholders' equity as a percentage of total debt; research intensity is the ratio of sales to research and development expenses; and, sales growth is the annual change in gross sales. All ratios were averaged over the five year period to eliminate any potential effects attributed to cyclical variations due to macroeconomic factors such as exchange rate or regional recessions.

# **Dependent Variable**

The measure of firm performance used in this study is an index comprised of the three most commonly used ratios of financial performance: Return on equity (ROE), return on investment (ROI), and return on assets (ROA). An index was formed by conducting a principal component factor analysis and then combining the variables into a single index using the respective factor loading score to weight the individual component. The factor weights were .77, .92 and .94 for ROE, ROI, and ROA, respectively (see Appendix 1 for the full factor analysis). An index of performance was used to lessen the impact of country-based financial reporting differences, since there is evidence that financial reporting varies from country to country due to the absence of unified international accounting standards (Barrett, 1976; Gray, Shaw and McSweeney, 1981; Zarzeski, 1996). Also, an index of performance within industries (Prescott, 1986; Tosi & Gomez-Mejia, 1989).

# Results

Table 1 reports the means, standard deviations and bivariate correlations for all measures employed. On a bivariate basis, firm performance is directly related to financial slack (r=.30, p<.01), negatively related to research intensity (r=-.25, p<.01) and positively related to sales growth (r=.26, p<.01). Inventory turnover and capital intensity are not found to be significantly related to firm financial performance.

As expected, the measures of national culture, on a bivariate basis, are not statistically related to firm performance since the model in Figure 2 anticipates

		MAN	6T	1	2	3	4	5	6	7	8
1	Performance	MN 12.2	<b>ST</b> 26.8	1 1.00	2	3	4	3	U	'	U
1 2	Turnover	7.5	5.3	01	1.00						
3	Capital Intensity	.42	.25	.08	.09*	1.00					
3 4	Financial Slack	.42	.23	.30**	05	18*	1.00				
5	Research	.48	.05	25**	.05	13*	.26**	1.00			
	Sales Growth	10.6	.05 19.0	.26**	04	.09*	.18**	.17**	1.00		
6		.37	.48	13*	.14*	27**	.02	.35**	.19**	1.00	
7	Munificence High	.37	.40	14**	14*	09*	.13*	.15**	03	43**	1.00
8	Munificence Low		.43	.13*	05	.27**	13*	25**	01	25**	19**
9	Dynamism High	.10		.13* .09 <b>*</b>	03	- 11*	.06	21**	11*	26**	19**
10	Dynamism Low	.10	.30			.06	.00 14*	16**	07	38**	21**
11	Complexity High	.12	.30	.11*	.03	.00 .24**		18**	05	20**	15**
12	Complexity Low	.07	.25	.08	.07		0		.03	06	02
13	Uncertainty	55.0	21.1	01	11*	.15**	16**	03		06	
14	Power Distance	43.2	11.7	.03	09*	.09*	09*	04	01		04
15	Masculinity	62.8	18.2	04	06	.06	04	.01	04	08	.04
16	Individuality	74.9	21.1	03	.09	17**	.11	.09	.02	.04	.03
		MN	ST	9	10	11	12	13	14	15	16
1	Performance	MN 12.2	ST 26 8	9	10	11	12	13	14	15	16
1	Performance Turnover	12.2	26.8	9	10	11	12	13	14	15	16
2	Turnover	12.2 7.5	26.8 5.3	9	10	11	12	13	14	15	16
2 3	Turnover Capital Intensity	12.2 7.5 .42	26.8 5.3 .25	9	10	11	12	13	14	15	16
2 3 4	Turnover Capital Intensity Financial Slack	12.2 7.5 .42 .48	26.8 5.3 .25 .22	9	10	11	12	13	14	15	16
2 3 4 5	Turnover Capital Intensity Financial Slack Research	12.2 7.5 .42 .48 .05	26.8 5.3 .25 .22 .05	9	10	11	12	13	14	15	16
2 3 4 5 6	Turnover Capital Intensity Financial Slack Research Sales Growth	12.2 7.5 .42 .48 .05 10.6	26.8 5.3 .25 .22 .05 19.0	9	10	11	12	13	14	15	16
2 3 4 5 6 7	Turnover Capital Intensity Financial Slack Research Sales Growth Munificence High	12.2 7.5 .42 .48 .05 10.6 .37	26.8 5.3 .25 .22 .05 19.0 .48	9	10	11	12	13	14	15	16
2 3 4 5 6 7 8	Turnover Capital Intensity Financial Slack Research Sales Growth Munificence High Munificence Low	12.2 7.5 .42 .48 .05 10.6 .37 .25	26.8 5.3 .25 .22 .05 19.0 .48 .43		10	11	12	13	14	15	16
2 3 4 5 6 7 8 9	Turnover Capital Intensity Financial Slack Research Sales Growth Munificence High Munificence Low Dynamism High	12.2 7.5 .42 .48 .05 10.6 .37 .25 .10	26.8 5.3 .25 .22 .05 19.0 .48 .43 .30	1.00		11	12	13	14	15	16
2 3 4 5 6 7 8 9 10	Turnover Capital Intensity Financial Slack Research Sales Growth Munificence High Munificence Low Dynamism High Dynamism Low	12.2 7.5 .42 .48 .05 10.6 .37 .25 .10 .10	26.8 5.3 .25 .22 .05 19.0 .48 .43 .30 .30	1.00 11*	1.00		12	13	14	15	16
2 3 4 5 6 7 8 9 10 11	Turnover Capital Intensity Financial Slack Research Sales Growth Munificence High Munificence Low Dynamism High Dynamism Low Complexity High	12.2 7.5 .42 .48 .05 10.6 .37 .25 .10 .10 .12	26.8 5.3 .25 .22 .05 19.0 .48 .43 .30 .30 .30	1.00 11* 12*	1.00 13*	1.00		13	14	15	16
2 3 4 5 6 7 8 9 10 11 12	Turnover Capital Intensity Financial Slack Research Sales Growth Munificence High Munificence Low Dynamism High Dynamism Low Complexity High Complexity Low	12.2 7.5 .42 .48 .05 10.6 .37 .25 .10 .10 .10 .12 .07	26.8 5.3 .25 .22 .05 19.0 .48 .43 .30 .30 .30 .30 .25	1.00 11* 12* 09*	1.00 13* 09*	1.00 10*	1.00		14	15	16
2 3 4 5 6 7 8 9 10 11 12 13	Turnover Capital Intensity Financial Slack Research Sales Growth Munificence High Munificence Low Dynamism High Dynamism Low Complexity High Complexity Low Uncertainty	12.2 7.5 .42 .48 .05 10.6 .37 .25 .10 .10 .10 .12 .07 55.0	26.8 5.3 .25 .22 .05 19.0 .48 .43 .30 .30 .30 .25 21.1	1.00 11* 12* 09* 06	1.00 13* 09* 10*	1.00 10* .21**	1.00 .08	1.00		15	16
2 3 4 5 6 7 8 9 10 11 12 13 14	Turnover Capital Intensity Financial Slack Research Sales Growth Munificence High Munificence Low Dynamism High Dynamism Low Complexity High Complexity Low Uncertainty Power Distance	12.2 7.5 .42 .48 .05 10.6 .37 .25 .10 .10 .12 .07 55.0 43.2	26.8 5.3 .25 .22 .05 19.0 .48 .43 .30 .30 .30 .25 21.1 11.7	1.00 11* 12* 09* 06 09	1.00 13* 09* 10* 08	1.00 10* .21** .07	1.00 .08 .05	1.00 .68**	1.00		16
2 3 4 5 6 7 8 9 10 11 12 13	Turnover Capital Intensity Financial Slack Research Sales Growth Munificence High Munificence Low Dynamism High Dynamism Low Complexity High Complexity Low Uncertainty	12.2 7.5 .42 .48 .05 10.6 .37 .25 .10 .10 .10 .12 .07 55.0	26.8 5.3 .25 .22 .05 19.0 .48 .43 .30 .30 .30 .25 21.1	1.00 11* 12* 09* 06	1.00 13* 09* 10*	1.00 10* .21**	1.00 .08	1.00		1.00 60**	16

Table 1Means, Standard Deviation and Correlations

culture to affect firm strategies, rather than firm performance, directly. Table 1 provides some insight into significant bivariate relationships between national culture and firm strategies.

Specifically, uncertainty avoidance is negatively related to inventory turnover and financial slack while being positively related to capital intensity. This makes sense. In cultures where uncertainty avoidance is common, firms tend to have greater levels of organizational bureaucracy (Hofstede, 1980) which would be characterized by higher levels of capital intensity and lower levels of inventory turnover. Similarly, cultures that avoid ambiguity would tend to promote firms with relatively higher debt because bank relationships are more stable than are investor relationships resulting in lower levels of financial slack.

Similar to uncertainty avoidance, *power distance* is negatively related to inventory turnover and financial slack while being positively related to capital intensity. This appears reasonable because countries that attempt to avoid ambiguity are more likely to have higher levels of power distance between those in authority and the typical worker (Hofstede, 1980). Thus, high power distance countries will tend to have more secretive relationships with banks, thereby incurring lower financial slack.

Individualism is negatively related to capital intensity and positively related to financial slack. Individualistic countries tend to foster higher growth rates among firms (Hofstede, 1980), thereby encouraging high levels of sales relative to use of capital; this would result in lower levels of capital intensity. In cultures valuing individualism, such as the United States, firms having higher levels of financial slack would allow managers the opportunity to take quick action when market conditions provide opportunities (Hitt & Ireland, 1987).

*Masculinity* is not significantly related to any of the firm strategies. This is somewhat surprising but not inconsistent with the lack of significant masculinity relationships found in other disciplines' studies of culture (Peterson, et al., 1995; Shane, 1993). Research intensity and sales growth are not related to any of the cultural variables. This may occur because the income statement financial data comprising the two measures may simply fail to effectively capture strategic asset-related allocation decisions of the firm.

Table 2 reports the results of the regression analysis of firm strategy, culture and environment on firm financial performance. Three of the five strategy variables are significantly related to firm performance. Specifically, financial slack, a measure that compares stockholder equity to total debt, has a strong and positive effect on firm performance (b=.42, p=.0001). Research intensity, a measure of research expenditures to sales, is negatively related (b=-.24, p=.0003) to firm performance. Finally, sales growth, a measure of average sales increase over five years, is positively related (b=.27, p=.0001) to firm performance. Contrary to the results reported by McArthur and Nystrom (1991), no interactions among the variables were found to be significant.

Variables	В	SE Beta	Beta	P Value
Inventory Turnover	03	.27	006	.90
Capital Intensity	07	6.87	0006	.99
Slack	52.56	6.89	.42	.0001
Research	-126.51	34.32	24	.0003
Sales Growth	.38	.07	.27	.0001
Uncertainty	10	.21	05	.63
Power Distance	.35	.35	.09	.32
Masculinity	07	.21	03	.72
Individuality	06	.21	03	.79
Constant	-17.28	37.09	0	.64
Adjusted R <sup>2</sup>	.33			
F	5.91			
P Value	.00001			

 Table 2

 Regression of Strategy, Environment, and National Culture on Performance

# Discussion

We began this study by seeking to examine the relationship between business strategies and performance in the global marketplace while taking into account other factors that have been suggested to affect the strategy-performance relationship. By hypothesizing that business strategies would be strong predictors of performance, we sought to assess the roles that national culture, competitive environment and industry effects play in firm performance. Our study provides evidence that strategy is a dominant influence on the financial performance of international competitors. This has significant implications for global managers and academic researchers alike.

# **Managerial Implications**

The results provide evidence that national culture does not systematically affect firm performance directly but operates through the effects of the task environment and business strategies. The implications of these finding for practicing managers are three fold.

First, the findings confirm that national culture effects the firm's competitive environment as suggested by Hofstede (1983). This gives global competitors the incentive to assess the impact of culture on the operating environment prior to competing in a particular foreign market. Thus, managers from one country who attempt to manage in another country should be cognizant of the potential for different strategies across cultures. From our model of the factors impacting performance, it is evident that culture affects firm strategies through the competitive environment. For example, it has been reported that countries have different emphases on financing sources and on government restrictions on businesses. In their recent study examining this issue, Osland and Cavusgil (1996) examined U.S./China joint venture performance. They found that the role of the government was a significant force on the resulting performance of joint ventures. It is, therefore, important for managers to assess the likely role of governments when evaluating the possible strategies for ventures in host countries. Osland and Cavusgil (1996) found that governments have both a constraining and enabling effect on the strategies and performance of international ventures.

Second, our findings provide evidence that cross-national competitors within industries effectively use certain strategies to achieve competitive advantage. Specifically, financial slack is used as a very successful strategy in the global marketplace resulting in enhanced firm performance. That is, maintaining a certain level of unassigned assets allows the firm to capitalize on opportunities as they arise. This confirms the assertions by Mitroff and Mohrman (1987) that U.S. firms have the unfortunate habit of believing there is one best way to solve all problems by focusing on short-term performance without considering longer term implications. The common "fallacy of efficiency" that arises from the short term horizon of U.S. managers helps make this factor the most important determinant of success among the firms in our study. In addition, our findings suggest that the unfocused use of research and development resources results in reduced financial performance. This is consistent with the results reported by Shane (1993) where national cultural characteristics were found to significantly effect the rates of innovation. Thus, the most effective business strategies that managers should consider involve increased financial slack, focused research and development funding, and enhanced market share (sales growth). This is consistent with business strategies profiles of many successful Japanese competitors (Kono, 1984; Porter, 1990).

Finally, in the broader context it is important to extend our findings to other models of national culture. Recent work studying the differences between the cultures of countries found that countries tend to cluster together based on their similarities of workplace factors (Ronen & Shenkar, 1985). Thus, in countries that are clustered together it is more likely that managers will be able to develop successful strategies without significant assessment of the impact of culture on the competitive environment of the host country. In their recent study on the influence of national culture on the strategy of international acquisitions, Calori, Lubatkin and Very (1994) found that firms are influenced by their national heritage when acquiring firms in other countries. Their study gives strong support to our belief that being cognizant of national culture allows firms to more easily compete in culturally similar countries because the view of competitive strategies will be more consistent than in countries where the firms are culturally dissimilar.

#### **Research Issues**

There are a number of issues for future international strategy research. In this study, we found the mediating role of the competitive environment on the strategy-performance relationship reported by McArthur and Nystrom (1991) to not be evident when the effects of the environment and industry were controlled. These findings provide a useful departure for future inquiry into the interaction of culture, environment, strategy and performance.

Since the present study examined primarily single business firms by controlling at the four digit SIC level, there is still information needed about the resource decisions of firms that operate in multiple markets, that is, diversified firms. Further investigation into the role that culture has on corporate level strategy and resulting performance of the firm is suggested (also see Calori et al., 1994). Specifically, questions that still need to be answered include: What role does national culture play in the firm's decision to diversify or integrate and what are the interactive effects of culture on the strategy-performance relationship of the firm? and, Are corporate diversification strategies and business strategies consistent patterns for successful firms cross-nationally or does national culture impact the manner in which corporate diversification strategy is implemented? Thus, our study of business strategies at the basic level can be expanded to broader corporate strategies, e.g., diversification and integration. A look at broader strategies appears warranted in the international arena where firms function in multiple markets. In addition, future research should begin to focus on the effects of task environment and firm strategy on *financial market* measures of performance, rather than on traditional accounting-based measures of performance. Because the overall goal of a corporation is to improve shareholder wealth, market measures capturing this are a logical next step.

# Limitations

In some ways, the present study raises as many questions as it seems to answer. For example, why were the moderator effects of the environment reported by McArthur and Nystrom (1991) not found in the present study? One explanation could be that the dichotomous measures used as control variables for the three components of the competitive environment were not fined-grained enough to detect the moderator effect. Yet, perhaps the answer lies in the broad-based approach of the present study that considered factors underlying the environmental measures, thereby allowing business strategies to explain the maximum amount of variance in performance.

Another unresolved question addresses why inventory turnover and capital intensity were not found to be significant predictors of performance as reported by McArthur and Nystrom (1991). Perhaps these two business strategies do not vary significantly for the size of firms examined. The firms contained in the present study tended to be very large manufacturing firms that aggressively compete globally. According to Scherer (1970), firm size has the effect of reducing the variance in firm approaches (strategies) employed in the marketplace. Thus we would expect, for example, the variation in capital intensity of global machine tool firms to be fairly similar. Fall 1997

There is one major limitation of this study. We examined only thirty industries because our research design required a dichotomization of the three task environments: munificence, complexity, and dynamism. We examined only the high and low conditions for each environment in order to determine whether the task environment as an effect on firm performance across companies internationally. This design was necessary, due to the numerous interactions expected across the variables of interest. We believe the limitation is a reasonable trade-off for the information obtained.

#### Conclusion

This present study is meant to be an investigation of the importance of business strategy on firm performance when simultaneously considering the effects of national culture and competitive environment. We found that three business strategies made a significant difference in firm performance. This gives managers the added emphasis to pay close attention when setting strategic targets, especially when considering financial slack, allocating research funds, and setting market share targets. It is these strategies that were found to be strong determinants of enhanced performance within the firms' competitive markets. Given the results of our study, global managers should: (1) seek to enhance the levels of financial slack in their firms to allow adequate resources for capitalizing on opportunities as they arise, (2) use resources for research and development sparingly and only when directed toward market share enhancement, and (3) assess the underlying national culture for each country in which they wish to compete to ensure a thorough understanding of the potential impact of the government and behavior of potential venture partners. It is our hope that future research will provide additional pieces to the cross-national strategy-performance puzzle.

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# Appendix

# **Factor Analysis of Performance Variables**

Variable	Significance	Variance	Factor Loading	
Return on Equity	2.34	.78	.77721	
Return on Investment	.54	.18	.91989	
Return on Assets	.12	.04	.94391	
Firm Performance = .77	(ROE) + .92 (ROI)	+ .94 (ROA)		

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