

## **Is Entrepreneurial Orientation a Global Construct? A Multi-Country Study of Entrepreneurial Orientation, Growth Strategy, and Performance**

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*The role of entrepreneurial orientation (EO) in influencing firm behavior is one of the primary areas of attention for the burgeoning stream of international entrepreneurship research. This study examines two research questions: (1) Is the EO construct generalizable to countries beyond North America? (2) If EO is generalizable, what is its relationship to firm performance in international contexts? Using a sample of 1,045 firms from 17 countries on 4 continents, we found support for the uni-dimensional entrepreneurial posture construct noting that it significantly predicted firm profitability and changes in net worth.*

**Key Words:** Entrepreneurial orientation; international entrepreneurship; multi-national samples

### **I. Introduction**

Although characteristics of entrepreneurship as firm behavior have been conceptualized for some time (Covin and Slevin 1991; Miller 1983) entrepreneurial orientation (EO) is receiving increased empirical attention among entrepreneurship scholars (Brown, Davidsson, and Wiklund 2001; Lumpkin and Dess 1996; Wiklund 1999). However, much of the research on this construct to date has focused on defining and refining the construct (Kreiser, Marino, and Weaver 2002; Lumpkin and Dess 1996). Therefore, studies linking it to firm performance have been somewhat limited (Knight 1997; Lyon, Lumpkin, and

Dess 2000), particularly concerning its relationship to firm performance in multi-country contexts (Zahra and George 2002).

As research in international management in general and international entrepreneurship in particular has developed, there has been increasing concern about the generalizability of organizational constructs developed in North America to other research settings (Hofstede 1993; Kreiser et al. 2002). Although a series of studies by Scott Shane, Rita McGrath, Ian MacMillan, and their colleagues found constructs of individual-level entrepreneurship to be generalizable to multi-country settings (McGrath and MacMillan 1992; McGrath, MacMillan and Scheinberg 1992; Shane, Venkataraman and MacMillan 1995), firm-level constructs of entrepreneurship have yet to receive this level of cross-country empirical attention. Although Kreiser and colleagues (2002) recently found support for the generalizability of Covin and Slevin's (1989) measure of the EO construct, their sample was comprised of only six countries. Other studies of EO have tended

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to use single-country samples (Knight 1997; Lee, Lee and Pennings 2001; Wiklund 1999). Therefore, there still are questions regarding the dimensionality of the EO construct and, specifically, the extent to which it is generalizable to multi-country settings. This concern has been highlighted by Aldrich (2000), who observed that North American entrepreneurship researchers have tended to assume that constructs are universal without testing them to see whether this is actually the case.

In this paper, we help answer the question of the generalizability of the EO construct and its relationship to firm performance in multi-country contexts. By doing so, we seek to build upon research such as that of Kreiser and colleagues (2002) on the internationality of EO by assessing the construct's generalizability to a larger number of countries. The remainder of the paper is divided into three sections. In the first section, we review the literature on the EO construct to provide the background for our hypotheses. In the second section, we report the development of a sample of over 1,000 entrepreneurial firms from 17 countries on 4 continents, the measures we used, and the results of our hypothesis tests. In the final section, we describe how our findings continue the work of previous literature, identify interesting directions for future research, and discuss potential implications for researchers, entrepreneurs, and managers seeking to be entrepreneurial.

## **II. Literature Review and Hypothesis Development**

### *A. Previous Research of the EO Construct*

EO has been an area of increased research attention in recent years. Originally conceptualized as entrepreneurial posture by Miller (1983), the construct was developed using three characteristics—risk-taking,

innovation, and proactiveness. Subsequent work by Covin and Slevin (1989; 1991) conceptually and empirically grounded the construct as a primary characteristic of firm-level entrepreneurial behavior. Recent research on EO has focused on two often intersecting questions: (1) Is the construct uni-dimensional or multi-dimensional? (2) Is the construct generalizable to settings outside the United States? The debate over the dimensionality of EO has emerged as the conceptualization of the construct has broadened. Although Miller (1983) contended that the construct was unidimensional, others have argued that conceptualizing EO as a multi-dimensional construct may provide benefits such as stronger and more significant relationships between entrepreneurial orientation and firm performance (Lumpkin and Dess, 1996; Zahra, Jennings and Kuratko 1999).

Recent research on the dimensionality of the construct has produced mixed results. Some researchers have found strong support for a multi-dimensional construct (Kreiser et al. 2002; Yoo 2001); whereas, others have found stronger support for a uni-dimensional construct with multiple characteristics (Brown et al. 2001; Lee et al. 2001; Wiklund 1999). To date, using non-U.S. samples has done little to resolve this debate. Although these samples have supported the notion of a generalizable construct, with the notable exception of Kreiser and colleagues' (2002) six-country sample, they have been developed using single-country samples. Knight (1997) found support for the generalizability of a uni-dimensional construct in a sample of English-speaking and French-speaking Canadian firms. Wiklund (1999) and Brown and colleagues (2001) found support for a uni-dimensional construct with multiple characteristics in their studies of Swedish firms. The results of this review suggest that the EO construct is generalizable to settings

outside the United States and that the construct tends to be uni-dimensional in nature. Therefore, we present the following hypothesis:

*Hypothesis 1: In a multi-country sample, EO will be a distinct, uni-dimensional construct.*

*B. Internationalization, Growth Strategy, and the EO/Performance Relationship*

Recent research has raised concerns about a direct relationship between EO and performance (Dess et al. 1997; Lyon et al. 2000; Wiklund and Shepherd 2003) suggesting that this relationship may be moderated by characteristics such as the nature of the environment or other organizational factors (Dess et al. 1997; Lumpkin and Dess 1996; Zahra and Covin 1995). Conversely, researchers using samples of non-U. S. firms have found support for a direct relationship between EO and firm performance (Wiklund 1999; Lee et al. 2001). One issue in interpreting these findings is how firm performance is measured. Empirical studies have focused on the impact of EO on outcomes such as return on equity/assets/sales (Zahra and Covin 1995), growth of the firm (Matsuno, Metzner and Özsomer 2002; Wiklund 1999; Zahra and Covin 1995), and innovation (Matsuno et al. 2002). Although these performance measures are important, studies that have examined the direct impact of EO on wealth creation are much more limited.

Rowe (2001) suggested that leadership in entrepreneurial firms enhances wealth creation. Strategic leadership is comprised of many of the traditional EO qualities supporting strong performance expectations (Rowe 2001). Ireland et al. (2001) suggested that EO measured the extent to which a firm was engaged in the entrepreneurial behaviors through which firm wealth is created. In addition Lyon et al. (2000) noted that EO is fundamental to a firm's attempt to exploit

profitable wealth-creating opportunities. To date, no empirical studies have directly linked EO and its components to firm wealth. Therefore, this study extends current research in two ways. First, it broadens the performance impact of EO to include wealth creation. Second, it considers the relationship between EO and firm wealth in an international context. Therefore, we will extend these findings to hypothesize about the entrepreneurial orientation/performance relationship in multiple countries.

*Hypothesis 2: In a multi-country sample, EO will be associated with entrepreneurial firm performance.*

A firm's EO also may have implications on how it pursues growth. Longitudinal research on high-growth firms by Davidsson and Delmar (1997) suggests that firm age and size may influence the growth strategy/firm growth relationship. They found that younger and smaller growth-oriented firms tended to pursue organic growth; whereas, older and larger firms tended to pursue growth through acquisitions. If a primary objective of entrepreneurship is wealth creation (Ireland et al. 2001), then the use and creation of resources focuses attention on organic growth through the expansion of the firm's current activities (Davidsson and Wiklund 2000). However, there may be other options for growth-oriented firms. Firms may pursue mergers and/or acquisitions when resource constraints limit their ability to produce internally generated innovation and/or knowledge (Hitt, Hoskisson and Ireland 1990). By acquiring the human and physical resources of another firm, there may be opportunities to recombine the knowledge base in ways that add value to the firm such as entry into new markets or enhanced internal efficiencies (Brush, Greene and Hart 2001). This use of both internally and externally oriented

growth strategies suggests the following hypotheses:

*Hypothesis 3: Developing new products/markets internally will be associated with entrepreneurial firm performance.*

*Hypothesis 4: Developing new products/markets via mergers/acquisitions will be associated with entrepreneurial firm performance.*

### III. Methods

#### A. Background

The sample for this study consisted of finalists in the 2000 Entrepreneur Of The Year® competition. These finalists were asked to complete the *International Survey of Entrepreneurs* Designed to explore key strategies that impact a firm's ability to achieve and sustain profitability and growth, the *International Survey of Entrepreneurs* probes for relationships between "vitality" (i.e., above average profits and sales growth) and a firm's entrepreneurial orientation (i.e., level of innovativeness, proactiveness, and willingness to risk). It also examines the strategies, structures, and environments that produce exceptional performance in a dynamic business environment.

#### B. Procedures

Drawing largely upon the work of Covin and Slevin (1989), the second and third authors of this study developed an English version of the *International Survey of Entrepreneurs* during the summer of 1999. They then sent the completed questionnaire to native-speaking Ernst and Young managers located around the world for translation into eight other languages (i.e., Czech, Danish, Dutch, French, German, Italian, Spanish, and Swedish). The translated

versions subsequently were edited and (in some cases) re-translated by professional linguists located in the United States. Any disputes over wording were resolved after consultation between the authors and the two sets of translators. The Ernst and Young translators worked to ensure that business terminology was reflected accurately in the survey. The professional linguists strove to make sure that the questionnaire was fluid and culturally appropriate. When all parties were satisfied that the survey reflected the intent of the authors and the highest linguistic standards, the *International Survey of Entrepreneurs* was printed in nine languages and distributed to Entrepreneur Of The Year® country managers in 16 countries (Belgium, Canada, Czech Republic, Denmark, France, Germany, India, Ireland, Italy, The Netherlands, New Zealand, South Africa, Spain, Sweden, Switzerland, and the United Kingdom). In the U.S., surveys were mailed directly to the finalists by the Kauffman Foundation.

Each country participating in the 2000 Entrepreneur Of The Year® awards program was allowed to administer the *International Survey of Entrepreneurs* to its respective finalists in a manner deemed appropriate by the country. In some cases this meant that finalists were asked to complete the questionnaire at the time of their face-to-face interview (a standard feature of the selection process worldwide), but for most this meant that the questionnaires were mailed or delivered to finalists; and then the finalists returned the questionnaires anonymously via mail (and at their convenience) to Ernst and Young's country manager or the Kauffman Foundation. Although this procedure did not allow the authors to track responses in countries other than the U.S., it was necessary to obtain the cooperation of Ernst and Young's country managers. It is also believed to have produced a higher response rate than otherwise would have been obtainable.

### C. Sample

Ernst and Young's Entrepreneur Of The Year® finalists are founders and/or CEOs of arguably the most innovative and admired companies in the world. Having risen to the top of a highly competitive field of nominees through a rigorous and independent selection process, they and their companies are unquestionably "entrepreneurial" and represent the "best of the best" in terms of growth, profitability, and job creation (Davidsson 1991). Although each country is given some latitude with the specific procedures it follows and the criteria it utilizes in selecting its respective Entrepreneurs Of The Year®, all nominees are carefully screened; and all financial statements are audited for veracity. Personal characteristics and situations are factored into the judging process, but firm performance is critical to being named "Entrepreneur Of The Year."

The authors recognize that a sample frame featuring Entrepreneur Of The Year® finalists is unusual in the entrepreneurship literature. These subjects are certainly an elite group, and using them begs questions regarding range restriction and relevance. However, there are compelling reasons to investigate the perceptions of *proven* entrepreneurs. Further, features of the Ernst and Young® selection process make this particular group an ideal subject pool for this specific research question. The Entrepreneur Of The Year® awards program is a highly structured international endeavor. Although the 2000 competition included no countries from South America and only one each from Asia (India) and Africa (South Africa), it was a high-profile enterprise in 17 nations. Thus, it provides a convenient means for reaching a multi-national sample of entrepreneurs who might otherwise be impossible to investigate.

More importantly, the selection of this sample is justified from a theoretical perspective. All firm-level, empirical, entrepreneurship research must explain why its subjects should be considered "entrepreneurial." However, samples utilized to date in entrepreneurship research are based most often on convenience factors such as size, age, or industry – characteristics that are not theoretically linked to entrepreneurial orientation (Carland, Hoy, Boulton and Carland 1984; Davidsson 2005). The qualities of innovation and growth orientation, on the other hand, are widely accepted in the literature as key distinguishing features of true entrepreneurship. As a result, this particular sample has advantages. The purpose of the Entrepreneur Of The Year® awards program, now nearly two decades old, is to nominate and recognize innovative, growth-oriented entrepreneurs and their firms. It provides a means for independently validating the EO of the firms included in this research. It also ensures the veracity of the financial data reported by the interviewees. Therefore, we can say with confidence that Entrepreneur Of The Year® finalists are indeed "entrepreneurs" and that the performance measures utilized in this research are accurate.

Finally, we argue that the imperfections inherent in the sample frame are ultimately not detrimental to the research. Since the purpose of the study is to test an accepted instrument across multiple countries, the sample need not be representative within each country. Rather, all that is required in a study such as this is that the sample be theoretically defensible and consistently derived across contexts. This sample clearly satisfies these two criteria.

### D. Measures

Consistent with recent studies of international entrepreneurship and EO (Baird,

Lyles, and Orris 1994; Preece, Miles, and Baetz 1999), we used multiple measures of firm performance. Because the assets a firm holds may vary widely depending upon firm size and industry, we measured firm profitability using Return on Sales (ROS). Since many recent studies consider wealth creation to be a primary criterion of an entrepreneurial firm (Ireland et al. 2001; Reynolds et al. 2001), we also included the change in the firm's net worth over the three-year period as a performance variable.

We measured the EO characteristics of risk-taking, proactivity, and innovativeness using Covin and Slevin's (1989) nine-item instrument. To measure growth strategy, we used the percentage of new products/services and markets gained over the three-year study period through internal development or mergers/acquisitions, respectively. Several control variables were also incorporated into the study. To account for conditions at the beginning of the study period, firm age was included in the analysis (Chandler and Hanks 1994; Kazanjian and Drazin 1990). Since the effects of firm size are already accounted for in the "sales growth index" variable, a sales-based measure of firm size was not included in this analysis as a control variable. However, following Davidsson and Wiklund's (2000) prescription to control for conditions at the beginning of a study period, we used the firm's number of employees at the beginning of the study as a measure of the firm's size. Considering that we have a multi-national sample and that previous research suggests that degree of internationalization may influence an entrepreneurial firm's performance (McDougall and Oviatt 1996; Preece et al. 1999; Rueber and Fischer 2002), we also controlled for the firm's degree of internationalization. Since some international business researchers have expressed that a multi-dimensional measure of internationalization captures a firm's international

orientation more completely than the single item foreign sales/total sales ratio (Rueber and Fischer 1997; Sullivan 1994), we used three items to develop our measure of firm internationalization: the foreign sales/total sales ratio, the percentage of the firm's total capital placed outside its headquarters country, and the percentage of the firm's employees permanently located outside its headquarters country. The coefficient alpha for these items was .79.

### *E. Outlying Values*

Most empirical studies in the social sciences employ multivariate techniques, which are only appropriate when data distributions are approximately normal. Therefore, for this study, all variables were checked for normality. Normality was evaluated by checking for skewness and kurtosis using SAS's UNIVARIATE procedure. Based on the results of these tests, measures for sales, profitability, net worth, and number of employees were adjusted with a 10 percent winsorization (Kennedy, Lakonishok, and Shaw 1992). A variable was winsorized whenever the absolute value of its skewness or kurtosis was greater than three.

## **IV. Results**

Approximately 4,000 surveys were distributed for this study, and 1,045 of the Entrepreneur Of The Year® finalists responded indicating a response rate of around 25 percent. However, because of the way in which the data were collected, determining the exact response rate of any of the countries other than the United States was not possible. In the United States, 1,200 surveys were mailed to Entrepreneur Of The Year® finalists; and 361 useable responses were received. Thus, the response rate for the U.S. portion of the survey was 30.1 percent. Statistical comparisons to non-respondents

with regard to firm size and age did not reveal any significant differences suggesting that response bias does not seem to be an issue with this sample.

Table 1 provides the descriptive statistics for the variables in this study. It should be noted that although the means for dependent variables are relatively high, the standard deviations indicate a wide range of performance within the sample. In fact although nearly all firms (1042 of 1045) had positive scores on the sales growth index, over one-fifth (232 of 1045) had negative returns on sales; and over one-fourth (278 of

1045) had negative changes in net worth during the period of the study. These performance indicators suggest that although some characteristics make this sample unique, it is not comprised exclusively of high-performing firms.

Hypothesis 1 predicted that EO would be measurable as a distinct, uni-dimensional construct. The coefficient alpha for the EO items was .68, which is similar to and even exceeds alphas found in recent studies using non-North American samples (Brown et al. 2001; Lee et al. 2001; Wiklund 1999). Therefore, Hypothesis 1 is supported.

**Table 1**

**Descriptive Statistics of Study Variables (n=1045)**

Variable	Mean	S. D.
Sales Growth Index	4814174.49	59236714.88
Return on Sales	.08	.40
Change in Net Worth	5556368.41	10817992.55
1997 Employees	240.31	874.58
Firm Age	32.08	163.24
Degree of Internationalization	10.67	16.30
Entrepreneurial Orientation	5.12	0.83
Products/Services Developed Internally	88.23	26.29
Products/Services Through Merger/Acquisition	7.94	19.58
Markets Developed Internally	89.80	24.09
Markets Through Merger/Acquisition	7.71	19.39

Table 2 shows the results from a regression designed to test Hypotheses 2-4 by using EO, the development of new products/markets internally and the development of new products/markets by merger/acquisition to predict each of the three performance variables. Hypothesis 2 predicts a significant relationship between

EO and firm performance; and, as expected, EO is a positive predictor of net worth. However, as seen in Table 2, there is a negative relationship between EO and return on sales and no statistically significant relationship between EO and sales growth. Thus, Hypothesis 2 finds only partial support.

**Table 2**

**Results of Regression Analysis with Entrepreneurial Orientation**

Variable	Sales Growth Index	Return on Sales	Change in Net Worth
Intercept	-9715102.71	.50***	120394.86
1997 Employees	3169.26	.00	1781.11***
Firm Age	125795.23***	-.00	342.82
Degree of Internationalization	-41818.94	-.00	43673.43*
Entrepreneurial Orientation	-516458.10	-.03*	977401.22**
Products/Services Developed Internally	62735.57	-.00	8871.40
Products/Services Through Merger/Acquisition	50644.60	-.00	27376.44
Markets Developed Internally	70697.83	-.00*	-23832.65
Markets Through Merger/Acquisition	69380.57	-.00	86760.97**
F	18.15***	1.96*	13.10***
Df	8, 1035	8, 1036	8, 1036
Adj R-squared	.12	.01	.08

Note: + p<.1

\* p<.05

\*\* p<.01

\*\*\*p<.001



Hypothesis 3 predicted that products and/or markets developed internally would be associated with entrepreneurial firm performance. Markets developed internally are negatively associated with profitability, indicating marginal support for this hypothesis. Hypothesis 4 predicted that products and/or markets developed via merger/acquisition would be associated with entrepreneurial firm performance. Markets developed via merger/acquisition were significant positive predictors of changes in net worth only. So although this hypothesis received stronger support than did Hypothesis 3, this support is only moderate at best. In addition to these hypothesized relationships, other variables significantly predicted at least one aspect of firm performance. Both the firm's number of employees at the beginning of the study and degree of internationalization positively predicted changes in net worth; whereas, firm age positively predicted sales growth.

## V. Discussion

### A. Significant Findings

This study builds on emerging research that examines EO using multi-country samples. The primary contribution of our study is that unlike other theoretical constructs developed in North America, EO appears to be somewhat globally generalizable to developed countries as a uni-dimensional construct. In a sense, ours is a replication study of previous research. However, from the perspective of theoretical relevance (Davidsson 2005), replication rather than statistical significance testing is the crucial test of the theory. The fact that up to 13 of the 17 countries represented in our sample were not included in previous studies of EO suggests the construct has great potential for explaining firm be-

havior in developing countries. Our findings suggest that like individual characteristics of entrepreneurship (McGrath and MacMillan 1992; Shane, Kolvareid and Westhead 1991), firm level characteristics of entrepreneurship also may be generalizable across borders.

Contrary to Kreiser and colleagues' (2002) work, our findings provide additional support for the argument that EO is a uni-dimensional construct with multiple characteristics rather than a multi-dimensional construct. Our reliability for the single dimension measures of EO ( $\alpha=.68$ ) was slightly better than those of other studies of non-U.S. firms (Brown et al. 2001; Wiklund 1999). However, although the reliability measures of the EO construct were slightly better than those of recent studies, the reliability of these items was just below the recommended coefficient alpha of .70 for basic research (Nunnally 1978). This suggests that further refinement of these measures is necessary to reliably assess the EO in international contexts (Brown et al. 2001) and that further replication of this study in developing countries would be a useful future direction for EO research (Davidsson 2005).

In addition to differences in the distribution of countries (only The Netherlands and Sweden were common to the two samples) and a possible performance bias given the selection criteria for our sample, one possible explanation for the difference in findings between our and Kreiser and colleagues' (2002) study may be attributed to industry effects (Dess, Ireland and Hitt 1990). Kreiser and colleagues (2002) did not report industry categories in their study, but it is interesting to note that recent EO studies in multiple industry settings also have identified a single-dimension EO construct (Brown et al. 2001; Wiklund and Shepherd 2003). A particularly noteworthy characteristic of our sample in the context of EO research is the relatively small representation of

manufacturing firms (261 of 1045, 24.97%). Since manufacturing firms historically have been a prime focus of EO research (Barringer and Bluedorn 1999; Covin and Slevin 1989; Matsuno et al. 2002), our findings support a growing number of studies suggesting that the dimensionality of EO may be influenced by industry factors. Therefore, whether EO is more prevalent and/or multi-dimensional in particular industries should be considered by future researchers as they design their studies.

By showing significant direct relationships between some performance aspects and not others, our findings provide additional support for the idea that EO may be a moderator rather than a direct influence of firm performance (Lee et al. 2001; Lumpkin and Dess 1996; Lyon et al. 2000; Matsuno et al. 2002). This study also provides insights into what some of these moderators might be. Ours is one of the few studies to use net worth as a performance measure, and we found that, along with EO, both internationalization and growth strategies based upon mergers and acquisitions were significant predictors of changes in net worth. It may be that growth-oriented firms with higher levels of EO spend more time trying to identify potential opportunities that acquisitions create; and since they have had to manage resources quite efficiently from their inception, they can better integrate them into their existing operations (Arbaugh and Camp 2000; Hambrick and Crozier 1985). A higher level of EO also could influence the increasingly common "born global" phenomenon (McDougall, Shane and Oviatt 1994) or accelerate a firm's internationalization process (Preece et al. 1999; Rueber and Fischer 2002). Both of these possibilities should be examined in future research.

### *B. Limitations*

As with all studies, this one has several limitations that should be considered when interpreting our findings. The primary limitation of the study is the nature of the sample. Although we argued earlier that the sample was theoretically relevant rather than statistically representative (Davidsson 2005) and is not necessarily a sample of "high-performing" firms, the selection criteria likely have resulted in a sample comprised of firms that are relatively well regarded within their respective country, and, therefore, may not be fully generalizable to their country's general population of firms. Therefore, even though the sample's scores for EO are normally distributed, it is quite possible that this sample's scores for these variables were higher than those for the general population of firms located in each country. The implications of these sample limitations may be somewhat dependent upon characteristics such as the level of entrepreneurial activity within each country and how entrepreneurship is perceived (Davidsson 2005). For countries in the sample with relatively low levels of entrepreneurial activity such as Belgium, the Netherlands, and Sweden (Reynolds et al. 2001), firms in this sample are more likely to be outliers in the general population. Conversely, for countries with relatively high entrepreneurial activity such as New Zealand, Ireland, and the United States, the sample more likely reflects the general population. However, sampling issues have been a challenge for entrepreneurship research for quite some time (Aldrich et al. 1989; Busenitz and Murphy 1996). Therefore, we encourage future researchers to adopt Davidsson's (2005) recommended strategy of replication to support or refute our findings, particularly for those countries in our sample for which no previous studies of EO have been done.

Other limitations of the study are found in the measures, data collection, and analysis. First, although we did gather multi-year performance data, our data for EO/EP was collected at the end of the study period. This prevents us from being able to infer the extent to which past attitudes and behavior have influenced subsequent performance, and, therefore, may explain why we did not see stronger EO-performance relationships. Second, although this is a study of firm level behavior, our research is based upon the responses of a single informant from each firm. Although this single informant, the entrepreneur/CEO, may be best able to assess the overall condition of his/her firm, aspects of the firm's EO may be overestimated or underestimated (Davidsson 2005). Third, although all firms in the sample were considered by at least some people to be outstanding, not all firms in the sample were growing rapidly. Finally, because of the present lack of multi-country entrepreneurship research, it is quite difficult theoretically to infer the extent to which our findings have been influenced by country-specific factors. We heartily encourage other researchers to address these concerns in future studies.

### C. Implications

Our findings generate several potential implications for entrepreneurs, entrepreneurial managers, and researchers. The findings provide some support that, like characteristics of entrepreneurs, firm-level EO may be generalizable across countries. A clear indication is that entrepreneurial behavior could be applied regardless of country setting. The findings also suggest that the presence of EO with the simultaneous pursuit of international markets and mergers and/or acquisitions is strongly associated with wealth creation. This suggests that an absence of EO may be a

factor in explaining why the relationship between these characteristics and firm performance has been somewhat inconsistent in previous research and also suggests that firms need to further cultivate/attract/acquire this orientation if they wish to be successful.

Somewhat surprisingly, we found that while EO predicted wealth creation, it was not a significant predictor of firm growth. This raises the possibility that although the construct may be generalizable across countries, its influence on firm performance may vary substantially. We expect that our findings should be a springboard for researchers to determine whether country-specific differences exist in EO. This research could be extended beyond Europe and North America to include more representation from Asian and African nations. If future research shows that country-based differences do exist, then expectations and prescriptions for economic development would need to be developed on a country-by-country basis rather than by generalized prescriptions. Finally, our finding for support of a uni-dimensional rather than a multi-dimensional measure of EO suggests that characteristics such as national culture may moderate the nature of entrepreneurial orientation (Hayton, George, & Zahra 2002). We particularly encourage researchers to consider the interaction of these variables as they develop future studies.

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