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Abstract
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Keywords
public, benefit, international, operations, study, human resource, value, firm, diversity

Comments
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HOW NEW VENTURE INITIAL PUBLIC OFFERINGS BENEFIT FROM INTERNATIONAL OPERATIONS: A STUDY OF HUMAN RESOURCE VALUE

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This paper has not undergone formal review or approval of the faculty of the ILR School. It is intended to make results of Center research available to others interested in preliminary form to encourage discussion and suggestions.

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ABSTRACT

When internationalization goes beyond simply having international sales to having international operations, organizations can benefit from diversity of ideas and knowledge. Our study focuses on a special class of companies called new venture firms. As younger organizations, they may be well equipped to embrace the unique benefits of international diversity. However, new ventures may not be equal in this regard; therefore, our study also explores the moderating effect of human resource value for these firms.

The globalization of business affects firms of all sizes and extent of business experience, ranging from large well-established firms to small ventures seeking high growth (McDougall, Shane & Oviatt, 1994; Porter, 1985). As a result, internationalization appears to be a goal for increasing numbers of small as well as large firms. Given the importance and size of global markets in addition to the criticality of supporting new ventures for job growth and innovation, the implications of internationalization for performance of smaller organizations is of significant academic and practical concern (Admiraal, 1996; Braunerhjelm, 1993; McDougall & Oviatt, 1996).

The focus of our research is on the effects of one particular form of internationalization – having international operations (a separate business location with employees in a different country) on firm performance for a specific class of new ventures. Oviatt and McDougall (1994) and McDougall and Oviatt (1996) drew attention to international new ventures (firms that are 8 years old or less) by bringing together the literatures on international business and entrepreneurship. They defined an international new venture as: “a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries” (Oviatt & McDougall, 1994: 49). We focus on a subset of new ventures (retaining their definition of less than 8 years in age) by studying new ventures going through the initial public offering (IPO) process. New venture IPOs should be particularly able to benefit from having international operations because they do not have the types of bureaucracy and well established routines that can hinder change and that are often evident in larger, older businesses (Acs & Preston, 1997; Braunerhjelm, 1993).

The benefits of international operations that we address rest on the assumption that the firm has an internal environment capable of quickly embracing and operationalizing new ideas and knowledge. While new venture firms with international operations may outperform their peers, we expect that within the group of new ventures, those firms that place high value on employees will be even more able to take advantage of the international operations. This is because firms that value their employees are willing to listen to workers, thus creating an environment where everyone shares knowledge and contributes to the overall mission, strategy, and vision of the firm (Pfeffer, 1998; Welbourne & Andrews, 1996). This concept is not new in the international literature. Oviatt and McDougall (1995) note the importance of shared vision and the ability of the leadership team to communicate vision to all employees.

Based on prior research on international new ventures, strategic human resource management, and the resource-based view of the firm, we propose that new ventures placing high value on employees are in a position to take the most advantage from international operations. As a result, we expect the highest longer-term performance gains (stock price growth) to accrue to new ventures that have both international operations and high levels of human resource value (they value their employees).

INTERNATIONAL OPERATIONS FOR NEW VENTURES

Even though internationalization is a phenomenon that affects both large and small firms, most of the international research conducted to date has addressed issues involving larger and older corporations (Bartlett & Ghoshal, 1992; Cavusgil & Das, 1997). Using a broad range of performance measures, numerous studies have found support for the hypothesis that multinational enterprises will have better performance than domestic firms (e.g. Beamish, Craig & McLellan, 1993; Daniels & Bracker, 1989; Markides & Ittner, 1994). However, it has also been suggested that the benefits of internationalization should be weighed against the risks. Werner, Brouthers and Brouthers (1996) argue that international business opportunities (for firms of any size or age) are inherently more risky than are domestic activities.

Although the arguments have been largely based on evidence from larger firms, recent studies have examined the costs and benefits of internationalization for smaller and younger firms (Buckley, 1997; Kohn, 1997; McDougall & Oviatt, 1996). These mixed results provide some support for the assumption that smaller firms are likely to be less successful than larger firms when embarking on international business because internationalization is a process that requires factors (or resources) such as the experience that comes with being more established, larger in size, and older (Andersen, 1993; Stopford & Wells, 1972).

However, research conducted by Oviatt and McDougall (1994) and Welch and Luostarinen (1988) shows that many new ventures can compete successfully in international markets. Although research on international IPOs is scarce, the work that has been done to date supports the idea that new venture IPOs can be successful when they engage in the international process. For example, Bloodgood, Sapienza and Almeida (1996) used a resource-based view to examine the antecedents and outcomes of internationalization in a sample of IPOs. They found the international experience of the top management team to be an important predictor of firm performance.

The international business literature tells us that internationalization can endow the firm with relevant knowledge and permit the development of “paths of learning” which will enhance

firm performance (Barkema, Bell & Pennings, 1996). This suggests that international firms must "learn" quickly if they are to survive. We suggest that newer ventures are more able to do this because they are not burdened with bureaucracy and systems that can defray learning. We argue that a major advantage of having international operations is that it offers the opportunity to enhance the diversity and knowledge base of an organization (Kamoche, 1996). Although workforce diversity, or demographic heterogeneity, brings some management challenges (Ng & Tung, 1998), it has been argued to increase diversity in information sources, individual effectiveness and productivity, expertise, and creativity (Ng & Tung, 1998; Wiersema & Bantel, 1992). Workforce diversity and concomitant diversity of knowledge can provide the firm with longer-term competitive advantage. Further, this skill is particularly important for new ventures, as diversity of knowledge should compensate for any deficiencies in experiential knowledge held by the 'parent country' managers of the new venture (Bloodgood et al., 1996; Kamoche, 1996).

Hypothesis 1: New venture IPO firms with international operations will outperform their peers.

Our logic in associating new ventures with higher performance when they are international can be tied to the concept of human resource value (Welbourne and Andrews, 1996). We utilize a variable developed by Welbourne and Andrews (1996) that measures variance in the degree to which firms consider their employees to be important resources. This variable, *human resource value,* affects organizational performance because it increases structural cohesion, "an employee generated synergy that propels the company forward" (Welbourne & Andrews, 1996: 896). In a firm with high human resource value, employees are considered to be a source of competitive advantage, and this will be reflected in the firm's strategy, mission statement, and operating practices. Valuing human resources will enable the firm to take advantage of the benefits of diversity brought by internationalization.

The need for a strong focus on employees is also echoed by work done in the strategic international human resource management (SIHRM) literature. There is an emergent body of work that highlights the benefits of strategic and proactive approaches to SIHRM throughout the internationalization process (Schuler, Dowling & De Cieri, 1993; Stroh & Caligiuri, 1998; Taylor, Beechler & Napier, 1996). Relationships between human resources and firm performance have been highlighted by recent research taking a resource-based perspective (Kamoche, 1996), which views human resources as capable of providing sustained competitive advantage, as they are valuable, rare, inimitable, and non-substitutable resources (Barney,

1991; Kamoche, 1996; Taylor et al., 1996). Using the resource-based view, Kamoche (1996) suggested that knowledge held by a diverse and geographically dispersed workforce in an international new venture is created and diffused through the firm via networks of interaction and movement of employees across international operations.

Thus, there is evidence from numerous literatures that a focus on employees can aid in the internationalization process. We suggest that it is particularly important for international new ventures because, in their unique position of being young and quickly able to take advantage of the opportunities of internationalization, human resource value can be an important asset in mobilizing resources.

Hypothesis 2: New venture IPOs with international operations will maximize longer-term firm performance when they have higher levels of human resource value.

METHOD

Our study was conducted with a cohort of firms that went public in 1993. The year 1993 was chosen in order to examine longer-term performance (thus, we measure performance from 1993 to years ending 1996 and 1997). The data for this study come from several different sources, including the firm's prospectus, The IPO Reporter, the Security Data Corporation database, and COMPUSTAT.

Although 706 firms went public in 1993, only 585 firms produced a good or service (others were real estate trusts or other organizational forms that had no employees, therefore, we excluded them from the study). We were able to obtain prospectuses for 535 of those firms. Given the interest of this study was new ventures, we limited our sample to only those firms that were 8 years old or less. One additional restriction was an exclusion of firms based outside of the United States. As a result, the final sample consists of 277 firms.

Coding New Venture Status

Researchers studying new ventures have noted that obtaining new venture status is not easy because founding date, which is in most cases used to define whether a firm is a new venture, is not as easily accessible as incorporation date, which is required in SEC documentation (Shrader, 1996). We also found this to be a problem for our study, and we addressed it by doing two things. First, we made phone calls to all of the organizations in our sample (however, we only reached 109) to verify founding date (see Appendix A for detailed discussion of the process and results). Second, we ran our analyses using company age calculated by using both founding date (n=214) and incorporation date (n=277). The results

indicate no difference in the pattern of results; therefore, not all of the dual analyses are presented in our paper.

Prospectus Data Collection and Coding

Several variables used in the analysis (primarily the control variables) were obtained from the prospectus. The prospectus is the document provided to the Securities and Exchange Commission (SEC) prior to the public offering, and it is also the document circulated by the underwriter to assess demand for the firm's stock. The SEC requires that firms follow strict guidelines in the format. In fact, the firm is legally liable for any information that might mislead investors (O'Flaherty, 1984). As noted by Beatty and Zajac (1994), top management is accountable to the SEC and to stockholders regarding the contents of the prospectus. The Securities Act of 1933 sets the requirements for the prospectus, thus assuring consistency in the type of information that is included in the document.

A team of four coders read the prospectuses and coded the data used for the study. Detailed coding rules were developed based on prior research that gathered similar data (Welbourne & Andrews, 1996). A random sample of the prospectuses was cross-coded, and agreement on all the variables used in this study was over 90%.

Independent Variables

International operations. We coded the prospectus to determine if a firm had a location or operation in another country (other than the United States). Although we could not verify the number of employees at each site, we only coded this variable ‘yes’ if the firm had a location (building or specific business operation) in the other country. We were able to obtain data on number of employees at the site for only 15 of the companies. Of those, the mean number of employees is 184 (s.d. = 184), with a median of 20 and a range from 4 to 1,538. Our coding involved a careful reading of the business section of the prospectus. Each variable was coded as a dummy variable (0/1), with 0 meaning that there were no international operations mentioned and 1 indicating there was an international location. The international operation may be a manufacturing facility or a regional office of the company (with management, sales, and customer support staff for example). Of the 277 organizations in our sample, 70 (25%) have international operations at the time of their IPO. Within the smaller sample (using founding date), 56 or 26% have international operations.

Human Resource Value

The measure of human resource value was obtained in the same way that Welbourne and Andrews (1996) measured the construct. The following items were coded (most are

dichotomous variables), and the construct was created by summing scores on each of the following: (1) whether the firm's strategy statements cited employees as a source of competitive advantage, (2) whether the organization had a training program for employees (indicating resource allocation for firm-specific education), (3) if the management list contains a vice president of human resources, (4) utilizing full-time (vs. part-time, temporary, or contract) employees (firms reporting temporary workers were coded as 0, lowering their overall human resource value score), and (5) their score on employee relations climate, which is reported by all firms (we coded poor or satisfactory as 0, 1 for good relations, 2 for excellent employee relations). The summed human resource value variable has a value range from 0 to 6, with a mean of 4.50 and standard deviation of 1.45.

Dependent Variables

Long-term stock price performance. We use several measures of stock price change in order to measure longer-term performance of the IPO firms. The first is a measure of change in stock price (adjusted for splits, buybacks, and any other changes that affect unit price of the stock) from the time of the IPO through year ending 1996. The average stock price change from IPO to year-end 1996 (for the larger sample using incorporation date) is .74 (s.d. = 2.64). Given that the prime reason investors choose to put money into an IPO is to make money when the firm's stock price increases over time, stock price growth is a reasonable measure of performance for the IPO sample. Further, market-based measures represent the most prevalent and relevant firm performance measures in the IPO literature [see Ibbotson and Ritter, 1995 for a review; also see Becker and Huselid (in press)]. In addition to the three-year stock price performance measure, we examined our hypotheses using two different measures of four-year performance. The first is change in stock price from the IPO to September, 1997. The second is the stock performance compared to the NASDAQ from IPO to September, 1997 (which helps account for the timing of the company's IPO, in terms of day and month within 1993).

Control Variables

Several control variables were used in the analyses. Total number of employees in addition to total sales are included as measures of firm size. The mean number of employees is 895 (median is 150) and standard deviation is 2,984. Average sales (in thousands) is $12,339 (s.d. = $36,293). Net profit per share at the time of the IPO is added as a performance measure (mean is .07, s.d. = .54). Dichotomous variables for industry are used, and we utilize the 9 categories recommended by the Small Business Administration and used

in prior IPO research (Welbourne & Andrews, 1996). Firms within the sample, however, fall into the following categories: mining (4), construction (1), manufacturing (143), transportation, communication, electric and gas (19), wholesale trade (16), retail trade (23), finance, insurance, and real estate (8), and services (54). There were 9 firms coded as missing, and no firms were in the agriculture category (which was the 9th category used by the SBA).

Although our sample of IPO firms consists of higher risk ventures, we expect that each firm will be subject to varying degrees of risk. Therefore, an additional control variable indicates the level of risk faced by each firm at the time of the IPO. Each prospectus contains a section listing all risk factors faced by the firm, which must be disclosed to meet the requirements of the Securities and Exchange Commission. Prior research on initial public offering firms found that this measure was a useful way to code risk (Beatty & Zajac, 1994; Rasheed & Datta, 1994). The presence of the following risk factors were included in this measure: new product, few or limited products, limited number of years in operation, inexperienced management, technical risk, seasonality, customer dependence, supplier dependence, inexperienced underwriters, competition, legal proceedings against company, liability, and government regulation. The summate risk measure ranged from 1 to 11, with a mean of 4.05 and a standard deviation of 1.58.

RESULTS

Table 1 includes the means, standard deviations, and correlation matrix for the terms included in the regression analyses predicting stock price performance.

TABLE 1
DESCRIPTIVE STATISTICS AND CORRELATIONS FOR VARIABLES USED IN THE ANALYSES
(SAMPLE USING INCORPORATION DATE)

	Mean	St. Dev	1	2	3	4	5	6	7	8	9	10	11
1. International operations (0/1)	.26	.44	1.00										
2. Human resource value	4.49	1.50	-.02	1.00									
3. Interaction term (HR value x International ops)	1.14	2.07	.94	.15	1.00								
4. Company age	3.62	2.63	.04	.009	.03	1.00							
5. Net profit per share	.07	.54	.12	.13	.12	-.001	1.00						
6. Number of employees	895	2984	.02	-.03	.02	.14	.20	1.00					
7. Sales ($000)	12,339	36,293	.11	.005	.11	.08	.34	.82	1.00				
8. Total risk factors	4.05	1.58	-.02	.009	.003	.15	-.35	.20	-.19	1.00			
9. Stock price growth (IPO to 1996)	.72	2.64	.26	.02	.29	-.01	.20	.12	.12	-.05	1.00		
10. Stock price growth (IPO to 1997)	1.46	3.45	.29	.03	.32	-.09	.16	.04	.05	.02	.88	1.00	
11. Stock price growth NASDAQ	-3.47	3.02	.27	.02	.30	-.06	.13	.007	.007	.02	.88	.99	1.00

Correlations above .12 are significant at the $p \leq .05$ level; correlations above .15 are significant at $p \leq .01$, and correlations above .21 are significant at $p \leq .001$.

Table 2 shows the results of six different ordinary least square regression equations predicting stock price growth. The first two equations test hypothesis one using both the sample based on founding date and the sample based on incorporation date. In both analyses, predicting stock price growth from IPO to year-end 1996) we find support for hypothesis one, which states that international operations will have a positive effect on long-term performance. The standardized beta coefficient is .13 ($p \leq .10$) for the sample using founding date and .23 ($p \leq .001$) for the sample using incorporation date. The analysis for additional dependent variables yields the same pattern of results.

In order to test hypothesis two, we ran four different analyses. The first two predict stock price growth from IPO to year-end 1996 for both samples. As can be seen in Table 2, the results for both samples support hypothesis two in that the interaction term is significant. The two follow-up analyses using stock price growth from IPO to year-end 1997 are for the incorporation date sample only. We did run the analyses for both samples, and the beta coefficients were the same. However, in the founding date sample the overall equation was not statistically significant; therefore, we chose not to report those results. As can be seen in the table, both analyses yield comparable results supporting hypothesis two.

TABLE 2

RESULTS OF REGRESSION ANALYSES

FOR INTERNATIONAL SALES AND INTERNATIONAL OPERATIONS EFFECTS

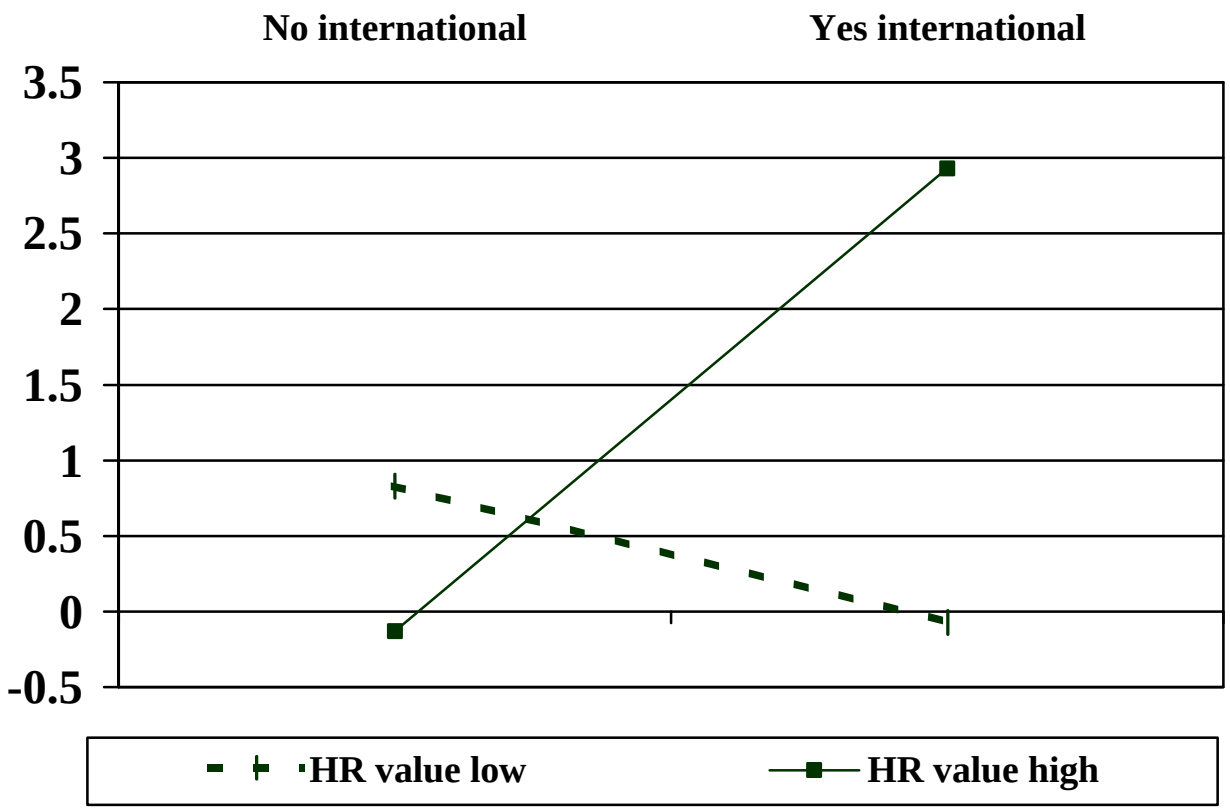
Factors	Direct effects		IPO to 1996	IPO to 1996	IPO to 1997	IPO to 1997
	Founding	Incorporated	Founding date	Incorporation date		vs. NASDAQ
	Beta	Beta	Beta	Beta	Beta	Beta
Control variables						
Company age	.07	-.05	.07	-.04	-.09	-.08
Number of employees	.09	.11	.09	.11	.08	.07
Sales	.001	-.04	-.002	-.04	-.09	-.10
Net income per share	.13+	.18**	.13+	.18**	.12+	.13*
Total risk factors	.01	.05	.01	.04	.07	.07
Independent variables						
International operations	.13+	.23***	-.27	-.18	-.18	-.15
Human resource value			-.09	-.07	-.07	-.06
Interaction term (international * HRV)			.44*	.43*	.44*	.41*
R^2	.12	.11	.14	.13	.10	.11
F	2.12**	2.41**	2.21**	2.45**	1.48**	2.06**

*** $p \leq .001$; ** $p \leq .01$; * $p \leq .05$; + $p \leq .10$

Industry codes included in all analyses although not shown. Standardized beta coefficients are reported.

The first two analyses (predicting stock price growth from the time of the IPO to year-end 1996) indicate that our hypothesis on the interaction between human resource value and international operations is supported and significant and in the direction predicted. Figure 1 includes a graph that demonstrates the relationship between human resource value and international status. Numbers on the graph were derived by using the constant and beta coefficients associated with the relevant terms from the regression equation (Cohen & Cohen, 1983). Firms that are international at the time of their IPO and that place higher value in their employees outperform their peers.

FIGURE 1
INTERACTION BETWEEN INTERNATIONAL OPERATIONS AND HR VALUE



DISCUSSION

Our analyses for longer-term shareholder return support both hypotheses one and two. The key result, however, is support for hypothesis two, which suggests that the reason new venture IPOs benefit from international operations may be linked to the 'people side' of the business. If the interaction term were not significant, then we could assume the benefits to new ventures accrue simply through their expansion to new markets. However, our results suggest that internationalization brings benefits derived from having a diverse workforce. Companies that place higher value on their employees seem to be better able to reap the benefits of having international operations, at least when we study the effects on long-term shareholder return. Our results confirm Oviatt and McDougall's (1994) notions about the importance of unique resources. As they suggested, international status and valuing unique resources (such as employees) have positive impacts on the firm's performance. In addition, this finding is consistent with prior work on human resource value in IPO firms (Welbourne, 1997; Welbourne & Andrews, 1996).

Limitations

This study has several limitations that should be taken into consideration when interpreting the findings. First, international status is defined as a dichotomous variable. Further research to develop a consistent measure of degree of internationalization, preferably by considering the percentage of firms in the international location and perhaps gathering data on management style and more traditional human resource management measures (e.g. Sullivan, 1996). In addition, there is a very good chance that existence of international operations changed from the time of the IPO through year-end 1996.

Additionally, we suggest that stock price is a measure that is important given our context (newly public firms). But stock price growth or shareholder return is still only one measure of firm performance. Additional studies that address multiple measures of performance, including measures that focus directly on assessments of the success of the international venture, would be useful. Researchers may also want to examine performance of international new venture IPOs versus larger, more established firms (perhaps in ways more similar to those done by researchers in finance and accounting, e.g. Ritter, 1991).

Another limitation concerns our measure of human resource value. Although used in prior research on IPOs (Welbourne & Andrews, 1996), this measure is fairly new. Future research that focuses on the construct validity of this measure in addition to the process of creating human resource value within the firm would be useful. Specifically, studies that

address the relationship between human resource value and more traditional measures of strategic HRM can contribute to the study of international new ventures.

Lastly, we do not yet know the degree to which the results from our study can be generalized to other samples, such as non-IPO new ventures, mid-size firms, or larger organizations. Additional research is needed to answer that question.

Conclusion

This study was designed to merge literature in international business, entrepreneurship and human resource management in order to improve our understanding of the role that internationalization plays in the performance of new venture IPO firms. We contribute to the international business literature by extending work on international new ventures in two ways. First, we study a unique subsample of new ventures, initial public offering firms. These companies are important because they are creating jobs, wealth, and innovation. By understanding the conditions under which these firms can be more successful, academics and practitioners can assist smaller, growth-oriented firms. At the same time, we contribute to the literature on initial public offering firms. As noted earlier, there is very little work that focuses on internal management issues within international new venture IPOs. Therefore, our research contributes to what we hope is a growing body of work designed to understand how internationalization and other growth strategies affect new venture IPOs. By contributing to the international business, new venture, and IPO literatures, we also provide additional research to the growing body of entrepreneurship research that encompasses all of these areas of study. We have also augmented the literature by building understanding of the role of human resource value in firm performance, using a performance measure that is different from prior work on this topic, which examined firm survival (Welbourne & Andrews, 1996).

Lastly, we think that our study makes several contributions to the growing body of research in strategic international human resource management (SIHRM) (Schuler et al., 1993; Taylor et al., 1996). We propose that future research could explore the question of whether human resource value does the same for large firms or for medium-sized firms. This may provide evidence for the emergent espousal of SIHRM as a source of competitive advantage in multinational enterprises (Stroh & Caligiuri, 1998; Taylor et al., 1996).

Overall, it seems that our study, which is at the intersection of several literatures, is a fairly new area of research, and we hope that our conceptual work and findings (with limitations recognized) spur future studies in all the fields that we have attempted to

incorporate into our work. Future research can benefit from our multi-disciplinary approach to theoretical advancement.

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APPENDIX A

FOUNDING DATE VERIFICATION

Because these firms went public in 1993, many had changed names or addresses since 1993, and we were unable to reach all of them. However, we did talk to representatives from 109 organizations (e.g. investor relations executive, chief executive officer, or legal counsel). Of those, we found that the incorporation date was correct in all but four organizations. When incorporation date was disputed, the difference between the date reported in the prospectus and the one suggested by the person on the phone was between one and three years. The founding date was correct in 83% of the firms for which we had a founding date. Of the firms for which the founding date was incorrect, only 23% of the organizations had dates that were off by more than four years. Of those, the person with whom we talked was not certain the date they were giving us was correct.

Unfortunately, phone calls presented us with yet another problem. The person answering the phone may or may not have been accurate in their assessment of founding. We quickly found that definitions of founding date varied. For instance, is the date of founding the time when the 'entrepreneur' first created the product (this may have been as part of his/her own consulting or while he/she was still with an old employer)? Or was it the date that the company moved into its building? Or is founding the date when the firm hired its first 'real' employee? Or is founding considered to be the date when the company was incorporated? We also ran into the dilemma that a firm may have been run a certain way for many years (let's say as a family owned small business), but then it was sold and incorporated in preparation for the IPO. When the firm was sold, the organization's goals and objectives may have changed. Obviously, the topic of founding date is one that warrants further study; however, for the purposes of our study, we attempted to minimize the problems associated with the multiple definitions of 'new venture' by running our data analyses in two different ways.

We ran our analyses using both founding and incorporation date. With incorporation date, we know that it is accurate, and we can equalize all firms in terms of knowing that at this date each company filed papers to be an incorporated business. This may, perhaps, be the best way to operationalize new venture for the purpose of our study of IPO firms. Since we are focused on what the firm does after the IPO, it may be more useful to consider its age in terms of the age of the 'institution' that is engaging in the IPO and planning to grow. The firm, in its form prior to the incorporation date, may be a very different business from the one that is entering into the IPO process. The total sample when using founding date is 214, and the total sample when using incorporation date is 277.