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COUNTRY INSTITUTIONAL PROFILES: UNLOCKING ENTREPRENEURIAL PHENOMENA

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This study introduces and validates a measure of country institutional profile for entrepreneurship consisting of regulatory, cognitive, and normative dimensions. Subscales based on data from six countries show reliability, discriminant validity, and external validity. The instrument provides researchers with a valuable resource for exploring why entrepreneurs in one country may have a competitive advantage over entrepreneurs in other countries and how specific country-level institutional differences contribute differently to levels and types of entrepreneurship.

Entrepreneurship has long been viewed as an engine that drives innovation and promotes economic development (Reynolds, 1997; Schumpeter, 1934). For instance, countries such as Great Britain and the United States industrialized fairly rapidly because entrepreneurial skills were allowed to proliferate (Casson, 1990; Storey, 1994). Entrepreneurship is currently revitalizing some formerly planned economies (Chow & Fung, 1996), and it has facilitated economic growth in many others (Acs, 1992; Aronson, 1991; Oviatt & McDougall, 1994; Storey, 1994). However, scholars have only a limited understanding of why rates of entrepreneurship vary cross-nationally and why certain types of start-ups may be more successful in one country than in another (Aronson, 1991; Rondinelli & Kasarda, 1992). A greater understanding of na-

tional differences will aid entrepreneurship researchers as well as would-be entrepreneurs, potential investors, and government policy makers trying to revitalize their national economies.

It is clear that the definition of entrepreneurship is multidimensional and that different research questions draw attention to different dimensions of the construct. Entrepreneurship research has focused broadly on the development of smaller firms (Acs, 1992; Aronson, 1991) and more narrowly on the founding and success of firms that are introducing new products to the marketplace (Schumpeter, 1934). In both cases it is argued that these firms are the ones that provide the impetus for economic growth (Reynolds, 1997; Rondinelli & Kasarda, 1992).

A basic premise of much international management research has been that firms are embedded in country-specific institutional arrangements. For instance, unique institutional structures guide firms' strategic activities and help determine the nature and amount of innovation that take place within a country's borders (Nelson, 1993). Bartholomew (1997) articulated how national institutional patterns, such as access to research and educational institutions, access to sources of financing, and availability of pools of educated labor, help determine the manner in which an innovation emerges within a country. Differences in national institutions may also bring about different levels of entrepreneurial activity across countries. Casson (1990) argued that an infrastructure that enhances cooperation between a country's entrepreneurs will facilitate problem-solving activities and increase entrepreneurial activity. Others have studied how patent

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rights (Nelson, 1982), societal norms, and shared cognitive schemas (Busenitz & Lau, 1996) affect the level of entrepreneurship within an economy.

Despite this literature, which points to a diverse set of country-level differences to explain international differences in entrepreneurship, most cross-national empirical research has focused narrowly on the role of culture. Many of these studies have linked Hofstede's (1980) dimensions of culture to countries' entrepreneurial tendencies, with particular interest in the dimension of individualism. However, Acs (1992) concluded that there is a limited correlation between countries' levels of individualism and the strength of small companies, and subsequent research has continued to find inconsistent results (European Network for SME Research, 1996; Mueller & Thomas, 1997). These findings suggest that Hofstede's measures of culture, alone, do not adequately describe cross-country differences in entrepreneurial activity. We believe that cross-national differences in entrepreneurship are best explained by a broader set of institutions that guide and constrain private business behavior in every national economy.

Kostova (1997) introduced the concept of a three-dimensional *country institutional profile* to explain how a country's government policies (constituting a regulatory dimension), widely shared social knowledge (a cognitive dimension), and value systems (a normative dimension) affect domestic business activity. She emphasized that countries' institutional profiles lose meaning when they are generalized across a broad set of issues. Institutional profiles must, instead, be measured with regard to specific domains. Research in cognitive psychology has shown that cognitive and normative categories are domain-specific (Abelson & Black, 1986; Walsh, 1995). Countries' regulations and government policies also tend to affect specific domains differently.

We used Kostova's (1997) approach as our foundation for exploring how and why levels of entrepreneurship vary by country. In this study, we developed and validated a measure of a country institutional profile for the domain of entrepreneurship. Following Kostova's lead, we articulated and measured regulatory, cognitive, and normative dimensions of countries' institutional profiles.

COUNTRY INSTITUTIONAL PROFILES FOR ENTREPRENEURSHIP

By providing a three-dimensional institutional profile, we clarify the distinct roles that the regulatory, cognitive, and normative dimensions play in determining levels of entrepreneurship across

countries. Some previous research has muddled the distinctions between these dimensions by categorizing elements of all three as *culture*. Although there undoubtedly are connections among the three dimensions and relationships between elements of each dimension and the construct of culture, we follow Kostova (1997) and Scott (1995) in viewing the regulatory, cognitive, and normative dimensions as conceptually and empirically distinct.

The *regulatory dimension* of the institutional profile consists of laws, regulations, and government policies that provide support for new businesses, reduce the risks for individuals starting a new company, and facilitate entrepreneurs' efforts to acquire resources. Firms can leverage resources that are available through government-sponsored programs and enjoy privileges stemming from government policies that favor entrepreneurs (Rondinelli & Kasarda, 1992). For instance, the U.S. government provides advice and assistance for those starting new businesses and offers grants for new technology development in small enterprises. Several European governments provide small companies with financial assistance for exporting and trade development (Reynolds, 1997). Other government policies encourage individuals to make their own investments by allowing new firms to be legally incorporated with ease, or by protecting investors from the full extent of investment risk.

The *cognitive dimension* consists of the knowledge and skills possessed by the people in a country pertaining to establishing and operating a new business. Within countries, particular issues and knowledge sets become institutionalized, and certain information becomes a part of a shared social knowledge (Busenitz & Barney, 1997; Lau & Woodman, 1995). For instance, in some countries, knowledge about how to found a new business may be widely dispersed (Busenitz & Lau, 1996). In other countries, individuals may lack the knowledge necessary to understand even the most basic steps required to start and manage a new or small business.

The *normative dimension* measures the degree to which a country's residents admire entrepreneurial activity and value creative and innovative thinking. International entrepreneurship researchers have argued that a country's culture, values, beliefs, and norms affect the entrepreneurial orientation of its residents (Busenitz & Lau, 1996; Knight, 1997; Tieszen, 1997).

Although most popular measures of countries' normative environment depend on Hofstede's (1980) dimensions of culture, we concur with Kostova (1997) that it is imperative to develop a measure that is specific to the domain of entrepreneur-

ship. For example, although a country's score on a measure of individualism may hold predictive power in countries where most entrepreneurship comes in the form of new high-technology start-ups, it may be inappropriate in places where most entrepreneurship consists of small, family-owned businesses. We believe that members of societies hold common values about entrepreneurial activities themselves. In some value systems, entrepreneurs are admired for their creativity and initiative (Casson, 1990), but in others they are not.

METHODS

Scale Development

To begin operationally defining the country institutional profile for entrepreneurship, we generated a large pool of items as potential measures for each of the three dimensions (DeVellis, 1991). For the regulatory dimension, ten items were generated that focused on government policies supporting new businesses, government regulations that affected new businesses, and indirect government support for entrepreneurs that came through other public institutions, such as universities. An extremely wide range of governmental institutions affect a country's business environment. However, many of these institutions affect various sectors of the economy differently. For instance, government support for high-technology research and government-sponsored industry consortia primarily benefit entrepreneurial firms within specific sectors. Furthermore, countries vary on the degree to which governments target this assistance toward specific firms and industries (Murtha & Lenway, 1994). The intent of the regulatory dimension here was to measure those institutional arrangements that are likely to affect the domain of entrepreneurship as a whole.

The cognitive items, numbering 11 in all, focused on the public's awareness of successful entrepreneurs and the public's knowledge about how to finance, structure, and manage new businesses. Finally, the normative questions, of which there were 15, focused on society's admiration for individuals who start their own businesses, the belief that innovative and creative thinking is good, and the belief that starting a business is an acceptable and respected career path.

We pretested the survey instrument with 257 U.S. undergraduate students from a large state university in the Southwest. Kaiser's eigenvalues-greater-than-one criterion and the scree plot indicated three to four factors. Both solutions were analyzed, and a three-factor solution obtained with

varimax rotation¹ was subsequently retained and used to identify items that did not load within their intended scale or discriminate clearly (DeVellis, 1991). Problematic items were analyzed one-by-one, and a decision was made to eliminate or rewrite each item. A second pretest with shorter scales was administered to a new sample of 108 undergraduate business students from the same university. Again, both the eigenvalues and the scree plot indicated three to four factors. The three-factor solution using a varimax rotation provided meaningful factors that reflected regulatory, cognitive, and normative dimensions. After we dropped items with loadings below .40 (DeVellis, 1991), Cronbach's alphas for the dimensions were .83, .72, and .69, respectively. The final survey instrument consisted of 17 items: 7 regulatory, 6 cognitive, and 4 normative.

We chose to validate the instrument with university students because using either entrepreneurs or corporate managers would have significantly biased our results, owing to their obvious career preferences. In contrast, business students have not yet chosen definitive career paths, represent a broad cross section of society, and have a deeper knowledge of relevant business issues than the general public. Accordingly, the survey was administered to business students in six countries: Germany, Italy, Norway, Spain, Sweden, and the United States. We selected these countries to ensure variance of both entrepreneurial activity and expected diversity within the three dimensions measured. We translated the survey to German, Italian, and Spanish using back-translation as recommended by Brislin (1980). We collected a total of 636 usable surveys in the six countries.² Most respondents (97%) were between 20 and 35 years old. Slightly more than half of the sample's members were men (53%).

We used structural equation modeling to perform a confirmatory factor analysis (CFA) on the country institutional profile measure. Since we are in the early stages of developing this construct, we considered it appropriate to perform a procedure of cross-validation that would allow us to test the fit of the full model against that of an alternative model. According to Bagozzi and Yi (1988), cross-validation procedures have a long history in both econometric and psychometric studies and have been adapted for use in structural equation modeling.

¹ A similar analysis was done using an oblique rotation, and results were largely the same.

² The breakdown by country was 112 surveys from Spain, 59 from Norway, 107 from Sweden, 92 from Germany, 100 from Italy, and 166 from the United States.

TABLE 1
Means, Standard Deviations, and Correlations for All Countries^a

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12
1. Cognitive, 1	3.95	1.31												
2. Cognitive, 2	4.02	1.29	.28											
3. Cognitive, 3	3.82	1.15	.29	.52										
4. Cognitive, 4	3.98	1.33	.28	.29	.41									
5. Normative, 1	4.96	1.47	.17	.19	.08	.15								
6. Normative, 2	5.13	1.48	.13	.13	.17	.25	.39							
7. Normative, 3	5.00	1.47	.10	.13	.08	.15	.49	.49						
8. Normative, 4	4.84	1.45	.12	.10	.07	.12	.51	.47	.70					
9. Regulatory, 1	4.18	1.63	.23	.08	.13	.11	.19	.12	.17	.15				
10. Regulatory, 2	3.81	1.37	.11	.18	.18	.15	.22	.14	.15	.28	.32			
11. Regulatory, 3	4.34	1.39	.09	.10	.13	.10	.14	.05	.13	.12	.57	.25		
12. Regulatory, 4	4.23	1.28	.07	.10	.14	.13	.18	.09	.16	.19	.45	.38	.54	
13. Regulatory, 5	3.46	1.41	.13	.08	.12	.10	.15	.16	.14	.13	.40	.22	.40	.36

^a *n* = 636; all correlations greater than .08 are statistically significant at *p* < .05. Correlation tables for each country are available from the authors.

ing (Cudeck & Browne, 1983). We began by randomly splitting the total sample of 636 observations into halves. Half of the data sample, called a calibration sample, was used to identify items that did not load strongly³ on the appropriate factor. The resulting model consisted of four cognitive items, four normative items, and five regulatory items.

We then followed the double cross-validation procedure (Bagozzi & Yi, 1988; Bentler, 1980). We first ran CFA on the calibration sample using both the full model (17 items) and the reduced model (13 items). We then tested the predictive effectiveness of the parameters calculated from the calibration sample on the remaining half of the data, called the validation sample. The reduced model showed a better fit to the validation sample (cross-validation fit index [CVFI] = 0.74), indicating that the reduced model was preferable to the full one (CVFI = 1.49). To verify these results, we performed a second cross-validation in which the second half of the data was used as the calibration sample and the first half was used as the validation sample. This analysis also showed that the reduced model (CVFI = 0.65) was better than the full model (CVFI = 1.62). Furthermore, even when the number of parameters in each model was taken into account, the reduced model continued to have a stronger fit (the first CVFI divided by number of parameters was .010 on the full model versus .008 on the reduced model; the second CVFI divided by the number of parameters was .011 on the full model versus .007 on the reduced model). Conducting the double cross-validation procedure greatly

reduced the likelihood of a respecification that capitalizes on chance (Bagozzi & Yi, 1988).

Scale Validation

The shortened scale, with four cognitive, four normative, and five regulatory items was retained, and a CFA was performed on the 636 responses from all six countries. Table 1 shows the means, standard deviations, and correlations between items for the six countries. In Table 2, the test for the difference in chi-square shows the superiority of a three-factor model over plausible two- and one-factor models. A one-factor model is plausible if the three subscales really reflect "culture" as an overarching construct. A two-factor model is plausible if the cognitive and normative dimensions are closely related, through values and norms both affecting mental schemas.

However, the three-factor model showed the best fit, meeting or exceeding the .90 threshold on a wide range of goodness-of-fit measures (GFI = .95, AGFI = .93, NFI = .91, NNFI = .92, CFI = .94, IFI = .94). No problems were found in residuals or standard errors. The distribution of residuals was symmetrically centered around zero. The average off-diagonal value was .04 and the largest off-diagonal value was .18, which reflected a good fit to the data. All parameter estimates were significant, with appropriate standard errors. Table 2 summarizes results from the CFA. Cronbach's alphas on the resulting scales were .76 for regulatory, .68 for cognitive, .81 for normative, and .78 for the overall country institutional profile.

One objective of this study was to test the equivalency of factor structures across the six countries.

³ A conservative cutoff of .55 was used.

FIGURE 1
Confirmatory Factor Analysis Results

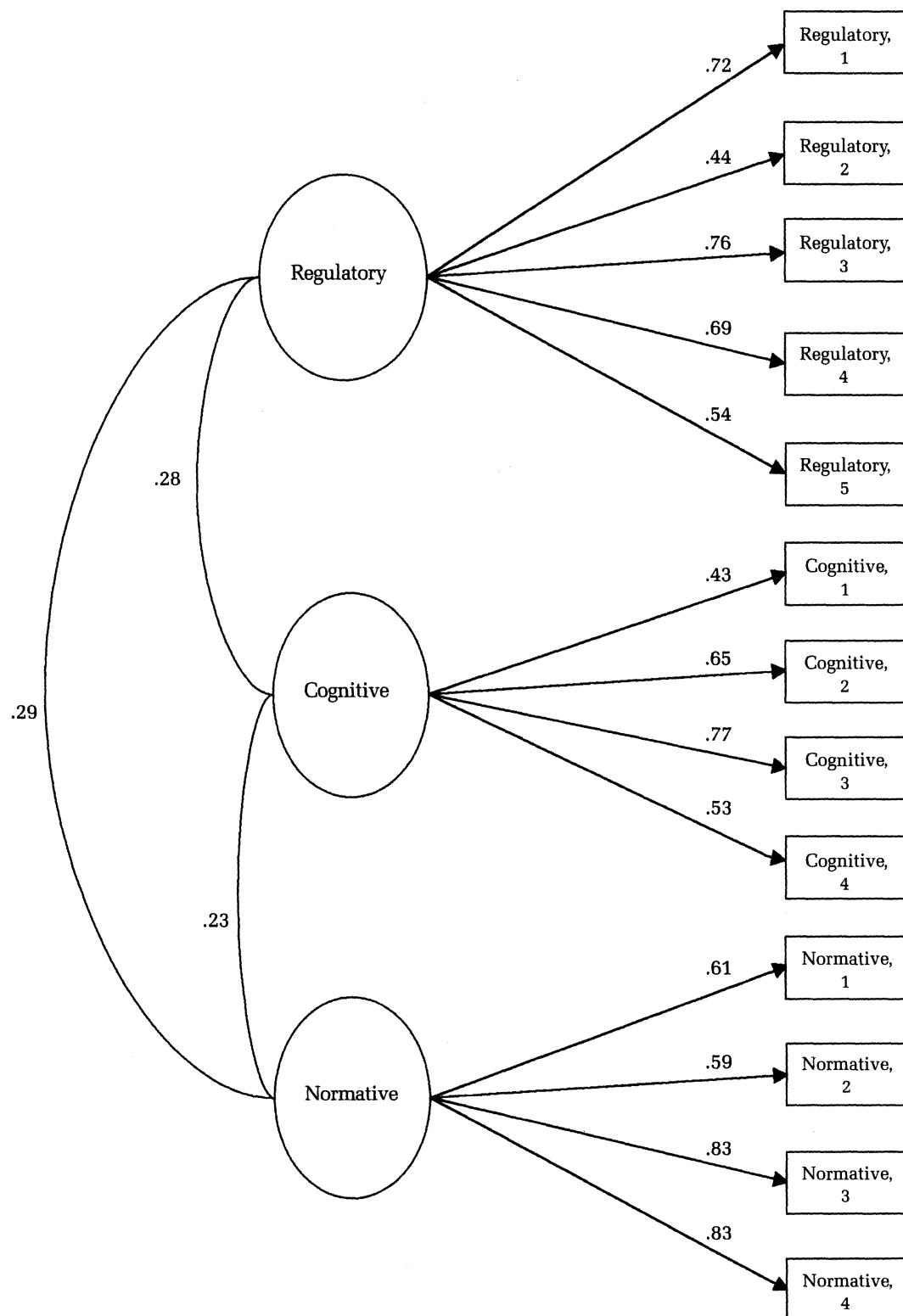


TABLE 2
Summary of Confirmatory Factor Analyses^a

Model	χ^2 (df)	$\Delta\chi^2$ (Δ df)	CFI	NFI	NNFI	RMSR	RMSEA	GFI	AGFI	IFI
Null	2,295.60 (78)**									
One-factor	1,171.31 (65)**	1,124.29 (13)**	.50	.49	.40	.14	.16	.73	.62	.50
Two-factor	576.25 (64)**	595.06 (1)**	.77	.75	.72	.10	.11	.86	.80	.77
Three-factor	206.59 (62)**	396.66 (2)**	.94	.91	.92	.05	.06	.95	.93	.94

^a The chi-square test is a measure of the overall fit of a model to the data; an acceptable model is one in which the analysts fail to reject the null hypothesis. Note that when a sample is large, it is close to impossible to fail to reject the null hypothesis. The comparative fit index (CFI) examines the portion of total variance accounted for by a model and overcomes difficulties associated with sample size; .90 is considered an acceptable level. The normed fit index (NFI), nonnormed fit index (NNFI), and incremental fit index (IFI) are incremental fit indexes that measure the proportionate improvement in fit by comparing the model with a more restricted baseline model; .90 is considered an acceptable level. The root-mean-square residual (RMSR) is a standardized summary statistic for residuals; .05 is considered an acceptable level. The root-mean-square error of approximation (RMSEA) is a test of the null hypothesis of close fit; .05 indicates a very good fit, .05 to .08 indicates a fair to mediocre fit. Goodness of fit (GFI) is a global indication of how well a model fits the data; .90 is considered an acceptable level. The adjusted goodness-of-fit index (AGFI) is adjusted for model parsimony; .90 is considered an acceptable level.

** $p < .01$

TABLE 3
Means, Standard Deviations, Rankings, and Results of Analyses of Variance^a

Country	Institutional Profile				Regulatory				Cognitive				Normative	
	Rank	Mean	s.d.	Rank	Mean	s.d.	Rank	Mean	s.d.	Rank	Mean	s.d.		
United States	1	4.75 ^{G, I, N, Sp, Sw}	0.61	2	4.32 ^{G, I, Sp, Sw}	0.87	1	4.18 ^{G, I, Sw}	0.92	1	5.86 ^{G, I, Sp, N, Sw}	0.94		
Sweden	2	4.40 ^{G, I, Sp, US}	0.65	1	4.62 ^{G, I, N, Sp, US}	0.75	4	3.89 ^{US}	0.80	4	4.67 ^{US}	1.02		
Norway	3	4.24 ^{G, I, Sp, US}	0.64	3	4.26 ^{G, I, Sp, Sw}	0.77	2	3.96	0.97	6	4.47 ^{US}	1.07		
Spain	4	4.04 ^{N, Sw, US}	0.64	4	3.61 ^{N, Sw, US}	0.93	3	3.95	0.80	5	4.66 ^{US}	1.03		
Italy	5	3.98 ^{N, Sw, US}	0.78	5	3.55 ^{N, Sw, US}	1.18	5	3.76 ^{US}	0.95	2	4.74 ^{US}	1.14		
Germany	5	3.98 ^{N, Sw, US}	0.68	6	3.53 ^{N, Sw, US}	0.96	5	3.76 ^{US}	0.90	2	4.74 ^{US}	1.14		
F ^b		28.75***			28.00***			4.17***			32.56***			

^a Superscripts indicate differences between country means significant at $p < .05$. I = Italy, G = Germany, N = Norway, Sp = Spain, Sw = Sweden, US = United States.

^b For F-tests, $df = 5, 630$.

*** $p < .001$

A nonconstrained multisample model provided evidence that every item loaded on the appropriate factor in each country (CFI = .90), supporting the idea that the instrument is appropriate for use in countries outside the United States. To assess a greater degree of model equivalency, we performed a multisample analysis, constraining factor loadings to be the same across all six countries. The CFI for the fully constrained multisample analysis was marginally good at .87. A chi-square difference test, however, showed that the unconstrained model was a better fit ($\Delta\chi^2 = 127.14$, 65 df). The superiority of the unconstrained model led us to reject the hypothesis that all factor loadings were identical across all six countries. Interestingly, factor loadings were not significantly different within culturally homogeneous regions such as the Latin-European culture of Italy and Spain ($\Delta\chi^2 = 18.70$, 13 df) and the Scandinavian culture of Norway and Sweden ($\Delta\chi^2 = 10.05$, 13 df). Because all items

loaded on the appropriate factor in each of the six countries, we compared country rankings using the means of the items within each factor.⁴

External Validity

As is shown in Table 3, analyses of variance (ANOVAs) indicated country differences on scores for the overall profile as well as for the regulatory, cognitive, and normative subscales. Our sample size of six countries did not afford much statistical power. Even so, rank-order correlations provided evidence of convergent and predictive validity.

⁴ Although this study compared the means of each factor across six countries, variations from the reported means may exist owing to different factor loadings by country.

Convergent validity. We assessed the convergent validity of each of the subscales using archival data on constructs that logically should be related to each dimension of our institutional profile. We compared our regulatory dimension to a survey question contained in a publication of the International Institute for Management Development (IMD, 1994) that asked chief executives and economic leaders to rate their country's fiscal policy on a ten-point scale ranging from "discourages" to "encourages" entrepreneurial activity. A Spearman rank-order correlation between our regulatory dimension and this external measure was positive ($\rho = .77, p < .07$).

We compared our cognitive dimension to two external sources. First, in countries in which a large percentage of residents pursue postsecondary education, knowledge about starting new businesses may be more prevalent. Second, entrepreneurs often start businesses in order to commercialize new products and innovations. Therefore, we would expect a relationship between our cognitive dimension and the percentages of a country's residents who pursue higher education and who are trained as scientists. We found that our cognitive dimension was positively associated with the prevalence of both higher education and scientific training, using data from both the IMD (1994) and UNESCO (United Nations Educational, Scientific, and Cultural Organization, 1995) ($\rho = .99, p < .01$ and $\rho = .52, p < .29$, respectively).

We compared our normative dimension to Hofstede's (1980) ranking of countries based on the degree of individualism in their cultures. Previous research has linked individualism and an entrepreneurial orientation (Mueller & Thomas, 1997). Our normative dimension correlated with this external measure positively ($\rho = .64, p < .17$). In sum, these comparisons indicate respectable correspondence between our measures of the regulatory, cognitive, and normative dimensions and relevant variables from independent sources.

Predictive validity. It was noted earlier that entrepreneurship can be defined and measured in different ways. Therefore, we considered two distinct measures of each country's level of entrepreneurship. The first reflects the percentage of companies within the country's electronics and advanced manufacturing sectors⁵ that are small (0–19 employees) (European Commission, 1996).

⁵ We believe that firms in these sectors are the most innovative. Note that data were only available for the European countries.

The second reflects the percentage of the domestic companies on each country's stock exchange that were newly listed.⁶

Interestingly, our multiple dimensions of the institutional profile parallel the two different measures of entrepreneurship. Once again, owing to the very small sample size, the correlations only approach significance. Countries' rankings on the normative dimension relate to the ratio of small companies to total companies within their electronics and advanced manufacturing sectors ($\rho = .72, p < .17$). It appears that in countries where entrepreneurs are admired, people are more likely to attempt to start or manage entrepreneurial businesses. In contrast, the rankings of countries on the cognitive and regulatory dimensions relate to their rankings on the percentage of publicly traded companies that were newly listed ($\rho = .63, p < .18$ and $\rho = .81, p < .05$, respectively). It appears that it is the cognitive and regulatory environments that provide the skills and support necessary for firms to become successful enough to make initial public offerings. Hence, although the normative environment encourages people to become entrepreneurs, it takes a strong cognitive and regulatory environment for firms to obtain the resources and legitimacy necessary to obtain external investors.

DISCUSSION

In this study, we developed and empirically validated a survey instrument for measuring the institutional profile of entrepreneurship across six countries. The study makes three important contributions to the international entrepreneurship literature. First, although a country's culture may well affect its business systems, we concur with Kostova (1997) that the breadth of the concept of culture has led to overgeneralization in terms of both conceptual arguments and empirical results. A country institutional profile can serve as a viable alternative for exploring broad country differences. In this study, we developed such a measure for entrepreneurship and validated three distinct dimensions against external measures. This institutional approach moves beyond previous research to provide a more complete profile of country differences with respect to entrepreneurial activities.

Second, the study highlights the usefulness of understanding the distinctions among the dimensions of a country's institutional profile. Table 3 shows that countries' scores are rarely consistent across all three

⁶ We averaged the 1996 and 1997 percentages to take into account the cyclical nature of new firm listings.

dimensions. For example, Italy occupies the lowest rank on the cognitive dimension and the second-lowest rank on the regulatory dimension yet scores second-highest on the normative dimension. In the future, policy makers could assess their own country's scores on each dimension and devise strategies for improving their domestic institutional environments for entrepreneurship.

Third, given that the three dimensions of the institutional profile appear to relate to different aspects of entrepreneurship across countries, the institutional profile provides the opportunity to evaluate the source of each country's strengths and weaknesses more precisely. The scales may help researchers understand why some countries tend to maintain an advantage in new business development within a particular industry (Storey, 1994) or with a specific organizational form. For example, small family businesses may enjoy a great deal of success in countries with a certain profile, but technology firms devising strategies for moving toward initial public offerings may succeed in countries with a different profile. An understanding of a country's institutional profile may help globally focused entrepreneurs start firms that have international missions from their inception (Oviatt & McDougall, 1994), by identifying obstacles they may need to overcome before they expand into new countries (Rondinelli & Kasarda, 1992). In future inquiry, researchers should probe whether country profiles motivate particular forms of cooperation (Casson, 1990), modes of entry, or types of organizational structures.

Our instrument was conceived as a broad measure of countries' institutional profiles. Nevertheless, future researchers might use single dimensions of our instrument to enrich more targeted studies of specific determinants of entrepreneurship across countries. For example, scholars attempting to thoroughly understand countries' regulatory environments for entrepreneurship might couple the regulatory dimension of this instrument with other, more specific, regulatory measures, such as fiscal policies toward entrepreneurs, bankruptcy laws, and national policies toward innovation.

The modest fit obtained in the multisample analysis and the evidence for inequality among factor loadings across countries reflects the difficulty inherent in developing etic measures. Future research should clarify which scales (such as country institutional profiles) need to be generalizable across countries and what level of equivalency across samples is required to conclude that a scale is etic. In addition, future larger-scale studies might adjust the means comparisons on the basis of variations in the factor structure by country. Potential further development of the country profiles for en-

trepreneurship should be performed as future researchers apply the instrument to other countries.

Although this study focused on industrialized Western countries with relatively small differences on each of the three dimensions, we believe future research should apply the profile to other countries. The restricted range of variation here, although providing a conservative test, likely made it more difficult to expose interesting relationships between the three dimensions and other variables.

In sum, the scales developed in this study can improve both the empirical and theoretical rigor of international entrepreneurship research. The scales underlying our country institutional profile have good reliability, strong discriminant validity, adequate cross-cultural validity, and reasonable external validity. This institutional profile should provide a useful tool with which researchers can explore a variety of issues regarding cross-national differences in entrepreneurship.

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APPENDIX

Country Institutional Profiles

Respondents were given the following instructions: "Think of the country in which you live and tell us the extent to which you agree with the following statements" (1 = strongly disagree, 2 = disagree, 3 = disagree somewhat, 4 = neutral, 5 = agree somewhat, 6 = agree, and 7 = strongly agree). The name of the variable used in analyses is in parentheses after the appropriate item.

Regulatory Dimension

1. Government organizations in this country assist individuals with starting their own business. (regulatory, 1)
2. The government sets aside government contracts for new and small businesses. (regulatory, 2)
3. Local and national governments have special support available for individuals who want to start a new business. (regulatory, 3)
4. The government sponsors organizations that help new businesses develop. (regulatory, 4)
5. Even after failing in an earlier business, the government assists entrepreneurs in starting again. (regulatory, 5)

Cognitive Dimension

6. Individuals know how to legally protect a new business. (cognitive, 1)
7. Those who start new businesses know how to deal with much risk. (cognitive, 2)
8. Those who start new businesses know how to manage risk. (cognitive, 3)
9. Most people know where to find information about markets for their products. (cognitive, 4)

Normative Dimension

10. Turning new ideas into businesses is an admired career path in this country. (normative, 1)
11. In this country, innovative and creative thinking is viewed as the route to success. (normative, 2)
12. Entrepreneurs are admired in this country. (normative, 3)
13. People in this country tend to greatly admire those who start their own business. (normative, 4)

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