

Institutional Environments For Entrepreneurship In Emerging Economies: Brazil Vs. Mexico

Rangamohan V. Eunni

Abstract

In this study, we first empirically validated an instrument developed by Busenitz, Gomez and Spencer (2000) in the context of western industrialized countries for measuring country institutional profiles for the promotion of entrepreneurship to two leading emerging economies in Latin America: Brazil and Mexico. We then applied it to assess which national context is more favorable for entrepreneurship. We employed structural equations modeling and performed confirmatory factor analysis on the country institutional profile measure. Results revealed high reliability, internal consistency, and construct validity of the instrument. Further, we found significant differences in two of the three dimensions of the institutional profiles between these two emerging economies: Mexico ranks higher than Brazil both in regulatory and cognitive dimensions as well as in the overall institutional profile. This reflects their idiosyncratic cultural norms and values, traditions, and institutional heritage in promoting entrepreneurship. Implications for future research, managerial practice, and public policy are discussed.

Keywords: Institutional environments, Entrepreneurship, Emerging economies, Brazil, Mexico.

Introduction

Entrepreneurship or new venture creation is essential for the economic development of nations. This is especially relevant to emerging markets such as Brazil and Mexico beset with serious problems of unemployment and poverty. New venture creation contributes to economic growth (van Stel, Carree and Thurik, 2005), innovation (Baumol, 2005; Wong, Ho, and Autio, 2005; Acs and Armington, 2006; Schramm, 2006; Audretsch, 2007), enhanced productivity due to increased competition (Nickell, Nicolitsas and Dryden, 1997), and leveraging of knowledge spillover effects (Audretsch and Keilbach, 2004).

Rangamohan V. Eunni, Williamson College of Business Administration, Youngstown State University
Youngstown, OH 44555 (USA), E-mail: rveunni@ysu.edu

New venture creation also leads to the creation of new jobs and economic welfare (Wennekers and Thurik, 1999; Baumol, 2002). How to promote the growth of new ventures has therefore been a central issue with policy planners in emerging economies around the world. Small wonder this topic has evoked considerable interest among scholars of entrepreneurship in recent years

The rate and trajectory of entrepreneurship in emerging economies is significantly influenced by the institutional environment (Peng and Heath, 1996; Ahlstrom and Bruton, 2002; Smallbone and Welter, 2001, 2006). Although market reforms date back to the 1980s and early 1990s in the emerging economies of Latin America, no empirical studies exist to assess whether the institutional environments in these economies are favorable to entrepreneurship or not. In fact, there are no valid scales to comprehensively measure the institutional environments in emerging economies underscoring a need to develop good constructs and metrics for this purpose. Following a recent effort to do so in the context of the emerging economies in Eastern Europe (Manolova, Eunni and Gyoshev, 2008), this study will first validate an instrument proposed by Busenitz, Gomez, and Spencer (2000) in the context of western industrialized countries to two leading emerging economies in Latin America: Brazil and Mexico. It will then be applied to assess which national context is more favorable for entrepreneurship.

This paper is organized as follows: the next section contains a review of the literature on institutional theory vis-à-vis its influence on new firm creation and a comparative evaluation of the institutional environments for entrepreneurship in Brazil and Mexico. This discussion leads up to the research questions formulated for this study. Section 3 consists of a description of the methods employed for this study and the results from statistical tests. The confirmatory factor analysis revealed high reliability, internal consistency, and construct validity of Busenitz et al.'s instrument. The analysis of variance showed significant differences between the institutional profiles of Brazil and Mexico. Mexico emerged superior to Brazil both in regulatory and cognitive dimensions as well as in the overall institutional profile measure. The final section is devoted to a discussion of the results of this study and its implications for future research, managerial practice, and public policy.

Theoretical Background And Research Questions

The new institutionalism in organizational studies dates back to Meyer and Rowan (1977). This theory, with its origins in sociology, extended the role of social institutions to the domain of economic choices made by individuals and firms, and invested social institutions with the power of determinism. Skeptical about the rational-actor models of organizations, the protagonists stressed the circumscribing role of the cultural and institutional environment in shaping organizational reality and choice (Powell and DiMaggio, 1991). All the individual actors and organizations in and affecting the (competitive) environment, such as consumers, suppliers, regulatory agencies etc., constitute what is called the

organizational field, which is a recognized segment of institutional life. Whatever changes may take place in the goals or practices of its constituents, including entry of new players, organizational actors construct an institutionally determined value space within which they exercise choice. This they do either to earn social approbation through compliance to societal norms or to avoid social sanctions for deviance. Viewed in this perspective, organizational fields increasingly come to be characterized by a measure of homogeneity. In contrast to the population ecologists (Hannan and Freeman, 1977) who predict competitive isomorphism due to environmental determinism, Scott and Meyer (1991) postulate institutional isomorphism. The mechanisms through which this takes place can be *coercive* (regulatory sources), *mimetic* (due to uncertainty encouraging imitation) or *normative* (uniformity through professionalization) (Ibid. 1991 p. 67).

Integrating the streams of thought of the neo-institutional school with those of neoclassical economics, North (1990) proposed that the institutional framework of a society, which he defined as comprising “the fundamental political, social and legal ground rules, which establish the basis for production and distribution” limits the scope of strategic choices available to individuals and organizations. Scott (1995) offered a more refined categorization of these formal and informal institutions that impact businesses into *regulatory*, *normative*, and *cognitive* categories. *Regulatory* institutions are formally codified, enacted and enforced system of laws in a community, society or nation. *Normative* institutions refer to commercial standards and conventions such as those established by professional and trade associations. *Cognitive* institutions refer to the culture-specific beliefs about socially appropriate behavior, which are acquired through the process of socialization by living or growing up in a community or society. Notwithstanding some quibbles about its accuracy (Hirsch and Lounsbury, 1997), this three-fold classification has gained wide currency in organizational research (Kostova, 1997; Ahlstrom and Bruton, 2002; Parkhe, 2003; Bruton, Fried, and Manigard, 2005).

In order to survive and grow newly created firms learn to adapt themselves to the external environment, which according to the neo-institutionalists is dominated by the formal and informal institutions in society. The institutional environment circumscribes the range of choices available to businesses in general, newly formed firms in particular. The rate of new venture formation and growth is thus directly influenced by the institutional environment (Hwang and Powell, 2005; Gnyawali and Fogel, 1994; Aldrich, 1990). Further, in order to overcome the liability of newness (Stinchcombe, 1965) and the liability of smallness (Aldrich and Auster, 1986) and thereby survive, entrepreneurial firms need to gain legitimacy by conducting themselves in appropriate manners which are prescribed and sanctioned by the institutional environment (Freeman, Carroll, and Hannan, 1983; Suchman, 1995). Such conformity effectively limits the range of strategic options available to new firms (Roy, 1997; Ahlstrom and Bruton, 2002). In other words, the institutional environment of a society plays a powerful role in creating and even destroying entrepreneurship in a country (Aldrich and Wiedenmayer, 1993). Based on this conceptual framework and the further work of Kostova (1997), Busenitz at al., (2000) offered a three-dimensional metric to assess the conduciveness of a country’s institutional profile to entrepreneurship.

Institutional Environments in Brazil and Mexico: An Evaluation

Brazil and Mexico are among the largest countries in Latin America and share a similar economic profile on a variety of parameters. A comparative overview of their economies is presented below:

TABLE 1
Economic Profiles: Brazil Vs Mexico

Criterion	Brazil	Mexico
Population	196 million	110 million
GDP (Purchasing Power Parity)	\$1.836 trillion	\$1.346 trillion
GDP per capita	\$9,700	\$12,800
GDP Real Growth Rate	5.4%	3.3%
Rate of inflation (Consumer Prices)	3.6%	4%
Labor force	99.47 million	44.71 million
Population below poverty line	31%	40%

Source: <http://globaledge.msu.edu>. The figures variously refer to 2007 and 2008.

Brazil introduced an ambitious economic stabilization program in 1994 called *Plano Real* which was highly successful in containing runaway inflation of the earlier period. The government also undertook a massive privatization program designed to attract foreign capital and promote domestic investment. In 2003, the government launched a major economic reform initiative that introduced far reaching changes in the fiscal regime. In the same year 1994, Mexico signed the North American Free Trade Agreement (NAFTA), which had created a free trade zone for Mexico, Canada and the United States that was aimed at rejuvenating all the three economies. Despite these impressive strides, the regulatory environment for entrepreneurial venturing is indeed very harsh in both the economies although Mexico appears to be somewhat better in some respects.

Regulatory Environment

The table below shows the number of steps and the amount of time needed to start a business, and the 2006 World Bank ranking of the two economies among 175 countries on a range of criteria relevant to managing a new business.

TABLE 2
Regulatory Environment for Entrepreneurship: Brazil Vs Mexico

Criterion	Brazil	Mexico
------------------	---------------	---------------

# of Procedures for starting a business	17	8
# of days for starting a business	152	27
Employing Workers	99*	108*
Registering Property	124*	79*
Registering Property	120*	87*
Closing a Business	135*	25*

*2006 World Bank rank out of 175 countries

Source: <http://globaledge.msu.edu> – country memo

The Index of Economic Freedom compiled every year by the Heritage Foundation, considers a range of parameters such as trade barriers, corruption, government expenditures, property rights, and tax rates to generate an overall ranking of economic freedom. The higher the rank of a country the lower is the number of restrictions and constraints on businesses. Mexico was ranked 44 while Brazil was placed at 101 out of a total of 155 countries ranked in 2008.

The Forbes Tax Misery Index released every year by the leading financial journal *Forbes*, captures the net effect of corporate income, personal income and wealth taxes plus employer social security, employee social security and VAT/sales taxes at the highest marginal rate in each country. The higher a country's rank, the harsher taxes are the taxes imposed. While Mexico was ranked 25th and Brazil was placed 13th among 61 countries ranked in 2008.

The wage rates in both Brazil and Mexico are extremely low. The International Labor Organization (ILO; Berg, Ernst, and Auer, 2005) reported a minimum wage rate of 82 cents (US) per hour for Brazil and 56 cents (US) per hour for Mexico. These rates apply to those employed in the formal economy. However, the informal "gray" economy represents a significant part of the economy in both the countries. In both the countries, legally established businesses are forced to compete with informal businesses that do not register themselves with the regulatory authorities, and as a result neither pay taxes nor comply with labor laws. Laxity in enforcement facilitates such unregistered businesses to sell counterfeit and poor-quality goods at low prices undercutting the competitiveness of lawful firms. In 2002, the informal economy in Mexico employed 46% of the workforce (News, 2002). A 2003 study by the ILO reported that 44.6% of the total jobs in Brazil are informal, of which 14.3% are informal micro and small enterprises while for Mexico the corresponding percentages are 41.8% and 17.9% respectively.

Normative Environment

Unlike industrialized countries such as the US and some emerging markets such as India, wherein there are institutionalized rules for the maintenance of financial records by businesses, record keeping in Brazil is not in accordance with internationally accepted accounting standards. The financial records of small businesses are typically neither accurate nor do they conform to any normative standards (professional and commercial conventions). Industry and trade associations in Brazil tend to serve as lobbying groups for their constituents to secure tax and such other concessions from the government rather than play an effective role in enforcing compliance to professional practices. Moreover, the unofficial “gray” market in Brazil referred to earlier, estimated to account for almost 50% of the economy, discourages adoption of professional standards in financial record maintenance by law-abiding taxpayers (Moffett and Samor, 2005; Capp, Eistrodt and Jones, 2005). Lack of peer pressure for transparency, encourages businesses to remain small and below the radar so as to benefit from the institutional infirmities. Mexico shares with Brazil the institutional maladies arising from the existence of a significant “gray” market with additional complications arising from the association of criminal activities such as drug trading with the informal sector.

Brazil has one of the best banking systems in the world. With wide national coverage and technological sophistication, Brazilian banking system offers diversified financial products and services, which include traditional banking services as well as insurance, stock, bond and future trades, retirement plans, currency trading etc (www.deltatranslator.com/bancos). In contrast, the banking system in Mexico is generally weak and undercapitalized with high interest rates with only a third of the businesses having access to bank financing. The informal sector does not of course access banking (Ueltschy and Castillo, 2005).

In a study conducted by the Inter-American Development Bank (2002), it was reported that 85% of the Mexican entrepreneurs surveyed reported independence as the main motivation, in contrast to 40% for Brazil. On the other hand, Brazilians were more motivated to put their knowledge into practice (82% of the total firms) as compared to their Mexican counterparts (68% of the total firms). As regards, entrepreneurial competencies learned at school, it was found that only 20% of all entrepreneurs surveyed in Latin America who went to college referred to its influence in their decision to start a business. Mexican universities appear to provide a more broad based entrepreneurial training in their education.

Both Brazil and Mexico have a national system of business incubators, wherein high tech starts-ups find shelter. In Brazil 20% of the new ventures incubating are considered high tech (PACTI, 2005) as against 10.3% in Mexico (CONACYT, 2005). Brazil has a longer history of science and technology, and in recent years, the governments accorded high priority to scientific and technological development in the country. As a result, many small ventures especially in the biotechnology sector were successfully established. In Mexico, funds to promote innovation began operating in several sectors of applied research such as health, communications, environment, housing, agriculture and economic development (CONACYT, 2005). In particular small firms established a foothold in high-tech sectors such as information technology and communications.

Cognitive Environment

Apparently, there are cognitive barriers to entrepreneurial ambitions in Brazilian society. While over 70% of the population in Brazil is Roman Catholic and the religious practices in Brazil tend to be syncretic, rooted in centuries-old Portuguese traditions and abound in popular festivities influenced by African and native Brazilian folklore. The hedonistic Brazilian approach to personal life is an important dimension of its *cognitive* institutional environment that inevitably limits entrepreneurial ambition and new venture formation.

As for role models, the 2002 IDB survey cited above reported that about 33.5% of the Mexican entrepreneurs were influenced by their parents or close relatives to go into business venturing while the corresponding figure for Brazil was a mere 7.5%. This finding implies that unlike in Brazil the family plays a more significant role in motivating Mexicans to become entrepreneurs. than in the Brazilian case. Apparently, the Mexicans tend to be more inspired by their close family circle while the Brazilians tend to be affected by their social and professional circles.

The Research Questions

The institutional environments of the two leading emerging economies in Latin America are apparently very different from those of the developed market economies such as the US, with well established regulatory institutions, a tradition of management in a market-based competition, and social acceptance of entrepreneurial venturing. Before one could apply the theories and metrics developed for the developed Western economies to the institutional context of the Latin American economies, it is necessary to verify if they are universal rather than context-specific. Following from this logic is the first research question:

Research Question 1: Is the instrument developed by Busenitz et al. (2000) valid for emerging economies in Latin America?

The second research question deals with the variance in the institutional environments of the two Latin American economies. The cross-national differences described in the previous section might be the result of their respective historical experiences, institutional heritage, norms, or cultural values (Hohmann, Kautonen, Lageman, and Welter, 2002), which in turn might have lead to the emergence of different institutional milieus and entrepreneurial behaviors. Given the fascinating mosaic of similarities and differences between the Latin American neighbors, it would interesting to explore how the institutional environment and its three underlying dimensions impact new venture creation in the two economies. Hence, the following research question was formulated:

Research Question 2: Given their institutional profiles, which of the two economies is more favorable to entrepreneurship –Brazil or Mexico?

Methodology

Following the classification proposed by Scott (1995), Busenitz et al. (2000) designed a survey instrument to measure a country's institutional profile, wherein they had adopted somewhat more restrictive definitions than suggested by theory. Thus, the *cognitive dimension* is defined as "the knowledge and skills possessed by the people in a country pertaining to establishing and operating a new business" whereas the *normative dimension* measures "the degree to which a country's residents admire entrepreneurial activity and value creative and innovative thinking" (Busenitz et al., 2000: 995). Since one of the objectives of our study was to validate the Busenitz et al. (2000) instrument for the Latin American emerging economies, it was decided to follow the same definitions as the earlier study. Replicating their research design, we collected the data from 163 respondents in Brazil and Mexico in May-July 2006. The survey instrument, with 13 questions, was administered in Portuguese in Brazil and in Spanish in Mexico (see Appendix). Translation validity was established using the back-translation procedure prescribed by Brislin (1980). In our sample, 93.5% of the respondents were between 19 and 35 years of age and 53.4 percent were men. For comparison purposes, in Busenitz et al's (2000) sample 97 percent of the respondents were between 20 and 35 years of age, and 53 percent were men (see Table 3 for demographic profiles of the two country samples and Table 4 for descriptive statistics).

TABLE 3
Demographic Characteristics of the Country Samples

Description of the Line Item		Brazil	Mexico
Month and Year of survey		May 2006	July 2006
Sample size		81	82
Gender		39% Female 61% Male	61% Female 39% Male
Age		19 to 35 yrs: 92% Mean: 22 yrs	19 to 35 yrs: 96% Mean: 21 yrs
Education		Undergrad: 100% Graduate: 0%	Undergrad: 100% Graduate: 0%
Number of foreign students in sample and treatment		6 (Excluded from the analysis)	2 (Excluded from the analysis)

TABLE 4
Means, Standard Deviations, and Correlations for Brazil and Mexico

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
Regulatory 1	2.96	1.25												
Regulatory 2	3.33	1.29	.56											
Regulatory 3	3.48	1.42	.48	.49										
Regulatory 4	3.54	1.35	.26	.21	.47									
Regulatory 5	2.88	1.36	.33	.24	.32	.40								
Cognitive 1	3.05	1.59	.28	.21	.12	.08	.28							
Cognitive 2	3.09	1.37	.24	.21	.10	.11	.22	.63						
Cognitive 3	3.01	1.34	.21	.21	.14	.05	.21	.57	.87					
Cognitive 4	3.39	1.52	.17	.11	.05	.05	.18	.32	.51	.56				
Normative 1	4.28	1.55	-.07	-.02	.09	.02	-.01	.04	.14	.10	.20			
Normative 2	4.67	1.61	.03	.10	-.02	-.08	.06	.06	.10	.04	.13	.47		
Normative 3	4.79	1.57	.02	.10	-.01	.07	.08	.13	.11	.06	.07	.32	.63	
Normative 4	4.64	1.51	-.02	.02	-.01	.11	.05	.13	.17	.10	.05	.35	.55	.68

* n = 163; All correlations significant at $p < 0.05$ (2-tailed).

Results

Research Question 1 related to whether the Busenitz et al. (2000) survey instrument is valid for the emerging economies in Latin America. In order to test and establish its validity, we used structural equations modeling and performed confirmatory factor analysis. The results are captured in Figure 1 and the model fit statistics are summarized in Table 5. Reliability measured by Cronbach's alpha was .75 for regulatory, .84 for cognitive, .80 for normative dimensions, and .79 overall, which are all well above .70, the threshold evidencing a high degree of internal consistency (Nunnally, 1978). It is seen that our model compares favorably with Busenitz et al.'s (2000) model in terms of factor loadings, scale reliabilities and goodness of fit indicators (see Table 6). It is therefore inferred that the Busenitz et al.'s (2000) instrument designed for industrialized economies is valid for the emerging economies in Latin America too.

FIGURE 1 Confirmatory Factor Analysis Results

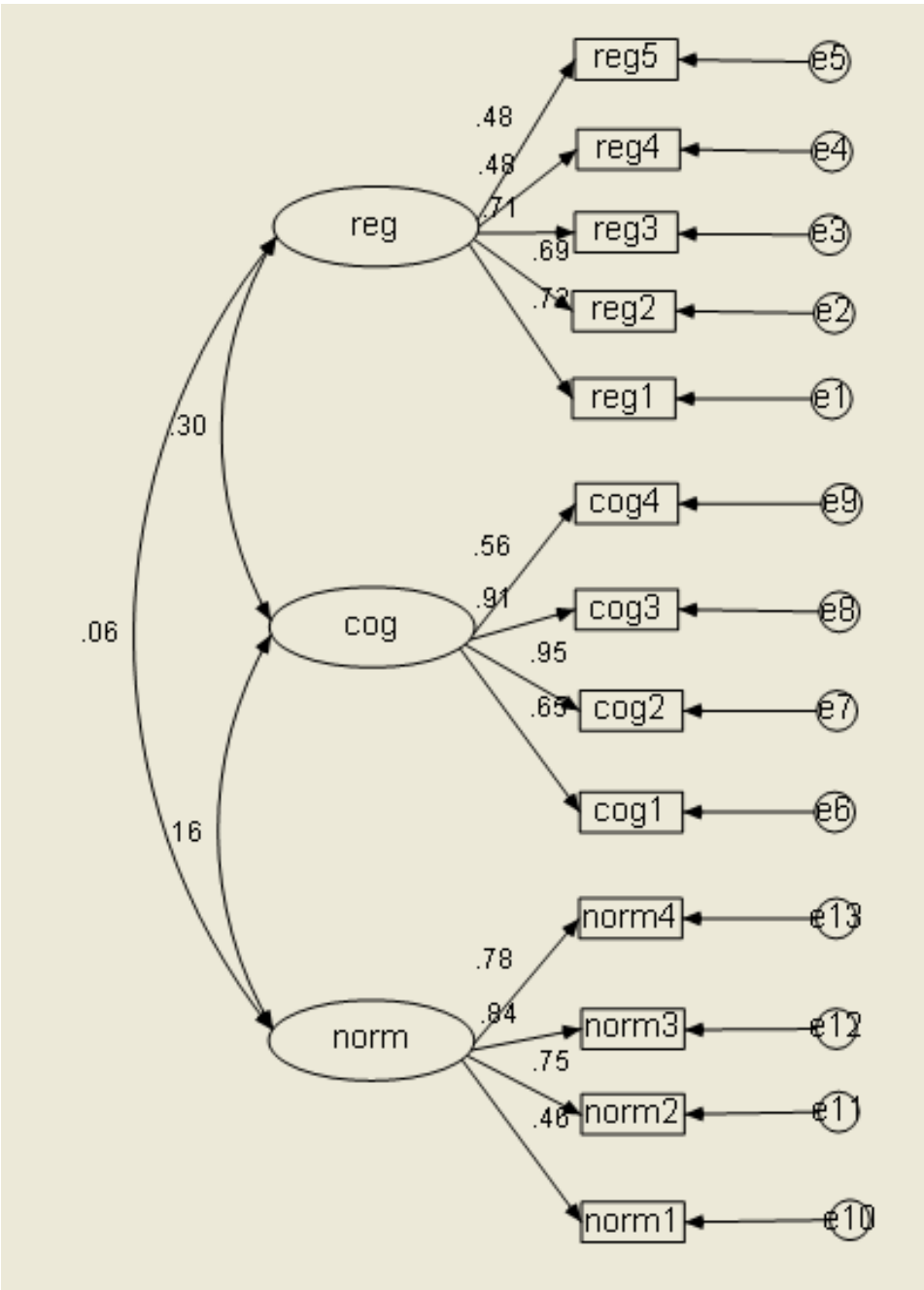


TABLE 5
Model Fit Summary

Model	NPAR	CMIN	DF	P	CMIN /DF	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2
Default	42	110.89	62	.00	1.79	.87	.81	.94	.91
Saturated	104	.00	0			1.00		1.00	
Independence	13	876.82	91	.00	9.64	.000	.000	.00	.00

Model	CFI	PRATIO	PNFI	PCFI	NCP	FMIN	RMSEA	PCLOSE	AIC
Default	.94	.68	.60	.64	48.89	.68	.07	.06	194.89
Saturated	1.00	.00	.00	.00	.00	.00			208.00
Independence	.00	1.00	.00	.00	785.82	5.41	.23	.00	902.82

Model	BCC	ECVI	MECVI	HOELTER .05	HOELTER .01
Default	202.83	1.20	1.25	119	133
Saturated	227.68	1.28	1.41	22	24
Independence	905.28	5.57	5.59		

TABLE 6
Model Statistics: Comparison with the Busenitz et al.'s (2000) Study

Indicator	Busenitz et al. (2000)	Our study
Number of factors extracted	3	3
<i>Scale reliabilities</i>		
Regulatory dimension	0.76	0.75
Cognitive dimension	0.68	0.84
Normative dimension	0.81	0.80
Overall	0.78	0.79
<i>Goodness of Fit Indicators</i>		
CFI	0.94	0.94
NFI	0.91	0.87
IFI	0.94	0.94
RMSEA	0.05	0.07

To answer *Research Question #2*, we performed ANOVA, which showed that there are significant differences between the two countries along two of the three individual dimensions: regulatory and cognitive, and the overall institutional profile measure (see Table 7). Mexico fared better than Brazil both in regulatory and cognitive dimensions as well as in the overall institutional profile. However, it is noteworthy that neither Mexico nor Brazil are favorable to new venture creation as evident from all means being below the neutral anchor 4 of the 7-point Likert-type scale.

TABLE 7
Means, Standard Deviations and Results of ANOVA

Country	Institutional Profile		Regulatory		Cognitive		Normative	
	Mean (Rank)	s.d.	Mean (Rank)	s.d.	Mean (Rank)	s.d.	Mean (Rank)	s.d.
Brazil	2.66 (2)	0.52	2.53 (2)	0.84	2.06 (2)	0.83	3.39 (1)	0.79
Mexico	2.98 (1)	0.62	3.18 (1)	0.761	2.58 (1)	1.01	3.18 (2)	1.02
F test	12.568**		27.059**		13.383**		1.816	

Note: **p < 0.01; *p < 0.1

External Validation of the Findings of This Study

As noted above, an incidental but important finding of our study is that the institutional environments in both Mexico as well as Brazil are unfavorable to entrepreneurship. This is vindicated by the rankings of these two countries in the World Economic Forum's Global Competitiveness Report, The report prepared every year by an independent international organization based in Geneva, Switzerland evaluates and ranks countries based on 12 indicators of their economic competitiveness data for which is obtained from a survey of over 11,000 business executives from around the world. The higher the rank of a country, the more competitive it is. In its 2008 report, Mexico was ranked 60th and Brazil 64th among 134 countries surveyed confirming our finding that neither Mexico nor Brazil is truly favorable for entrepreneurship.

But, the substantial conclusion from our study is that in terms of the conduciveness of the regulatory and cognitive dimensions of the institutional environment as well as in the overall institutional profile, Mexico fared better than Brazil. This finding is supported by the World Bank's "Ease of Doing Business" indicators (The World Bank, 2008). The Ease of Doing Business Ranking reported annually by The World Bank is based on a variety of measures of how easy or difficult it is to do business in a country. The higher the ranking of a country the more favorable is its environment for conducting business. In the 2008 rankings, Mexico placed at #56 among 181 nations ranked is decidedly easier to do business in than Brazil ranked at #125. Thus the findings of this study are consistent with independent external evaluations of the two countries' business environments using an entirely different set of criteria.

DISCUSSION

This study was carried out to achieve two objectives. First, it sought to validate a survey instrument developed by Busenitz et al.'s (2000) for measuring the favorability of the institutional environments of industrialized countries with market economies to the context of two leading emerging economies in Latin America: Brazil and Mexico. Second, employing the validated instrument, it sought to compare the institutional environments of these two countries along three dimensions with view to assess which of the two is more favorable to entrepreneurship. Based on a sample of 245 respondents in these two countries, it was found that the Busenitz et al's instrument is indeed valid not only for developed countries that it was designed for but also to measure the institutional profiles of the emerging economies in Latin America. Further, it was found that the institutional environment in Mexico is more favorable (less unfavorable, to be precise) to new venture creation than that in Brazil along two of the three dimensions – regulatory and cognitive and also in its overall institutional profile. These findings are in consonance with other indicators such as the World Bank's "Ease of Doing Business" rankings and the World Economic Forum's Global Competitiveness rankings.

Limitations and Implications

Notwithstanding its interesting and important findings, this study has its limitations that restrict its scope for generalization. First, the validation of the Busenitz et al.'s (2000) scale is based on samples from only two, albeit leading, emerging economies in Latin America. Clearly, the countries sampled should be increased before one could assert with confidence that the instrument is appropriate to measure the institutional environments in emerging economies in Latin America, leave alone the emerging economies elsewhere. Second, the definitions of the three dimensions of the institutional environment adopted from the earlier study as reflected in the survey instrument are restrictive and do not capture the full import of the underlying constructs defined by institutional theory. Third, our study and findings are based on data collected at a point in time although we do recognize that institutional environments evolve over time.

Despite these limitations, the findings of this study have implications for academics, practitioners and policy planners. For academics, the scale validated in this study allows greater confidence in its future use in the context of emerging economies at least in Latin America, if not beyond. Entrepreneurs and managers might as well recognize that business conditions are not entirely encouraging in Mexico and Brazil, and therefore they might brace themselves to face adversity better. Public policy planners in Mexico and Brazil have the work cut out for them. They need to find ways to enhance the conduciveness of all the three dimensions of the institutional environments to make new venture creation an attractive option to qualified individuals in both the countries.

REFERENCES

- Acs, Z.J. and Armington, C. 2006. *Entrepreneurship, Geography and American Economic Growth*, Cambridge: Cambridge University Press.
- Ahlstrom, D., and Bruton, G.D. 2002. An institutional perspective on the role of culture in shaping strategic actions by technology-focused entrepreneurial firms in China. *Entrepreneurship Theory and Practice*, 26(4): 53-70.
- Aldrich, H.E. 1990. Using an ecological perspective to study organizational founding rates. *Entrepreneurship Theory and Practice*, 14(3): 7-24.
- Aldrich, H.E., and Auster, A.R. 1986. Even dwarfs started small. In Staw, B.M., and Cummings, L.L. (Eds.), *Research in Organizational Behavior*, Vol. 8: 165-198, Greenwich, CT: JAI Press.
- Aldrich, H.E., and Wiedenmayer, G. 1993. From traits to rates: An ecological perspective on organizational foundings. In Katz, J.A. and Brockhaus (Eds.) *Advances in Entrepreneurship, Firm Emergence, and Growth*. Greenwich, CT: JAI Press: 145-195.
- Audretsch, D.B. and Keilbach, M. 2004. Entrepreneurship, capital and economic performance, *Regional Studies*, 38: 949-959.
- Audretsch, D.B. 2007. Entrepreneurship capital and economic growth. *Oxford Review of Economic Policy*, 23(1): 63-78.

- Baumol, W.J. 2002. ***The Free Market Innovation Machine: Analyzing the Growth Miracle of Capitalism***, Princeton: Princeton University Press.
- Baumol, W.J. 2005. ***The free market innovation machine: Analyzing the growth miracle of capitalism***, Princeton: Princeton University Press.
- Berg, J., Ernst, C., and Auer, P. (2005), ***Enfrentando el desafío del empleo: Argentina, Brasil y México en una economía globalizada***, Documento de trabajo, Oficina Internacional del Trabajo, OIT, Washington D.C.
- Bruton, G.D., Fried, V.H., and Manigart, S. 2005. Institutional influences on the worldwide expansion of venture capital. ***Entrepreneurship Theory and Practice***, 29: 737-760.
- Busenitz, L.W. Gomez, C., and Spencer, J.W. 2000. Country institutional profiles: Unlocking entrepreneurial phenomena. ***Academy of Management Journal***, 43: 994-1003.
- Capp, J., Eistrodt, H. and Jones, Jr. W.B. 2005. Reining in Brazil's informal economy. ***McKinsey Quarterly***, January.
- Consejo Nacional de Ciencia y Tecnología (2005), ***Reporte Anual, 2005***, CONACYT, México.
- Freeman, J., Carroll, G.R., and Hannan, M.T. 1983. The liability of newness: Age dependence in organizational death rates. ***American Sociological Review***, 48: 692-710.
- Gnyawali, D.R., and Fogel, D.S. 1994. Environments for entrepreneurship development: Key dimensions and research implications. ***Entrepreneurship Theory and Practice***, 18(4): 43-62.
- Hannan, M. T. and Freeman, J. 1977. "The Population Ecology of Organizations", ***American Journal of Sociology***, 82 (5): 929-964.
- Hirsch, P.M., & Lounsbury, M. 1997. Ending the family quarrel: Toward a reconciliation of "old" and "new" institutionalisms. ***American Behavioral Science***, 40: 406-418.
- Hohmann, H., Kautonen, T., Lageman, B., & Welter, F. 2002. ***Entrepreneurial strategies and trust: A position paper***. Working Papers of the Research Centre for East European Studies, Bremen: No 37 (June).
- Hwang, H., and Powell, W.W. 2005. Institutions and Entrepreneurship. In Acs, Z.J., and Audretsch, D.B. (Eds.), ***Handbook of entrepreneurship research***. Kluwer: 179-210.
- Inter-American Development Bank (2002), ***Entrepreneurship in Emerging Economies, The Creation and Development of New Firms in Latin America and East Asia, 2002 Summary Report***, Inter-American Development Bank, Washington, D.C.
- Kostova, T. 1997. Country institutional profiles: Concept and measurement. ***Academy of Management Best Paper Proceedings***: 180-189.
- Manolova, T.S., Eunni, R.V., and Gyoshev, B.S. 2008. Institutional environments for entrepreneurship: Evidence from emerging economies in Eastern Europe. ***Entrepreneurship Theory and Practice***, 32(1): 203-218.

- Meyer, J.W. and Rowan, B. 1977. Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83: 340-363.
- Moffett, M. and Samor, G. 2005. In Brazil, thicket of red tape spoils recipe for growth. *Wall Street Journal*, May 24, (<http://online.wsj.com>).
- Nickell, S., Nicolitsas, P. and Dryden, N. 1997. What makes firms perform well? *European Economic Review*, 41: 783-796.
- North, D. 1990. *Institutions, institutional change, and economic performance*. New York, NY: Norton.
- Nunnally, J.C. 1978. *Psychometric theory*, New York, NY: McGraw-Hill.
- Parkhe, A. 2003. Institutional environments, institutional change and international alliances. *Journal of International Management*, 9: 305-316.
- Peng, M. W., and Heath, P. S. 1996. The growth of the firm in planned economies in transformation: Institutions, organizations and strategic choice. *Academy of Management Review*, 21: 492-528.
- Powell, W.W., and DiMaggio, P.J. (Eds.) 1991. *New institutionalism in organizational analysis*, Chicago, IL: University of Chicago Press, 108-140.
- Programa de Apoio a Capacitacao Tecnológica da Indústria (2005), *Reporte de Inovacao Tecnológica nas Micro e Pequenas Empresas*, PACTI, Brasil.
- Roy, W.G. 1997. *Socializing capital: The rise of the large industrial corporation in America*. Princeton, NJ: Princeton University Press.
- Schramm, C.J. 2006. *The Entrepreneurial Imperative*, NY: Harper Collins.
- Scott, W.R. 1995. *Institutions and organizations*. Thousand Oaks, CA: Sage.
- Scott, W.R. and Meyer, J.W. 1991. The organization of societal sectors: Propositions and early evidence. In Powell, W.W., and DiMaggio, P.J. (Eds.) *New Institutionalism in Organizational Analysis*, Chicago, IL.: University of Chicago Press, 108-140.
- Smallbone, D., and Welter, F. 2001. The distinctiveness of entrepreneurship in transition economies. *Small Business Economics*, 16: 249-262.
- Smallbone, D., and Welter, F. 2006. Conceptualizing entrepreneurship in a transition context. *International Journal of Entrepreneurship and Small Business*, 3(2): 190-206.
- Stinchcombe, A.L. 1965. Social structures and organizations. In March, J.G. (Ed.), *Handbook of Organizations*. Chicago, IL: and McNally: 142-193.
- Suchman, M. C. 1995. Managing legitimacy: Strategic and institutional approaches. *Academy of*

- Management Review**, 20: 571-610.
- Ueltschy, L.C. and Castillo, A. 2005. Marketing opportunities at the intersection of formal and informal economies. **Marketing Management Journal**, 15(1): 69-80.
- van Stel, A., Carree, M. and Thurik, R. 2005. The Effect of Entrepreneurial Activity on National Economic Growth, **Small Business Economics**, 24: 311-321.
- Wennekers, A.R.M. and Thurik, A.R. 1999. Linking entrepreneurship and economic growth. **Small Business Economics**, 13(1): 27-55.
- Wong, P.K., Ho, Y.P. and Autio, E. 2005. Entrepreneurship, innovation and economic growth: Evidence from GEM data, **Small Business Economics**, 24: 335-350.
- World Bank (The). 2008. **Doing business indicators**. <http://www.doingbusiness.org>.

APPENDIX

Survey Items

Regulatory Dimension

Regulatory 1: Government organizations in this country assist individuals with starting their own businesses.

Regulatory 2: The government sets aside government contracts for new and small businesses.

Regulatory 3: Local and national governments have special support available for individuals who want to start a new business.

Regulatory 4: The government sponsors organizations that help new businesses develop.

Regulatory 5: Even after failing in an earlier business, the government assists entrepreneurs in starting again.

Cognitive Dimension

Cognitive 1: Individuals know how to legally protect a new business.

Cognitive 2: Those who start new businesses know how to deal with much risk.

Cognitive 3: Those who start new businesses know how to manage risk

Cognitive 4: Most people know where to find information about markets for their products.

Normative Dimension

Normative 1: Turning new ideas into businesses is an admired career path in this country.

Normative 2: In this country, innovative and creative thinking is viewed as a route to success.

Normative 3: Entrepreneurs are admired in this country

Normative 4: People in this country tend to greatly admire those who start their own business.