CULTURAL VALUES AND VENTURE COGNITIONS ON THE PACIFIC RIM

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ABSTRACT

This study investigates the relationship between Cultural Values and Venture Cognitions in seven Pacific Rim countries, to answer the question: What influences the manner in which individual entrepreneurs perceive strategic resources? Using responses to scale items confirmed in a factor analysis, from 371 venture formation experts in Australia, Canada, Chile, mainland China, Japan, Mexico, and the United States, we examine how cultural values are reflected in expertise/schema-based cognitions, that have been shown to affect entrepreneurial intentions. We also discuss the effects this level of cultural understanding might have for portions of the resource "advantage chain" and the importance of the strategic resource attribute "imperfect imitability." Our results show that cultural values have profound and very specific effects on venture cognitions, which has strategic implications for the globalization of emerging business.

INTRODUCTION

Recently, the countries on the Pacific Rim have been regularly grouped together in the many analyses of trading zones (e.g. a major Internet library search engine produced over 200 articles on Pacific Rim trade dated from November, 1997 to February, 1998 alone). According to recent observations, the globalization strategies for emerging businesses on the Pacific Rim must rely on better definition of competitive resources (Courtney, Kirkland, & Viguerie, 1997), value-based competition (Honjo, 1995), a better understanding of customers (Bushko & Raynor, 1997), and a better understanding of location specific (Erramilli, Agarwal, & Kim, 1997) and human (Smith, 1996) resources. Yet such an understanding of the nature of these necessary resources depends upon the perceptions of individual entrepreneurs in these various countries who are likely—because of distinct cultures—to evidence substantial differences in their ways of thinking (Busenitz & Barney, 1994; Manimala, 1992). As the 21st Century dawns, these differences must be better understood, so that the globalization of emerging businesses can be based on sound strategies, and the clear understanding of strategic resources (Barney, 1991; Penrose, 1959).

What influences the manner in which individual entrepreneurs perceive strategic resources? Busenitz and Lau (1996) argue persuasively that, at the individual level of analysis, the cognitive processes of entrepreneurs are correlated with the social and environmental variables that frame cross-cultural venturing outcomes (1996: 28). Their model explicitly links cultural values proposed by Hofstede (1980) with cognitions that then lead to entrepreneurs' intention to venture (1996: 27). With respect to the cognitive structure, or schemas of entrepreneurs, Busenitz and Lau specifically argue that entrepreneurs in different cultures "... have different schemas regarding new venture creation," which ultimately affect opportunity, chances of success, and control over outcomes (1996: 29). They call for research that examines how cultural values are related to schema dimensions (1996: 35).

In response to this call, we explore the portion of the Busenitz and Lau cross-cultural cognitive model of venture creation that links the country of origin-based Hofstede (1980) Cultural Values and key Cognitions of Arrangement, Willingness, and Ability (Leddo & Abelson, 1986; Mitchell & Seawright, 1995; Mitchell, Smith, Seawright, & Morse, 1998). These cognition constructs are expertise-based schema dimensions¹ that have been shown previously to affect

¹ Shapero and Krueger refer to these dimensions as Feasibility, Propensity to Act, and Desirability. However, to be consistent with expert information processing theory e.g. (Leddo & Abelson, 1986: 121) we utilize the construct labels common to that

entrepreneurial intentions (Krueger & Carsrud, 1993; Shapero, 1984). Our analysis centers on a representative group of major participants in Pacific Rim trade, which includes the NAFTA trading bloc (Canada, USA, Mexico), Chile, Japan, Australia and China. The proposed relationships in this study are illustrated in the research model shown in Figure 1.

Insert Figure 1 about here

Our reasoning for examining this particular relationship flows from the notion of the resource "advantage chain" (McGrath, Venkataraman, & MacMillan, 1994) and the importance of the strategic resource attribute "imperfect imitability" (Barney, 1991). Barney (1991) argues that for a resource to be strategic it must have the attributes of being valuable, rare, and non-substitutable. However, if a resource can be imitated, then it is automatically less rare or valuable, and substitutability becomes irrelevant (Miller & Shamsie, 1996: 519). Thus, imperfect imitability is a fourth strategic attribute. Resources can be imperfectly imitable for one of three reasons. First, the resources may have been acquired through unique historical conditions that no longer exist. Second, resources can be imperfectly imitable because of causal ambiguity—a condition that exists when the precise linkage between the resources and sustained competitive advantage is either not understood or is understood only vaguely. Finally, resources can be imperfectly imitable because of social complexity, where competitive advantage is based on teamwork, reputation, or culture (Pringle & Kroll, 1997).

The same conditions that give rise to imperfect imitability among firms in one culture, might also be expected to apply to imperfect imitability of entrepreneurial cognitions across cultures. That is, an increase in entrepreneurs' understanding of the impacts of culture on the cognitions of fellow entrepreneurs, prospective customers, suppliers, etc. might be useful in the more precise identification of the strategic resources possible in the globalization of emerging business. Studies are needed that specifically relate cultural variables to venturing variables that apply more consistently across countries and cultures (Hisrich, Honig-Haftel, McDougall, & Oviatt, 1996). This study attempts to identify such variables.

The article proceeds as follows. Our discussion of the conceptualization of the variables in the model follows next, along with the hypotheses that are suggested in these relationships. Then, we outline our methods, and the results of our tests. The article concludes with a discussion of the state of the culture/cognition link as it applies to the strategies for the globalization of emerging businesses in the 21st Century.

THEORY

Cultural Values

Scholarly work in the area of culture and cognition dates back over 40 years to early work that associates culture with the way human societies organize knowledge and social behavior (Kroeber & Kluckhohn, 1952). A key stepping stone to the notion that culture is a fairly consistent set of value orientations, was the idea that there are a limited number of common problems that societies face, and also a limited number of known responses (Kluckhohn & Strodbeck, 1961). This theoretical work was corroborated by Hofstede (1980), who gathered approximately 88,000 of responses to questionnaires administered to the employees of IBM over the period 1967 - 1978. In this study, Hofstede defined culture as "... collective programming of the mind" (1980: 13), and a value as "... a broad tendency to prefer certain states of affairs over others" (1980: 19), consistent with other scholars who treat values as cognitions/mental programs (Kluckhohn, 1951; Rokeach, 1972). The results in this study show stable differences in cultural values over time.

Hofstede (1980) found that cultural differences across societies can be reduced to four quantifiable dimensions: power distance, individualism, uncertainty avoidance, and masculinity². However, Hofstede & Bond (1988) raise question the completeness of the dimensions for Asian respondents, suggesting an additional dimension termed "Confucian Dynamism," which Hofstede later termed "time orientation" (Hofstede, 1991). Power distance refers to the acceptance of inequality in power and authority between individuals in a society. Individualism represents a preference for acting in the interest of the self and immediate family, as opposed to collectivism, which represents an individual's acting in the interest of the group in exchange for their loyalty and support. Uncertainty avoidance captures individual discomfort with unstructured or ambiguous situations—the preference for certainty. The Masculinity² variable represents a belief in and emphasis on materialism and decisiveness rather than in/on service and intuition (Hofstede, 1980). The Time Orientation Variable emphasizes persistence, thrift, a sense of shame, and or ordering relationships by status—and observing that order; and it underemphasizes personal stability,

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² McGrath et al., 1992, have suggested that masculinity might be better conceptualized as "materialism." Other authors have suggested that this dimension captures "Recognition Motivation" (Mitchell et al., 1998). We use the materialism idea herein.

protecting "face," reciprocal favors/gifts, and respect for tradition. Hofstede quantifies the variations in these values systematically by country (Hofstede, 1980; Hofstede & Bond, 1988).

Venture Cognitions

Social cognition theory considers that individuals exist within a total situation or *configuration of forces* described by two pairs of factors: one being *cognition* and *motivation*, and the other being the *person* in the *situation* (emphasis in original) (Fiske & Taylor, 1984: 4-5; Lewin, 1951). Social cognition theory holds that for a model to describe predictable individual behavior, such a model should approximate comprehensive cognitive reality (cognition and motivation; <u>and</u> the person-in-situation) as perceived by each individual (Fiske & Taylor, 1984: 5). It must account for the decision-making behavior of individuals who, as a result of differential pattern recognition, differentially perceive a given situation.

In their cross-cultural cognitive model of venture creation Busenitz and Lau (1996) propose a relationship between person-in-situation (cultural) variables and cognition-motivation (cognitive structure and start-up intention) variables (1996: 27) to explain key outcome variables such as intention to venture. Although Busenitz and Lau propose the use of the Hofstede (1980) variables to represent cultural values, they leave open the operationalization of cognitions, due to the fact that ". . . . entrepreneurs have rarely been examined from a cognitive perspective" (1996: 26). Fortunately, prior work in the information processing branch of cognition theory suggests a framework for the representation and operationalization of variables that meet the cognition-motivation requirements of social cognition theory such that it can—taken together with the person-in-situation (cultural) variables—approximate comprehensive cognitive reality.

Information processing theorists, Leddo and Abelson (1986) identify three components of the cognitive process that reveal the cognition-motivation link. These components relate to the use by individuals of knowledge structures (Glaser, 1984; Lord & Maher, 1990; Walsh, 1995). Their findings suggest that these knowledge structure-related components can be observed empirically, making operationalization possible. Essentially, Leddo and Abelson find that the cognition-motivation link occurs at two key points in the cognitive process. These points occur either: (1) at the time of "entry" into a knowledge structure (e.g. begin to think about venturing), or (2) as individuals engage in "doing" the things that serve the main goal for entry (e.g., work at venturing).

"Entry" into the knowledge structure for a domain depends upon "... having the objects in question" (Leddo & Abelson, 1986). For example, an expert helicopter pilot requires a helicopter, an expert seismic geologist a seismograph, an expert trauma physician a well equipped emergency room. "Doing" means accomplishing the required actions, and depends upon two subrequirements: ability and willingness. Ability is defined as possessing the rudimentary techniques and skills necessary to a specialized domain (e.g., closing the deal may depend upon one's persuasive skill) (Leddo & Abelson, 1986: 121). Willingness, in turn is defined as the propensity to act.

In the case of venturing, the "entry" and "doing" action thresholds of expert information processing theory parallel the theoretical (Shapero, 1982) and empirical (Krueger, 1993) action thresholds that explain individual intentions to venture. Thus "entry" (the beginning processes of venturing) depends upon feasibility—specifically upon "arranging" to employ resources from that environment such as capital, opportunity, contacts, etc., and "doing" depends upon a combination of ability and willingness. Since information processing theory suggests that expert level performance results from the cognitive processes of individuals who employ an expert knowledge structures (Ericsson & Charness, 1994; Glaser, 1984; Lord & Maher, 1990), then it can be argued that venturing outcomes ought to be related to cognitions which contain the "entry"-based component Arrangement Cognitions, and the "doing" components: Willingness and Ability Cognitions.

Empirical observation of "entry" and "doing" cognitions is accomplished using person-insituation cues to trigger responses that reveal portions of individuals' knowledge structures. The
justification for using schema and/or heuristic recognition cues as empirical evidence of expert
cognitions comes from expert and social cognition theory. The inability to infer further knowledge
from the literal cues in the problem statement is considered to be the primary reason for an
individual's difficulty with problem solving (Glaser, 1984, p. 99). And, the belief in one's own
capacity of perform depends upon the assessment of personal and situational resources (Gist &
Mitchell, 1992), which we define as Arrangement Cognitions, and is discussed next.

Arrangement cognitions. In the formation of successful ventures, factors in the social environment affect cognition and influence results. Specifically, the cognitive construct of self-efficacy, derived from social cognitive theory (Bandura, 1986), is thought to play a primary role in relating individual judgments about a person's situation to consequences such as goal level and

persistence, and ultimately to performance (Gist & Mitchell, 1992). Thus, cognitions surrounding the sufficiency of venture arrangements are thought to play a primary role in venture outcomes.

Arrangement Cognitions denote having the contacts, relationships, resources, and assets necessary to form a new venture. Without arrangements, "entry" into the cognitive process is precluded (Leddo & Abelson, 1986, p. 121). At least four types of Arrangement Cognitions that affect cognition are evident in the entrepreneurship literature: (1) Idea Protection (Porter, 1985; Rumelt, 1987), having (2) Actual Venture Resources, or having (3) Access to Resources (Bull & Willard, 1993; Vesper, 1996), and (4) Venture Specific Skills (Cooper & Dunkelberg, 1987; Herron & Robinson, 1993). Idea Protection is accomplished with patents, copyright, franchise agreements, contracts, and other isolating arrangements that serve to prevent imitation (Rumelt, 1987) thus signaling to a prospective venturer that resources from the environment are available with some degree of certainty to support venture formation. Of course, preceding the need to protect intellectual and physical resources is the actual possession or access to resources. Thus, the extent to which a prospective venturer controls or has access to financial and human capital, and other business assets and resources is also a necessary precondition for new venture formation (Vesper, 1996). Finally, Venture Specific Skills—the capability to effectively deploy the resources and make the most of protected ideas—serve to encourage the successful formation of a venture. These four types of arrangements are needed for, or are advantageous to, successful new venture formation (Vesper, 1996).

There is growing recognition in the entrepreneurship literature that it is not merely arrangements surrounding the venturer that are central to new venture success but that there are characteristics of the venture itself that are systematically linked to the formation of successful ventures (Cooper, 1993). As noted in the preceding paragraph, having an idea that is protected from competition, a network of people and contacts that can aid or participate in the business, sufficient financial and other general business resources, and proprietary assets or capabilities that provide sustainable competitive advantage are all critical arrangements that have been individually linked to venture success. Thus, successful venturers are expected to recognize the importance of these arrangements and be particularly sensitized to their own shortcomings in these areas. This is because the assessment of personal and situational resource constraints is understood to affect an individual's

self-efficacy (Gist & Mitchell, 1992), which has been shown to be crucial for new venture formation (Krueger, 1993; Krueger & Dickson, 1993; Mitchell & Seawright, 1995; Mitchell et al., 1998).

Willingness cognitions. Willingness Cognitions consist of thoughts relating to commitment to venturing, and receptivity to the idea of starting a venture. Successful venture formation requires Willingness Cognitions, which include: (1) an opportunity Seeking Focus (Krueger & Dickson, 1993; Krueger & Brazeal, 1994), (2) Commitment Tolerance (Ghemawat, 1991), and (3) Motivation to pursue venture opportunities (McClelland, 1968; Sexton & Bowman-Upton, 1985; Stevenson, Roberts, & Grousbeck, 1994). A Seeking Focus is an openness, orientation, and drive to seek out new situations and possibilities and to try new things. Commitment Tolerance is a willingness to "put your money where your mouth is" and assume the risk and responsibility of new venture creation. Opportunity Motivation is an attitude concerned with "getting on with the task" and the belief that missing an opportunity is worse than trying and failing.

Willingness dimensions such as the foregoing are thought to be necessary cognitive conditions for successful new venture formation (Busenitz & Lau, 1996). Entrepreneurs need to be comfortable in new and uncertain situations, be prone to action, and be willing to demonstrate their commitment by investing time, money, and other resources in the venture. Successful venturers are expected to recognize the importance of these attributes (Mitchell, 1994; Mitchell et al., 1998) and to attribute them to their own situation (Gist & Mitchell, 1992) to a greater extent than will others, who may not appreciate the level of cognitive commitment needed to utilize venturing abilities (Krueger & Carsrud, 1993; Mitchell et al., 1998).

Ability cognitions. Ability Cognitions reflect the possession of and capability to masterfully deploy the skills, knowledge, norms and attitudes required to be successful in new venture development (Vesper, 1996). At least four cognitive dimensions of Venturing Ability appear in the entrepreneurship literature: (1) Venture Experience, (2) Venturing Diagnostic Ability, (3) Venture Situational Knowledge, and (4) Opportunity Recognition capability. Venture Experience is the extent to which an individual has been directly involved in the start-up and running of a new venture (Stuart & Abetti, 1990; Vesper, 1980). Venturing Diagnostic Ability is the ability to assess the condition and potential of ventures and understand the systematic elements involved in new venture creation (Bird, 1988; Boyd & Vozikis, 1994; Krueger & Carsrud, 1993). Venture Situational

Knowledge is the ability to draw on lessons learned in a variety of ventures and apply those lessons to a specific situation (Vesper, 1996). Finally, Opportunity Recognition capability is the ability to see ways in which both customer and venture value can be created in new combinations of people, materials, or products (Glade, 1967; Kirzner, 1982).

These experiences, knowledge and abilities are thought to be necessary conditions for successful venture creation, because common pitfalls can be avoided when they are effectively utilized (Vesper, 1996). Previous venture experience is critical both from a learning perspective and a credibility perspective when it comes to venture financing and the establishment of stakeholder relationships. Successful venturers also need to be able to assess the potential of the business, apply situational norms, and recognize opportunity to fully understand what is required for successful venture start-up. Through the assessment of personal constraints, the analysis of task requirements, and the attributional analysis of experiences (Gist & Mitchell, 1992: 189, 203) these venturers are expected to recognize that these abilities are required for successful venture creation, and indicate the capability to use them. On the other hand, individuals who have not ventured, or who have ventured but not succeeded, may have a general idea of what is required but are not expected to have specific knowledge or the skill to use critical venture creation abilities.

Cultural Values and Cognition

Hofstede argues that cultural values lead to societal norms, which in turn lead to particular organizational and intellectual structures (Hofstede, 1980: 373). Busenitz and Lau (1996) suggest the existence of direct causal relationship between Cultural Values and Cognitions. Hofstede (1980) further argues that the stability of culture is based upon the systems of constant reinforcement that exist within societies. It is beyond the scope of this study to elaborate and test a model that includes all of the factors (education, early life experience in families and schools, political and economic realities, and socialization in organizations and institutions) that reinforce culture. However, in this study we do take the conservative first step of examining the relationship between Cultural Values and Venture Cognitions as defined previously in the article. That is, in this article we suggest the possibility that the situation-specific nature of venturing may have its own norms/cognitions—a global culture of entrepreneurship, if the reader will permit—which, rather than being created within

a given country, has been created (paraphrasing Kluckhohn, 1961) by the limited number of common problems that venturers face, along with a limited number of known responses.

Hence, with definition of the Hofstede (1980) Cultural Values with respect to each country, and the variables that dimensionalize the Arrangements, Willingness, and Ability attributes of expertise (prior section), the relationship between Cultural Values and the schemas of venturers may be mapped. Table 1 provides the logic for each of 39 hypothesized relationships between Hofstede's five Cultural Values and the ten expertise (venturer schema/Cognition) variables that we have previously discussed.

Insert Table 1 about here

Table 2 summarizes the hypothesized direction of the relationship among variables as follows. Based upon the foregoing research and logical development, it is expected that:

Hypothesis 1_{1-39} : Each Cultural Value will be related to the variables representing the Venture Cognitions of individuals in the manner shown in Table 2.

Insert Table 2 about here

Summary

In this section we have developed a portion of the Busenitz and Lau (1996) cross-cultural cognitive model of venture creation into testable hypotheses. We now explain the data collection, measurement, and data analysis methods used to test the foregoing hypotheses.

METHODS

Data Collection

To test the hypotheses depicted in the conceptual model (Figure 1) data were collected from a convenience sample of 863 respondents in the U.S., Mexico, Canada, Australia, Chile, Japan and China, all of whom had business training or experience and 371 of whom were venture formation experts. Venture formation experts had either started a venture that was at least two years old, had started at least three businesses, one of which they deemed to be successful, or had extensive

experience with venture start-ups as advisors or venture capitalists. All respondents completed a structured survey instrument that was translated into their native language.

Care was taken to translate the instrument in a fashion meaningful to each culture. A native of each country, who spoke English as a second language was selected to translate the instrument from English into the native language. Each question was talked through with the native to develop a shared understanding of the question. After the survey was translated, a native English speaker, who spoke the foreign language, translated the instrument back into English. Where discrepancies arose both translators and one of the researchers would sit down to reconcile the differences. However, even with the care taken to translate the survey instrument, it is still limited by the fact that it was generated by North American researchers based upon research theory from predominantly Western Journals (Hofstede, 1994).

To improve the representation of the convenience sample, an effort was made to collect data from at least two regions in each country. For example, data were collected from entrepreneurs and nonentrepreneurs in both Eastern and Western Australia. Business contacts in each of the countries were made and surveys were personally delivered and retrieved, assuring an almost 100% response rate (a small number of the surveys were refused). Within each country an attempt was made to create matched samples to limit the potential number of confounding variables. "Matching samples means that the respondents should be people who are as similar as possible in all aspects of their lives except for their nationality" (Hofstede & Bond, 1988: 9). We attempted to match our samples in terms of business experience, age, sex, and education.

Of the 371 qualified respondents, 132 are from North America (67 from the United States, 65 from Canada), 126 are from Central and South America (103 from Mexico, 23 from Chile), 83 are from Asia (52 from China and 31 from Japan) and 30 are from Australia. Seventy-two percent of respondents are male, and this is consistent across all the countries, except for Japan where only 6% of respondents are female. The median age of respondents is 30 years, which is also consistent across countries except for Canada (median age of 25) and Japan (median age of 43). Respondents are found to also be reasonably matched in terms of education. The median level of formal education is a bachelors degree in the U.S., Canada, Mexico, and Japan and some college or University in Australia and Chile. In spite of these differences among the country sub-samples, demographic profiles (Table 3) suggest that the samples are quite closely matched, as Hofstede and Bond (1988) recommend. Consequently, the sample is considered sufficient to test hypothesized relationships, at least in an exploratory fashion. The sample actually provides a conservative test. Sampled novices, through

their business education or experience, are more likely than other novices to recognize cues associated with successful new venture formation. In addition, and as noted earlier in the article, the threshold utilized for "venture formation expert" may actually be lower than the level utilized elsewhere.

Insert Table 3 about here

Measurement

The dependent construct of the model, Venture Cognitions, is measured using Arrangement, Willingness, and Ability Cognitions variables, which were measured using the sum of paired script cue items (Nunnally, 1978) (see Table 4 for means, standard deviations and correlations). These items, listed in the Appendix, use paired script recognition and distracter cues consistent with an accepted script-scenario construction model (Read, 1987). Appropriate script and distracter cue items were derived from a review of the entrepreneurship and expert theory literature and from interviews with practicing entrepreneurs and non-entrepreneurs in the United States and are thus grounded in both the theoretical and substantive domain (Riordan & Vandenberg, 1994)³. For each conceptualized dimension of Arrangement, Willingness, and Ability Cognitions items were developed and scored "1" for cue recognition and "0" for non-cue recognition.

The Cultural Values Construct was measured using the Hofstede (1980: 315), and Hofstede and Bond (1988:12) country scores. The nine Pacific Rim countries analyzed in this study were grouped into three categories for four of the five cultural dimensions (Table 4). Uncertainty avoidance scores were dichotomous between the nine countries and so two categories were used for this dimension. China was not part of the original Hofstede (1980) study and so scores were approximated based upon the results of the McGrath et. al. (1992) study. In this study, McGrath et.

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³ As the research using script cue-based instrumentation develops, it seems to be essential that construct equivalency procedures similar to those set forth in Riordan & Vandenburg (1994) be followed. It should be noted, however, that the utilization of a covariance structure to test the stability and transferability of organizational measures between groups in cross-cultural research presumes that the instrumentation to be so examined has ample evidence supporting reliability and validity in one culture, and that the underlying properties have been well researched (1994: 646).

Where exploratory scales are under concurrent development in a variety of cultures—as is the case in this study—it is not clear that extensive covariance analysis of construct equivalency will be meaningful or useful at this stage of the research. Rather, it appears to be more productive to attempt through matched samples (Hofstede, 1988: 9) and a hierarchical analytical technique (utilized herein), to identify key areas of cross-cultural sensitivity, so that reliability and validity scale development analyses can be performed concurrent with research into the underlying properties of script cue-based instrumentation.

al. found that China and Taiwan were similar in regards to Individualism and Materialism, and so Taiwan's scores were used on these two dimensions for grouping purposes. However, for Power Distance and Uncertainty Avoidance the authors found that Taiwan had moved closer to the U.S. and so higher scores were attributed to China than Taiwan on these two dimensions. In addition, no scores were available for Mexico and Chile on the Time Orientation dimension. These countries were grouped together as medium on this dimension, as the only comparison point in Latin America was Brazil which would have grouped at a mid level on this dimension.

Insert Table 4 about here

Confirmatory factor analysis (deploying a minimum Eigen value of 1 and varimax rotation) was then used to assess construct validity (Bryant & Yarnold, 1995). As illustrated in Table 5, support was found for the five conceptualized dimensions of Arrangement Cognitions and the three conceptualized dimensions of Willingness Cognitions. Four dimensions of Ability Cognitions were found, instead of the three conceptualized. Item loadings suggest that in addition to Venture Situational Knowledge and Opportunity Recognition Capability, the other two dimensions might be better labeled "Ability/Opportunity Fit" and "Venturing Diagnostic Ability." One variable (V3) was dropped from the analysis because of mixed loadings and higher loadings on an unintended factor. While a few other variables with mixed loadings, these were retained as they loaded on intended constructs and we used summed scales for analysis.

In light of the significance of the loadings and their general conformance with construct conceptualization and theory (Hair, 1992), the Cognition scales were judged to be acceptable for further analysis. Items were summed by factor (dimension) and these dimensions were summed to create a continuous scales of Arrangement, Willingness, and Ability Cognitions (Nunnally, 1978).

Insert Table 5 about here

Our overall approach to the testing of the 39 hypotheses previously presented is conservative to reflect the preliminary nature of this research, while we run the risk of not finding any potential relationships we are more certain of significant findings. In this study we were particularly interested in the affects of culture on the cognition of new venture formation experts, and for this reason selected the 371 respondents, which were classified in this manner, for analysis. As we were

interested in the directional effects of culture on cognition a simple correlation analysis was performed on the data.

Insert Table 6 about here

RESULTS & DISCUSSION

We find that Cultural Values have a significant relationship to Venture Cognitions, although not always in ways that we expected. Of the 39 hypothesized relationships, only 11 were not supported. And, of the remaining 28 significant relationships, 15 received support or strong support for a relationship in the predicted direction, while 13 were shown to be related in a direction that is opposite to that predicted. Surprisingly, 9 of the 16 potential relationships classified as Not Applicable in our conceptualization (Table 1) were also shown to have significant relationships. Thus, we find that over two thirds of the relationships between Cultural Values and Venture Cognitions are significant.

Insert Table 7 about here

Our exploratory experience in hypothesizing and testing these relationships has been instructive. First, we learn how unlikely it is that—unaided—one can use logic and a "one-country" perspective to predict the Venture Cognitions of individuals in other countries. This suggests caution in making suppositions about venturers in other cultures. But second, we also learn that the connection proposed by Busenitz and Lau (1996) is robust insofar as we have tested it. This, we think, is good news for international entrepreneurship scholars who are attempting to "civilize" the study of emerging business in the global setting through the search for what is systematic in human behavior.

Earlier, we noted that venturing on the Pacific Rim would require a better definition of competitive resources (Courtney et al., 1997) and a better understanding of human (Smith, 1996) resources. We find that Power Distance, Individualism, Uncertainty Avoidance, and Time Orientation have a significant relationship with Arrangement Cognitions in 15 of 16 possible cases, which does contribute to a better definition of competitive and human resources.

We find that the cultural value of Materialism/Masculinity is largely unrelated to Venture Cognitions, except in the Ability Cognitions areas of Venture Diagnostics and Venture Experience, where these constructs are negatively correlated, and in the area of Opportunity Recognition, where the correlation is positive. And, since we conceptualized all three of these relationships as Not Applicable, we have no prior theory to explain the finding. A *post hoc* reason might be spring from the Desirability construct found in the intentions literature (Krueger, 1993; Krueger & Carsrud, 1993; Shapero, 1984) which might suggest that those who desire wealth would have the experiences and abilities related to that desire, once again revealing more about competitive and human resources.

Another general finding is that the construct, Seeking Focus, is shown to be unrelated to any of the Cultural Values dimensions. This finding indicates to us that Willingness Cognitions (an thus competitive resources) are shaped mainly by Commitment Tolerance and somewhat (Power Distance, Individualism, and Uncertainty Avoidance) by Opportunity Motivation.

CONCLUSION

The search for what is systematic in human behavior is the search for civilization (Durant, 1935). But though systematic, cultures have very different solutions for the relatively few fundamental problems that confront mankind (Hofstede, 1980; Kluckhohn & Strodbeck, 1961); one of which is to provide for economic security (1935: 3). In this article we argue that, at the individual level of analysis, the Cultural Values of entrepreneurs will have a differential effect on cognitions related to venturing, due to differences in the ways that various cultures around the Pacific Rim approach the quest for economic security. Specifically, we have used the theory of planned behavior (Shapero, 1984), which has previously been shown to predict entrepreneurial intentions (Krueger & Carsrud, 1993), to test the link between Cultural Values and Venture Cognitions as it has been proposed in a cross-cultural cognitive model of venture creation, with entrepreneurial intentions as one of the outcomes (Busenitz & Lau, 1996).

Why are such tests important? We suggest that when the manner in which individual entrepreneurs perceive strategic resources is better understood, the globalization of emerging businesses is more likely to be based on sound strategies.

Recently—with its application at the societal level of analysis—the resource-based view of strategy has been used to explain strategic outcomes beyond those at the firm level (Pringle & Kroll, 1997). Entrepreneurship is a field where resources associated with individuals is important. We

have therefore hypothesized the ways in which Cultural Values will impact individual Arrangement, Willingness, and Ability Cognitions related to venturing in seven Pacific Rim countries (Table 1). One notion in resource-based theory suggests that this kind of specific understanding of resource "stocks" (the cross-cultural state of solutions of venturing problems) should therefore point to the types of "flows" that are needed to improve sustained competitive advantage (Barney, 1991; Dierickx & Cool, 1989). Many strategic battles can thereby be won before they are even fought (Pringle & Kroll, 1997), with greater economic security being the result.

Overall, this study gives us the opportunity to open a window into the nature of Venture Cognitions as they are influenced by Cultural Values. Further, it supports the conceptualization of cross-cultural venture cognitions proposed by Busenitz and Lau (1996), and reveals more about the specific nature of the relationships involved. It is our hope that the observed relationships can serve as a foundation for better venturing strategy and practice, as emerging businesses globalize in the 21st Century.

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TABLE 1: Rationale for Hypothesized Relationships

Variable	Power Distance	Individualism	Uncertainty Avoidance	Materialism (Masculinity)	Time Orientation
AR1 Protectable Idea	Collusion/scarcity is a basis for power. Thus, PD suggests PI.	Collective societies limit private property and the protection of individual ideas. Thus, I implies PI.	Protectable ideas are a condition necessary for UA's to venture. Thus, UA suggests PI.	N/A	Low TO means respect for tradition and stability. Thus, low TO suggests high PI.
AR2 Resource Access	In high PD countries "who you know" counts. Thus, high PD implies low RA for the society as a whole.	Individualistic cultures support private access to resources. Thus, high I suggests high RA.	N/A	Those scanning for wealth are more aware of resource sources. Thus, M suggests RA.	Thrift suggest access to required resources through savings. High TO suggests high RA.
AR3 Resource Possession	Those with power have resources. Thus, high PD suggests low RP for the society as a whole.	Collective societies limit the possession of venturing resources by individuals. Thus, I suggests RP.	N/A	Those who are materialistic should possess resources which they are trying to increase. Thus, M suggests RP.	N/A
AR4 Venture Specific Skills	The distribution of available resources will be limited in high power distance societies. Thus, PD suggests low VSS.	Due to bureaucratic pressures, collectives should have fewer venture specific resources. Thus, high I suggests high VSS.	Societies with uncertainty avoidance are likely to discourage venturing, and thence the acquisition of venturing skill. Thus, high UA suggests low VSS.	N/A	High TO suggests high VSS through belief in an entrepreneurial posture.
W1 "Seeking" Focus	N/A	N/A	Those with high UA are not expected to "seek." Thus, high UA suggests low SF.	People who want rewards should be actively scanning for ways to obtain them. Thus, high M suggests high SF.	People with high persistence will have a high seeking focus. High TO suggests high SF.
W2 Commitment Tolerance	N/A	In collective societies, people will be unwilling to make individual commitments. Thus, high I suggests high CT.	Uncertainty avoiders tend to avoid making commitments also. Thus, high UA suggests low CT.	Those who want rewards tend to be willing to make commitments. Thus, high M suggests high CT.	High persistence implies commitment tolerance. High TO suggests high CT.
W3 Opportunity Motivation	Those socialized to power tend to engage opportunities. Thus, high PD suggests high OM.	N/A	Because opportunity suggests uncertainty, high UA suggests low OM.	Those who want rewards tend to act on opportunity. Thus, high M suggests high OM.	"Face" and personal steadiness/stability will have low OM. Thus low TO suggests low OM.
A1 Venture Experience	Because hierarchy may limit the entree to experiences in ventures, high PD suggests low VE.	We expect people in low "I" societies to have group v. separate venture experience. High I thus suggests high VE.	People who avoid uncertainty are unlikely to have venture experience. Thus high UA suggests low VE.	N/A	N/A
A2 Venture Diagnostics	Because hierarchy may limit experiences in ventures, high PD suggests low ability in Venture Diagnosis.	Where all economic activity is collective, ventures and their diagnosis may be moot. High I suggests high Venture Diagnosis Ability.	Uncertainty avoiders should systematically lack the knowledge needed to diagnose ventures. Hence, high UA suggests low VDA.	N/A	High TO: persistence and sense of shame for "missing something" if a deal fails should motivate high VDA.
A3 Situational Knowledge	N/A	People in low "I" societies should know few stories of individual ventures thus having limited situational knowledge. High I thus suggests high SK.	The presence of uncertainty avoidance in venture situations should be minimal. High UA therefore suggests low SK.	N/A	Low TO should lead to low SK, and those with a high entrepreneurial posture would likely have higher SK.
A4 Opportunity Recognition	N/A	Not good to say "I" have an idea; s/b a group success scenario. Low I suggests low OR.	For UA's, things that are risky will not be seen as opportunities. High UA suggests low OR	N/A	Those in tune with social contacts (high TO) will be higher OR than those who are tradition bound.

TABLE 2: Direction of Hypothesized Relationships

Variable	Power Distance	Individualism	Uncertainty Avoidance	Materialism (Masculinity)	Time Orientation
AR1 Protectable Idea	H1 ₁ : +	H1 ₈ : +	H1 ₁₇ : -	N/A	H1 ₃₁ : -
AR2 Resource Access	H1 ₂ : -	H1 ₉ : +	N/A	H1 ₂₆ : +	H1 ₃₂ : +
AR3 Resource Possession	H1 ₃ : -	H1 ₁₀ : +	N/A	H1 ₂₇ : +	N/A
AR4 Venture Specific Skills	H1 ₄ : -	H1 ₁₁ : +	H1 ₁₈ : -	N/A	H1 ₃₃ : +
W1 "Seeking" Focus	N/A	N/A	H1 ₁₉ : -	H1 ₂₈ : +	H1 ₃₄ : +
W2 Commitment Tolerance	N/A	H1 ₁₂ : +	H1 ₂₀ : -	H1 ₂₉ : +	H1 ₃₅ : +
W3 Opportunity Motivation	H15: +	N/A	H1 ₂₁ : -	H1 ₃₀ : +	H1 ₃₆ : +
A1 Venture Experience	H1 ₆ : -	H1 ₁₃ : +	H1 ₂₂ : -	N/A	N/A
A2 Venture Diagnostics	H1 ₇ : -	H1 ₁₄ : +	H1 ₂₃ : -	N/A	H1 ₃₇ : +
A3 Situational Knowledge	N/A	H1 ₁₅ : +	H1 ₂₄ : -	N/A	H1 ₃₈ : +
A4 Opportunity Recognition	N/A	H1 ₁₆ : +	H1 ₂₅ : -	N/A	H1 ₃₉ : +

TABLE 3
Sample Characteristics

	U.S.	CAN.	AUL.	MEX.	CHL.	JPN.	CHN.	TOTAL	
Sample Size (N)	201	163	61	187	34	53	164	863	
Sex									
Male	148	124	42	120	23	50	116	623	
Female	52	39	17	67	10	3	32	220	
Median Age	30	25	35	27	36	43	30	30	
Venture Formation Experts	67	65	30	103	23	31	52	371	

TABLE 4 Country Groupings

	Power Distance	Individualism	Uncertainty Avoidance	Masculinity	Time Orientation
High	Chile Mexico	Australia Canada U.S.	Mexico Japan China Chile	Japan Mexico	China Japan
Medium	China Japan	Japan Mexico	N/A	Australia Canada U.S.	Chile Mexico
Low	Australia Canada U.S.	Chile China	Australia Canada U.S.	Chile China	Australia Canada U.S.

TABLE 5
Factor Analysis Results

		Arra	ngemer	nt Cogn	itions		Willingness Cognitions				Ability Cognitions			ons
		F1	F2	F3	F4		F1	F2	F3		F1	F2	F3	F4
/ariable / Factor Loadi	ng													
	V18	.52				V41	.61			V16	.70			
	V20	.70				V33	.61			V29	.62			
	V8	.59				V37	.68			V48		.54		
	V45	.48				V38	.47			V11		.70		
	V3*	.29		.34		V7		.74		V40		.64		
	V35		.83			V12		.77		V4			.56	
	V14		.75			V31			.72	V42	.35		.42	
	V47			.69		V28			.52	V44			.69	
	V36				.80	V32			.60	V9				.70
										V19				.60
										V27				
Percent of Variance		18.3	14.0	12.7	11.3		20.2	13.1	11.6		15.7	10.8	9.9	9.4

Note. Based on item loadings, Arrangement Cognition factors are labeled: "Protectable Idea", "Resource Access", "Resource Possession", and "Venture Specific Skills", respectively. Willingness Cognition factors are: "Seeking Focus", "Commitment Tolerance" and "Opportunity Motivation. Ability Cognition factors are: "Situational Knowledge", "Opportunity Recognition", "Venture Experience", and "Venturing Diagnostic Ability". * Removed from analysis because it loaded higher on an unintended factor than on the intended factor. Loadings of less than .25 are suppressed.

TABLE 6 Means, Standard Deviations, Correlations

	Mean S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Protectable Idea	2.43 1.10															
2 Resource Access	0.75 0.77	.02														
3 Resource Possession	0.38 0.49	02	.06													
4 Venture Specific Skills	0.62 0.49	.19 ***	00	01												
5 Seeking focus	2.37 1.17	.16 ***	.05	06	.05											
6 Commitment Tolerance	0.81 0.78	07	.12 *	.11 *	06	.12 *										
7 Opportunity Motivation	1.65 0.95	.25 ***	.06	03	.10	.20 ***	.08									
8 Venture Experience	1.14 0.89	.03	.11 *	.20 ***	.00	.13 *	.00	.00								
9 Venture Diagnostics	1.30 0.98	.12 *	.15 ***	04	.15 **	.16 **	06	.16 **	.14 **							
10 Situational Knowledge	0.71 0.72	01	.05	.03	06	.16 **	.10	.05	.20 ***	.17 ***						
11 Opportunity Recognition	1.91 0.91	.15 **	.08	.05	.11 *	.13 *	09	.05	.07	.11 *	.06					
12 Power Distance	2.10 0.88	.33 ***	21 ***	25 ***	.27 ***	.04	21 ***	.16 **	26 ***	.07	19 ***	.18 ***				
13 Individualism	1.77 0.77	25 ***	.20 ***	.13 *	25 ***	08	.19 ***	18 ***	.06	24 ***	.18 ***	09	71 ***			
14 Uncertainty Avoicance	1.87 0.99	.30 ***	20 ***	17 ***	.31 ***	.05	21 ***	.13 *	14 **	.17 ***	21 ***	.17 ***	.91 ***	88 ***		
15 Masculinity	1.84 0.73	.08	01	07	.10	05	05	09	17 ***	16 **	04	.16 **	.36 ***	.29 ***	.19 ***	
16 Time Orientation	2.21 0.79	.20 ***	15 **	05	.29 ***	.06	18 ***	.08	.02	.24 ***	18 ***	.12 *	.61 ***	88 ***	.88 ***	04

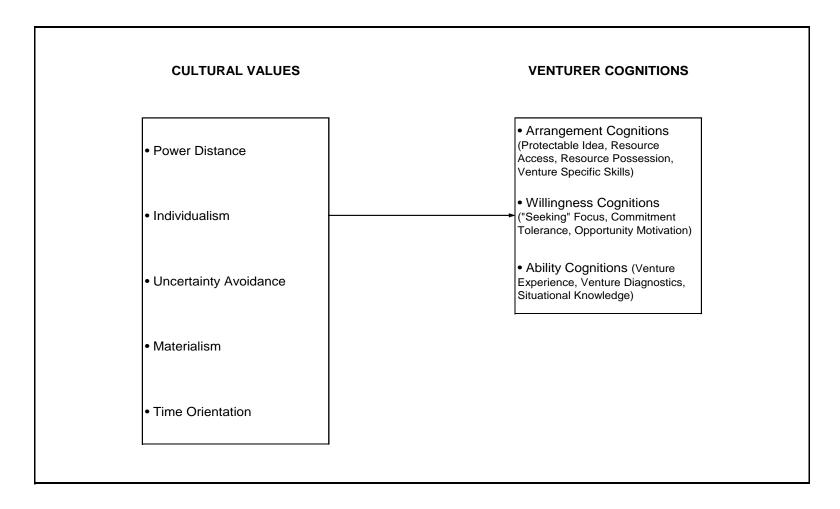
n=371

^{*} p < .05 ** p < .01 *** p < .001

TABLE 7: Findings

Variable	Power Distance	Individualism	Uncertainty Avoidance	Materialism (Masculinity)	Time Orientation
AR1 Protectable Idea	H1 ₁ : + Strong Support	$H1_8$: + Contrary Finding	$H1_{17}$: - Contrary Finding	N/A	$H1_{31}$: - Contrary Finding
AR2 Resource Access	H12: - Strong Support	H1 ₉ : +	N/A	H1 ₂₆ : +	H1 ₃₂ : + Contrary Finding
AR3 Resource Possession	H1 ₃ : - Strong Support	<i>H1</i> ₁₀ : + Support	N/A	<i>H1₂₇:</i> + No Support	N/A
AR4 Venture Specific	H1₄: +	H1 ₁₁ : +	H1 ₁₈ : -	N/A	H1 ₃₃ : +
Skills	Contrary Finding	Contrary Finding	Contrary Finding		Strong Support
W1 "Seeking" Focus	N/A	N/A	H1 ₁₉ : - No Support	$H1_{28}$: + No Support	<i>H1₃₄:</i> + No Support
W2 Commitment Tolerance	N/A	H1 ₁₂ : + Strong Support	H1 ₂₀ : - Strong Support	H1 ₂₉ : +	H1 ₃₅ : + Contrary Finding
W3 Opportunity Motivation	H1 ₅ : +	N/A	$H1_{2l}$: - Contrary Finding	H1 ₃₀ : +	H1 ₃₆ : +
A1 Venture Experience	H1 ₆ : - Strong Support	H1 ₁₃ : +	H1 ₂₂ : - Support	N/A	N/A
A2 Venture Diagnostics	H1 ₇ : -	H1 ₁₄ : + Contrary Finding	H1 ₂₃ : - Contrary Finding	N/A	H1 ₃₇ : + Strong Support
A3 Situational Knowledge	N/A	H1 ₁₅ : + Strong Support	H1 ₂₄ : - Strong Support	N/A	H1 ₃₈ : + Contrary Finding
A4 Opportunity Recognition	N/A	H1 ₁₆ : +	H1 ₂₅ : - Contrary Finding	N/A	H1 ₃₉ : + Support

FIGURE 1 Research Model



APPENDIX:

This questionnaire helps you to identify your personal approach to getting involved with a new business. Please CIRCLE THE LETTER (a) OR (b) TO SHOW THE ANSWER WHICH DESCRIBES YOU MOST CLOSELY.

Arrangement Conditions

R1 - Protectable Idea

- 14. My new venture is/will be:
 - (a) protected from competition by patent, secret technology or knowledge
 - (b) based on a product or service with no "barriers to entry"
- 35. My new venture is/will be:
 - (a) protected from competition by franchise or other territory restrictions
 - (b) based on a product or service which may experience a lot of competition within a territory

R2 - Resource Access

- 36. I could:
 - (a) raise money for a venture if I didn't have enough
 - (b) provide an investor with a lot of very good ideas for a new venture
- 45.* I:
 - (a) can often see opportunities for my plans to fit with those of other people
 - (b) rarely find that results match what I expect

R3 - Resource Possession

- 3.** I have more highly developed contacts in the:
 - (a) new venture area specifically
 - (b) community generally
- 8. I own assets such as:
 - (a) proprietary technology, patents, or an operating business
 - (b) mutual funds, real estate, or savings accounts
- 18. I presently:
 - (a) control acquisition or expansion funds in an ongoing business, or have my own funds available for venturing
 - (b) will need to raise financing for my venture from third parties
- 20. In the last 3 years:
 - (a) the size of the pool of people and assets I control has grown
 - (b) I have not extended my business control over people or assets

R4 - Venture Specific Skills

- 47. I am very:
 - (a) good at a specialty that is in high demand
 - (b) well-rounded, with broad expertise in a variety of areas

Willingness Cognitions

W1 - Seeking Focus

- 33. Would you say you are more:
 - (a) action oriented
 - (b) accuracy oriented

- 37. Do you want things:
 - (a) open to the possibilities
 - (b) settled and decided
- 38. I have:
 - (a) enormous drive, but sometimes need others' help to complete projects
 - (b) a high respect for service, generosity, and harmony
- 41. Are you more comfortable in:
 - (a) new situations
 - (b) familiar territory

W2 - Commitment Tolerance

- 28. If you had additional money to put to work, would you put it into a venture:
 - (a) where you have a "say," even if there is no track record
 - (b) managed by those you trust, who have a proven track record
- 31. I don't mind:
 - (a) being committed to meet a regular payroll if it means that I can have a chance at greater financial success
 - (b) giving a little of the value I create to the company that hired me
- 32. I am looking for a:
 - (a) place to invest my resources
 - (b) better way to manage my resources

W3 - Opportunity Motivation

- 7. When investing in a new venture, I think it is worse to:
 - (a) wait too long, and miss a great opportunity
 - (b) plunge in without enough information to know the real risks
- 12. Is it worse to:
 - (a) waste your time thinking over an opportunity
 - (b) commit time and money to a cause that may not succeed

Ability Cognitions

- A1 Venture Experience (relabeled "Ability/Opportunity Fit")
- 4. If asked to give my time to a new business I would decide based on how this venture fits:
 - (a) into my past experience
 - (b) my values
- 42. I feel more confident:
 - (a) that I know a lot about creating new ventures
 - (b) in my overall business sense
- 44. When I see a business opportunity I decide to invest based upon:
 - (a) how closely it fits my "success scenario"
 - (b) whether I sense that it is a good investment

48.*** I often:

- (a) see ways in which a new combination of people, materials, or products can be of value
- (b) find differences between how I see situations and others' perspective

A2 - Venturing Diagnostic Ability

- 9. When confronted with a new venture problem I can:
 - (a) recall quite vividly the details of similar situations I know about
 - (b) usually figure out what to do, even if it is by trial and error

- 11.*** When someone describes a problem with a new business I:
 - (a) recognize key features of the problem quickly, and can suggest alternatives from examples I can cite
 - (b) use my instincts to suggest questions which should be asked to solve the problem
- 19. New ventures, small business, and entrepreneurship:
 - (a) are distinctly different disciplines
 - (b) have much in common, especially the need for sharp guesswork
- 27. I am more:
 - (a) aware of many new venture situations; some which succeeded, and others which failed, and why
 - (b) familiar with my own affairs, but keep up on business in general
- A3 Venture Situational Knowledge
- 16. It is more important to know about:
 - (a) creating new ventures
 - (b) business in general staying diversified
- 29. New venture success:
 - (a) follows a particular script
 - (b) depends heavily on the pluses and minuses in a given situation
- 40.*** The new venture stories I recall:
 - (a) illustrate principles necessary for success
 - (b) are a telling commentary on the foibles of human nature which can rarely be predicted

Note. *Loaded on "Resource Possession", ** Removed from analysis due to mixed loadings and loading higher on an unintended construct. *** These items formed a unique factor labeled "Opportunity Recognition"