Entrepreneurial Risk Taking: Influences of Culture, Education and Personality with

Evidence from a Multi-Country Study

Type of Submission: Symposium

Subject: Entrepreneurship, Risk Taking and Decision Making

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ENTREPRENEURIAL RISK TAKING: INFLUENCES OF CULTURE, EDUCATION AND PERSONALITY WITH EVIDENCE FROM A MULTI-COUNTRY STUDY

Abstract

Purpose – The purpose of the present study, which is a part of a larger cross-cultural study, was to (a) propose and test a conceptual model relating to effect of entrepreneurial risk taking behavior on decision making; (b) examine potential antecedents of risk taking—specifically cultural values, education and certain individual factors that influence risk taking and (c) empirically test the mechanism (mediation/moderation) by which these factors affected the relationship between risk taking and sound decision making.

Design/methodology/approach – For testing the mediation and moderation hypotheses we used Structural Equation Modeling and moderated regression analyses respectively.

Findings, Limitations and Future Research – To be presented and discussed during the 12th International DSI meting on July 2013.

Keywords – Entrepreneurship, Decision-making; Risk taking; Culture, Personality, China, Philippines, United States.

Paper type – Research paper in progress.

INTRODUCTION

Entrepreneurial risk taking is indispensable in several fields such as creativity, entrepreneurship etc. In spite of the fact that the consequences of risk taking can sometimes be catastrophic, humankind must continue to take calculated risks if it is to progress. Risk taking in its simplest form may be defined as involving actions taken when the consequences or probabilities of outcomes are unknown or only partially known. A review of the extensive literature reveals numerous references to the risk taking nature of individuals. There are now several validated scales which measure risk taking and various forms of the construct such as global risk taking, risk orientation at work, risk attitude and domain specific risk taking. Studies have provided empirical evidence that risk taking is an important predictor of creativity in different domains including entrepreneurship and difficult sports such as rock climbing. Following is a brief description of the role played by risk taking in entrepreneurship which is closely associated with creativity and decision making.

RISK-TAKING AND DECISION MAKING

The success of most enterprises depends on the capability of their leaders to evaluate risks and decide which path to pursue. Uncertainty has two components, risk and ambiguity, and decision makers' ability for tolerance of ambiguity and risk influence their choices.. Successful high risk decision makers consistently tend to see more opportunities in risky situations and higher risk preference manifests itself in greater confidence in their decision.

Sim Sitkin and Amy Pablo, identified three groups of factors that influence a decision maker's choice of a more or less risky response to a problem: characteristics of the individual

decision maker, characteristics of the organizational context and characteristics of the problem itself. Specifically, they discuss nine key predictors of risk behavior—three individual characteristics: risk preferences, risk perceptions, and risk propensity; four organizational characteristics which directly have an impact on individual behavior: group composition, cultural risk values, leader risk orientation, and organizational control systems; two problem-related characteristics: problem familiarity and problem framing. Decision makers are strongly encouraged to take calculated risks, as incorrect decisions may bring a corporation or the entire economy tumbling down, as occurred in the high leveraged risk taking decisions made at bankrupted companies such as Lehman Brothers and AIG. To foster risk taking it is of pivotal importance to understand the various factors that have an effect on this construct. Let us begin with the basic debate about whether risk taking is situational or a trait, followed by a brief review of internal factors such as intrinsic motivation, demographics and external factors such as culture, group dynamics etc.

Every coin has two sides—hence it is important to understand the flip side of risk taking. Undoubtedly risk taking has its benefits, but there are several factors which must be taken into account before leaping into the unknown. First, the decision should be based on accurate information; past knowledge or prior experience, if any, can be extremely useful in gathering more information. Based on this information time should be spent preparing for the worst case scenario. Other factors include but are not limited to the risk-to-benefit ratio; magnitude of impact; whether the effects/consequences of the risk will be experienced by an individual, group, organization or the public; long term and short term impact, etc. When a risk taker takes into account all these factors, basically acknowledging the potential risks of failure, it can be referred

to as a calculated risk, as opposed to a complete lack of knowledge of these factors—taking risks on sheer whim.

There are times when risk takers may become the victims of what is known as a "halo effect"—when one characteristic or just one factor dominates all other factors or the person even unknowingly ignores other factors and focuses on only one factor. For example: The enormous size of the Quebec forest was so strong a factor that it not only seduced the International Telephone and Telegraph (ITT) management into deciding to build a multi-million dollar chemical cellulose mill there without carefully analyzing factors such as political and labor risks in French-speaking Quebec. Lack of formal analysis resulted in a loss of \$600 million on the project.

Additionally it has been found that (a) past success leads to a willingness to take risks; (b) individuals focus on highly favorable outcomes even if there is less probability of them occurring and (c) risk-taking propensity is negatively associated with both the time required to reach a decision and the amount of information upon which the decision was based. With respect to risk taking propensity Ronald Taylor and Marvin Dunnette found that high risk takers make more rapid decisions based on less information, but tend to process each item of information slowly.

Risk taking—Situational or a trait?: Potential Antecedents

Scholars have debated whether risk taking is situation-based or a disposition. Some strongly supported the view that it is the situation that determines a person's risk taking behavior. Daniel Kahneman and Amos Tversky's influential Prospect Theory suggests that how a situation is framed will determine individual risk behavior. Another major component of the amount of

risk individuals will take is their perception of their abilities in the situation. The greater the ability, the greater the level of risk the individual can reasonably tolerate.

Other scholars, however, have long acknowledged that risky decisions are not based exclusively on rational calculations, but are also affected by individual predispositions toward risk. Thus, a stream of research suggests that risk taking is pre-dispositional rather than simply situational. This position is consistent with Big Five personality theory (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism), which suggests that risk propensity is a facet of the trait of extraversion.

Although it may be referred to as a trait, research is still not conclusive and the question remains whether risk taking may be a multi-dimensional construct. There is evidence that other traits and emotions have a positive (increase) or negative (decrease) effect on a person's risk taking behavior. As shown in Table 1, personality variables such as extraversion and openness have a positive impact on risk taking, while neuroticism (emotional instability) agreeableness and conscientiousness make an individual more risk averse. Additionally, individual differences in trait anxiety, worry, and social anxiety were each associated with risk avoidance. There is burgeoning interest in understanding the role played by sensation seeking and some emotions which affect risk taking.

Sensation seeking and Emotions

Researchers identified higher sensation seeking as a personality factor that differentiates risk takers from non-risk takers. Sensation seeking is defined as the need for varied and new experiences, and incorporates willingness to take risks for the sake of those experiences.

Emotions also play a role in risk taking behavior. They act as relevant forms of information, indicating the presence of specific threats to be avoided or benefits to be acquired. Affective states are a temporary experience of mood or emotion, while affective traits are dispositions to have such experiences (positive and negative affect). Positive affect and negative affect increase and decrease risk taking propensity respectively. Counter-intuitively, an interesting study found that emotions such as fear and anger have opposite effects on risk perception. Jennifer Lerner and Dacher Keltner showed that while fearful people tend to be pessimistic and consequently make risk-aversive choices, angry people demonstrated optimistic risk-seeking choices.

Effect of Intrinsic Motivation, Need for Achievement and Self-efficacy

An individual is said to be intrinsically motivated when he or she performs a task due to the sheer fascination of the task itself rather than simply because of its outcomes. Intrinsic motivation is a key ingredient in creativity that has been associated with increased risk taking, which in turn is linked to creativity.

There is a close relationship between risk taking and need for achievement. High need achievers prefer intermediate levels of risk, while low need achievers are more likely to choose extremely low or high levels of risk. Research linking the two constructs can be summarized as follows: Persons high in need for achievement set challenging goals of moderate difficulty, accomplish these goals through effort and skill, take personal responsibility for decisions and are moderate risk takers.

Self-efficacy refers to an individual's belief in his or her own ability to achieve the task at hand and produce the desired result. People with high self-efficacy are likely to fear failure more

and take calculated, as opposed to reckless risks. They are more likely to set themselves challenging goals, expend effort, and persist in the face of adversity.

Other factors affecting risk taking

Research has confirmed that factors such as gender, age, groups and culture affect an individual's risk taking behavior.

Risk taking across Gender and Age

Historically women were stereotyped as conservative and risk-averse, as opposed to males who were considered to have higher risk propensity. One of the reasons was that women were forced to fit into the social typecast of being more conservative than males. However, in the late 1980s the social outlook changed with the number of female employees increasing dramatically and a sizeable increase in the number of female entrepreneurs. Consequently, gender differences in risk taking behavior are assumed to have been comparatively reduced.

The relationship between risk taking and age has received rather less attention particularly in mature adults. Michael Wallach and Nathan Kogan evaluated the risk-taking behavior between college age and older men and women and found that in the older sample both males and females were comparatively more risk averse than their younger counterparts. One of the explanations could be the considerable increase in responsibilities as people get older marriage, children, and financial problems. These responsibilities deter an individual from taking risks that would have been taken earlier in the person's development. Older individuals were found to have lower achievement motivation compared with younger people. Specifically, in an early study carried out by Heinz Heckhausen, a significant drop in many individual's level of achievement motive appears to occur only around or after age 50. As was shown earlier, risk taking is closely associated with need for achievement, which shows a steady decline with age. However, stereotyping should be avoided because there are examples of older individuals taking great risks including Walt Disney who mortgaged his house in order to finish Disneyland.

Risk Taking by Groups

An overwhelming majority of studies provide evidence for understanding the risky shift phenomenon—on average, individuals will privately recommend a greater degree of risk taking after group discussion than these same individuals had privately recommended before the discussion. Roger Brown suggested that group discussion leads the participants to change their individual decisions in the direction of the relevant social-cultural value. This change is explained by the self-image maintenance mechanism, i.e., people tend to consider their own decisions to be more consistent with widely held values than the decisions of similar others. When they discover that some other people's decisions are more consistent with these values than their own, they try to maintain their self-image by changing their decision towards the extremes.

Risk Taking Across Culture

Risk taking is a relatively stable attribute of personality that is learned early in life. Research has highlighted the role played by cultural differences that are apparent in the various assessments of risk made by different individuals and groups. For example, in 2000, Melissa Finucane found that among various American groups whites, in general, were less apprehensive about a set of nominated risks compared with non-whites, with white men being the least apprehensive and non-white women the most apprehensive. This disparity could be attributed to the socio-economic advantage experienced by white men making them less risk-averse compared

to non-whites. Another study found that Chinese people were less risk-averse than Americans. This could not be attributed to the fact that China and U.S.A. are very different in the individualistic-collectivistic continuum, with China being a very collectivistic culture and U.S.A. a highly individualistic country. Collectivism refers to a society where social and individual ties are strong, with people being part of strong cohesive groups while individualism entails looser ties between individuals so independence is stressed. Elke Weber, Christopher Hsee and Joanna Sokolowska explained "collectivism acts as implicit mutual insurance against catastrophic losses" (1998, p. 174). Furthermore, they pointed out that although people from collectivistic cultures may be less risk-averse to material or financial risks, this will not be true for social risks, as social networks are given immense importance in such cultures.

Another study conducted by Larry Cummings, Donald Harnett and Owen Stevens, compared risk-taking behavior in five regional clusters with reported scores on a scale of 16-48 (with lower scores indicating risk taking and higher scores depicting risk aversion). Americans exhibited the highest tendency towards risk taking, with the lowest score (31.9) followed by Spain (33.4), Greece (35.6), Scandinavia (35.7), and Central Europe (35.8). In addition to culture, risk taking may be affected by situational differences such as the countries' present economic, social and political environment.

Further research is required in the field of risk taking. Researchers have traditionally focused on the psychological and demographic characteristics that discriminate between risk takers and controls; however considerable heterogeneity may exist within risk taking populations. Moreover, it is important to note that people may not be exclusively classified as

risk takers and non-risk takers but may be selective risk takers, either depending upon the goals' value or some other factor affecting their choice.

ENTREPRENEURIAL EDUCATION

Understanding what drives entrepreneurship remains among the most important questions being asked in management research. Specifically: Does exposure to a business education drive the intent to start a business? What are the factors affecting entrepreneurial education?

Following Zhao et al. (2005), we examined the degree to which students perceived that they had learned about four critical skills needed by entrepreneurs: (1) recognizing opportunities for new business, (2) evaluating opportunities, (3) starting a business, and (4) organizational entrepreneurship. The panel will provide detailed information and discuss differences in entrepreneurial education among Chinese, Filipino, and US college students. The focus will be on the instructional style, other innovative ways of instruction such as service learning which greatly helps pedagogy and enhances student learning specifically in the field of entrepreneurship.

ENTREPRENEURIAL INTENT: INFLUENCE OF CULTURAL VALUES

Entrepreneurial intent (EI) is one's intent to engage in entrepreneurship. Krueger and Carsrud (1993) suggest that entrepreneurial intent is the "single best predictor" of subsequent entrepreneurial behavior. In other words, cognition precedes and predicts future behavior. Moreover, while the 'brilliant business idea' may be the spark igniting the actual decision to start

a new venture, there is evidence that most entrepreneurs decide to start a business *before* selecting the type of business (Brockhaus, 1987).

General, High Growth, and Lifestyle Entrepreneurs

Entrepreneurial intent is probably not a single construct. While it is certainly possible to tap into what might be called "general entrepreneurial intent," some variations should also be considered. General entrepreneurial intent is one's intent to start one's own business or become self-employed, driven by both a desire for autonomy and an expectation of economic gain. A second type of entrepreneurship has been called "high growth," which corresponds to one's intention to acquire or start a business and rapidly grow it, perhaps into an international business, an industry leader, or a public company through an initial public offering (Siebert & Hills, 2005; Hmieleski & Corbett, 2006). We conceptualize a third type of entrepreneurial intent, which we call lifestyle EI, or the intent to start a business for the purpose of obtaining autonomy and a certain guality of lifestyle. We borrowed the terminology from John Isaacson (2007), a member of an angel investor group, who pointed out that investors tend to shy away from entrepreneurs who seek autonomy and a certain lifestyle – doing what they truly wish to do – without the need for a high return on investment and without a plan for rapid growth. Our concept of the lifestyle entrepreneur may be similar to what Bird (1998) called a "craftsman entrepreneur," people who begin new ventures in order to use their skills autonomously. McGuire (2009) found evidence of the three robust factors and reliable scales for the measures of each type of EI.

Influence of Culture and Extrinsic Factors on Entrepreneurial Education

Culture is a system of socially constructed meanings, values and beliefs that have resulted from a group's successful dealings with problems of the environment and the complexities of

ordering social relations and integrating people. In addition to symbols, myths, rituals, heroes, and artifacts, shared values differentiate one group from another (Morris et al., 2002). Groups develop and pass on values to new members, such that it is often possible to characterize a group (for example, a society) by the cultural values that its members share. Each individual person has a set of cultural values. While aggregates (properly calculated) of individuals belonging to the same group (say, a nation) do express meaningful generalizations, it is important to note that individual variations exist and may be significant – even within the most cohesive group.

While several studies have been conducted, Morris et al. observed the "notable lack of attention [...of research] devoted to the role of values in successful entrepreneurial endeavors" (2002: 35). Cultural values have been found to predict several entrepreneurial outcomes at the societal level, in particular economic creativity and innovation (Shane,1992, 1993, 1995; Guerrero & McGuire, 2001; Williams & McGuire, 2005). Ethnicity and race, which in some cases are associated with cultural values, have been associated with entrepreneurial activity too. For example, Ramachadran and Shah (1999) found significant differences in the size and success rate of new businesses started by members of different ethnic groups in Africa. In the U.S., one study found that African Americans started new businesses at three times the rate of White Americans (Kollinger & Minniti, 2006). Minniti and Bygrave (2003) found significant differences in entrepreneurial rates among ethnic groups within the same society – that is – with similar economic and institutional characteristics. Davidsson and Wilkund (1997) found significant differences in the values of entrepreneurs and non-entrepreneurs, which leads us to expect that such variations in values will be associated with entrepreneural intent.

Using a validated research instrument we measure culture on six dimensions: (1) Doing vs. Being orientation, (2) Determinism vs. Free Will, (3) Power Distance, (4) Uncertainty

Acceptance vs. Uncertainty Avoidance, (5) Individualism vs. Collectivism, and (6) Facework. We will provide a comparative analysis of culture and its impact on learning style and other aspects of education etc from the data collected from the United States, China, Uganda and Philippines. We will then discuss the next steps to be taken to advance the research agenda.

EXPLORING POTENTIAL MEDIATORS AND

TESTING A CONCEPTUAL MODEL

Proactive personality has been the focus of recent research on personality and job success. People with proactive personalities are more likely to express what Crant called proactive behavior: "Taking initiative in improving current circumstances or creating new ones [and] challenging the status quo rather than passively adapting to present conditions" (2000: 436). Proactive personality is a unidimensional personality trait consistently associated with conscientiousness and extraversion, but which explains certain organizational phenomena beyond that explained by the Big Five (Crant, 1996; Crant & Bateman 2000). Research has found proactive personality to be associated with job performance (Crant, 1996); tolerance for stress in demanding jobs (Parker and Sprigg, 1999); leadership effectiveness (Crant & Bateman, 2000); participation in organizational initiatives (Becherer and Maurer (1999) , and work team performance (Kirkman & Rosen, 1999).

It should be noted that many researchers have abandoned research attempting to find personality or other traits associated with entrepreneurship, noting that traits alone cannot explain why people engage in entrepreneurship or whether they will be successful doing so. While we accept that in and of themselves traits are inadequate predictors, we believe that

together with other variables (such as education in entrepreneurship), traits such as proactive personality can help explain who feels driven to become an entrepreneur. Specifically, not all individuals perceive opportunity in the same environment, and even among those who perceive an opportunity, not all take advantage of it. We believe that individuals with proactive personalities are more likely seize opportunities once perceived.

Crant (1998) found that proactive personality predicted variations in entrepreneurial intention in a study of 181 students, above and beyond variance explained by gender, education, and having an entrepreneurial parent. Finally, Becherer and Maurer (1999) found that proactive personality was highest among small company presidents who started their own businesses, followed by presidents who had purchased the business, and then those who had either inherited it or who managed but did not own it.

In the present study we will specifically focus on the role personality plays in entrepreneurial education. Furthermore the panel will discuss a proposed and tested conceptual model on entrepreneurial intent of students being carried out at three universities in China, the Philippines, and the United States. The Model which included factors based on the extant literature, aimed at providing insight into the effect of proactive personality, extrinsic and intrinsic factors such as motivation, entrepreneurial self-efficacy on the three manifestations of entrepreneurial intent..

METHOD

The study is part of a larger international research project on decision making across several countries. Our sample is comprised of undergraduate and graduate students of business administration between the ages of 17 and 27 from China, Philippines, and the United States.

Since we had collected a large pool of student data from many countries with varying sample sizes and educational backgrounds, we decided to use a two step approach to select our sample for this study. First, we selected the four countries with the largest students sample sizes. Secondly, we used age as a selection criterion and included only student respondents who were 27 years of age or younger in our four-country sample. We used 27 as the cut-off age because we wanted to examine the decision-making skills, which educators believe is partially shaped by a college education in business. We believe that education would most likely have an effect on younger students rather than older students, since the latter bring more "noise" such as experience, maturity, and the like, to the relationship.

We distributed two surveys to graduate and undergraduate students at three universities in China, Philippines, and USA. Completion of surveys was voluntary. The first survey which we referred to as the National Culture (NC) survey collected self reports of antecedents of risk taking behavior and cultural values for the larger research project and except for the demographic data it provided was not used in the present study. The second survey—Risk Taking and Decision-Making (RTDM) collected self reports on our criterion variables. Demographic data (age, sex, year in college, work experience, etc.) were collected on both surveys; in case of discrepancy or missing data, the response on the RTDM served as the default.

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