

Entrepreneurial postures and psychological traits: the sociological influences of education and environment

Donatus A. Okhomina
Fayetteville State University

ABSTRACT

Sociological influences are important factors in the success of an entrepreneurial venture. Sociological influences such as level of education and supportive environment may have moderating influences on the relationships between psychological traits and entrepreneurial styles. A cross-sectional study was conducted among entrepreneurs in a capitol city situated in a Southern Metropolitan Statistical Area (SMSA).

Results of the study support significant positive relationships between psychological traits and entrepreneurial styles. Findings also suggest that level of education and supportive environment moderate the relationships of psychological traits and entrepreneurial styles. Overall, research findings have a number of theoretical and managerial implications. For example, venture capitalists, management practitioners, and other business professionals who are involved in high risk ventures may employ this entrepreneurial model as a useful tool to assess entrepreneurial capabilities, managerial tendencies that may improve return on investment relative to human capital. Also, it may be a useful tool for selecting team members for new business start ups, and evaluating applicants for intrapreneurship positions in the corporate world. Another implication is in the area of entrepreneurship pedagogy, linking the relationship between psychological traits and entrepreneurial styles could be used as a technique for identifying students for entrepreneurial careers. In addition, these findings also indicate that education may enhance entrepreneurial success relative to the nourishment of competencies such as innovativeness, proactiveness, risk taking behavior and competitive aggressiveness.

Keywords : Entrepreneurial Styles, Education, Supportive Environment, Psychological Traits

INTRODUCTION

The study of entrepreneurship is a multidimensional process that calls for further and continuing research studies. Prior research studies have been filled with inconsistency and controversy relative to the appropriate definition of an entrepreneur and the relevance of personality traits study in entrepreneurship (Beugelsdijk 2007; Jaafar & Abdul-Aziz 2005; Aldrich and Martinez 2001; Gartner 2001; Lee and Peterson 2000; Lyon, Lumpkin & Dess 2000; Shane & Venkataraman 2000; Aldrich and Kenworthy 1999; Busenitz & Barney 1997; Lumpkin & Dess 1996; Gartner 1988, Carland et al. 1984; Cole 1969; Knight 1921).

The personality traits approach to entrepreneurship has been criticized by a number of researchers as unsatisfactory and questionable (Gartner, 1988; Aldrich & Zimmer, 1986, Low & Macmillan, 1988) in explaining entrepreneurial behavior and performance. They concluded that there are no personality characteristics that predict who will attempt to, or be, a successful entrepreneur. As Low and MacMillan (1988, p. 148) stressed, entrepreneurs tend to defy aggregation. They reside in the tails of the population distribution; and though they are expected to differ from the mean of the society, the nature of their differences is not predictable. As a result, it seems that any attempt to profile entrepreneurs solely along the personality characteristics may be overly simplistic. In light of the aforementioned criticism including the suggestion made by Gartner (1988, p. 57) and Vesper (1980) that entrepreneurship should be analyzed from the perspective of what an entrepreneur does and not what he is, and that creation of an organization is a complex process and the outcome of many influences. Therefore, the dual purpose of this empirically based study is first, to explore whether psychological traits –need for achievement, locus of control, tolerance for ambiguity, and risk taking propensity are correlates of entrepreneurial postures. Second, whether sociological factors such as level of education and supportive environments moderate the relationships between entrepreneurial postures and psychological traits.

LITERATURE REVIEW

Carland et al. (1984), in an attempt to provide answers to the questions that: 1) if entrepreneurs exist as entities distinct from small and large organizations and 2) if entrepreneurial activity is a fundamental contributor to economic development, on what basis may entrepreneurs be separated from non-entrepreneurial managers in order for the phenomenon of entrepreneurship to be studied and understood? After reviewing literature of small business and entrepreneurship and using Schumpeter's work (1934), they defined an entrepreneur "as an individual who establishes and manages a business for the principal purposes of profit and growth. The entrepreneur is characterized principally by innovative behavior and will employ strategic management practices in the business" (p. 158). This theoretical piece distinguished the entrepreneur from a small business owner. Carland et al. also defined a small business owner as "an individual who establishes and manages a business for the principal purpose of furthering personal goals. The business must be the primary source of income and will consume the majority of one's time and resources. The owner perceives the business as an extension of his or her personality, intricately bound with family needs and desires". This definition recognized the overlap between small business owner and entrepreneur but provided additional support to Schumpeter's characterization of entrepreneurship as innovation oriented.

Entrepreneurial Postures

Entrepreneurial organizations as defined by Covin and Slevin (1991, p.2) are organizations with entrepreneurial postures. Organizational postures are organizations which engage in product-market or technological innovation, risk taking behavior, and proactiveness, and these particular behavioral patterns are recurring. These patterns pervade the organization at all levels and reflect the top managers' overall strategic philosophy on effective management practice. Covin and Slevin (1989); Ginsberg (1985); Lumpkin and Dess (1996); Morris & Paul (1987); Schafer (1990) advanced Schumpeter's (1934, 1942) definition and they defined innovativeness as the firm's propensity to engage in new idea generation, experimentation, and research and development activities. This includes the development and enhancement of products and services and new administrative techniques and technologies for performing organizational functions. Lumpkin and Dess (1996) categorize innovation as either product-market or technological. Miller and Friesen (1978) suggest that product-market innovation focuses on product design, market research, and advertising and promoting. Maidique and Patch (1982) suggest that technological innovation is comprised of product and process development, engineering, research, and an emphasis on technical expertise and industry knowledge.

Venkatraman (1989) suggests that proactiveness refers to processes aimed at anticipating and acting on future needs by seeking new opportunities, introducing new products and brands ahead of competition; and strategically eliminating operations that are in the mature or declining stages of the life cycle. Thus, proactiveness requires a desire and willingness to think and initiate actions to answer future situations and threats. Proactiveness is critical to entrepreneurial success because it suggests a forward-looking perspective that is accompanied by innovative activity.

The concept of risk taking behavior has long been associated with entrepreneurship. Early definition of entrepreneurship centered on the willingness of entrepreneurs to engage in the calculated business-related risk (Brockhaus 1980). In the 19th century, John Stuart Mill argued that risk-taking was a paramount attribute of entrepreneurs. This view of entrepreneurs as risk takers continued to gain support till the twentieth century. McClelland (1961, p.210) accentuated the support with his postulation that "Practically all theorists agree that entrepreneurship involves, by definition, taking risks of some kind". Risk taking appears to be one of the most distinctive features of entrepreneurial behavior, since creating new ventures is by definition a risky business.

Linking the relationship between psychological traits and entrepreneurial postures is imperative for theoretical and empirical reasons, because entrepreneurs with a certain psychological traits may have a tendency to exhibit certain degree of entrepreneurial posture and showing this tendency may provide benefits to the organization. In prior research studies, achievement need, tolerance for ambiguity, risk taking and locus of control were analyzed with respect to entrepreneurial characteristics and were identified as correlates of being or desiring to be an entrepreneur (Ahmed, 1985; Begley & Boyd, 1987; Bonnett & Furnham, 1991). Prior research findings related to psychological traits have been corroborative and thus this study is aimed at providing additional insights and understanding to the relationship between psychological traits and entrepreneurial postures. In the subsections that follow, some of the most researched psychological traits will be discussed and how they are related to entrepreneurial postures.

Need for Achievement

In McClelland (1961), *The Achieving Society*, the need for achievement trait has been empirically linked to entrepreneurial activity. The need for achievement is defined as a tendency to choose and persist at activities that hold a moderate chance of success or a maximum opportunity of personal achievement satisfaction without the undue risk of failure. From diverse samples of business executives, the author's findings revealed that senior marketing managers have the highest need for achievement. He posited that needs are learned and therefore culturally, not biologically determined; and some cultures produced more entrepreneurs because of the socialization process that creates a high need for achievement.

In a longitudinal analysis of the need for achievement scores of college freshmen, McClelland (1965) concluded that a high need for achievement is a predictor of entrepreneurship and is based on influences of childhood and adult training and experiences. McClelland's work was initially influenced by Murray's (1938) studies in the development of his Need for Achievement Theory (Fineman, 1977). McClelland shared with Murray the belief that analysis of fantasy is the best way to assess motives, which are primarily based on unconscious state. Through the usage of the Thematic Apperception Test (TAT), which requires the writing of imaginative stories by subjects in response to a set of pictures, the stories were content analyzed for achievement imagery to obtain an n Ach score by the author. Through the correlation studies in the laboratory, McClelland determined that those high in n Ach, as measured by the TAT, tended to exhibit an original five behavioral traits and was reduced to three: (1) Takes personal responsibility for finding solutions to problems; (2) Sets moderate achievement goals and takes calculated risks; and (3) Wants concrete feedback regarding performance. McClelland conducted a number of studies demonstrating that high n Ach and the subsequent manifestation of the above behaviors correlated strongly with entrepreneurial success (McClelland, 1961, 1965a).

A number of studies suggest that need for achievement is higher in company founders, compared to managers (Begley & Boyd, 1987; Miner, Smith & Bracker, 1989). It is also related to company growth (Miner et al. 1989). Such findings that relate the level of need for achievement of the founders and the financial growth of the organization may come from a relationship between the psychological traits of founders and the levels of entrepreneurial orientation they exhibit.

Internal Locus of Control

Rotter 1966 defined Locus of Control as an individual's perception about the underlying main causes of events in his/her life. Or, more simply: Individual believes that his/her behaviour is guided by his/her personal decisions and efforts (internal); or as unrelated to his or her actions and is guided by fate, luck, or other external circumstances (external). People with internal locus of control believe that they can control what happens in their lives. On the other hand, people with external locus of control tend to believe that most of the events in their lives result from luck, being at the right place at the right time, and the behaviors of powerful people. Research indicates that individuals with internal locus of control often have a more expressed need for achievement (Brockhaus 1982; Lao 1970; Gurin et al 1969).

In an empirical study conducted by Khan and Manopichetwattana (1989) they addressed the proposition whether the characteristics of innovative and non-innovative small firms have

significant differences. Their sample was comprised of 50 manufacturing small businesses in the Texas area using cluster and correlational analyses to analyze the data. They found a positive relationship between internal locus of control and innovation. Boone, Debrabander and Van Witteloostujin (1996) empirical research investigation focused on the furniture industry with a sample comprised of small firms and family owned small businesses, they were interested in getting at whether chief executive officers or top management team internality had a positive effect on organizational outcomes. Replicating previously tested hypotheses, they found internal locus of control to be associated with company performance. Their findings corroborated prior study findings of (Begley and Boyd 1987; Bonnett and Furnham 1991, Nwachukwu 1995) that internal locus of control is an important entrepreneurial psychological trait.

Tolerance for Ambiguity

Budner (1962) defined tolerance for ambiguity as the “tendency to perceive ambiguous situations as desirable,” whereas intolerance for ambiguity was defined as “the tendency to perceive ... ambiguous situations as sources of threat” (p. 29). An ambiguous situation is one in which the individual is provided with information that is too complex, inadequate, or apparently contradictory (Norton, 1975, p. 607). The person with low tolerance of ambiguity experiences stress, reacts prematurely, and avoids ambiguous stimuli. On the other hand, a person with high tolerance of ambiguity perceives ambiguous situations/stimuli as desirable, challenging, and interesting and neither denies nor distorts their complexity of incongruity.

Frenkel-Bruswik (1948) reported a study comprised of 100 adults and 200 California children from ages 9 to 14 years old in which the researcher looked at their attitudes to ethnic prejudice and argued that tolerance for ambiguity is to be conceived as “a general personality variable relevant to basic social orientation” (p. 268). Entrepreneurial managers are generally believed to tolerate more ambiguity than conservative managers because entrepreneurial managers confront less-structured, more uncertain set of possibilities (Bears 1982), and actually bear the ultimate responsibility for the decision (Gasse 1982, Kilby 1971).

Theoretically, people who best tolerate ambiguity are those who obtain superior results if their strategic objective is to pursue growth. Entrepreneurs who seek to increase market shares in their respective industries face more uncertain phenomenon than those who seek to increase profitability. Because the strategy utilized to implement increase in market share is based on conditions of uncertainty, which requires a greater tolerance of ambiguity. Thompson (1967) stipulates that in a determinist world, the higher the number of external dependencies faced by firms, the greater the degree of uncertainty.

Dollinger (1983) with a sample size of 79 entrepreneurs using Budner’s scale, he found that entrepreneurs scored high in the tolerance for ambiguity test. The results showed that tolerance for ambiguity trait is positively related to entrepreneurial activity. Gupta and Govindarajan (1984) data from 58 strategic business units revealed that greater marketing/sales experience, greater willingness to take risk, and greater tolerance for ambiguity, on the part of strategic business unit general manager, contribute to effectiveness in the case of “build” strategic business units; but hamper it in the case of “harvest” strategic business units. Carland and et al. (1989) research revealed that people who best tolerate ambiguity are also the most innovative. Tolerance for ambiguity is reported to relate to personal creativity (Tegano, 1990) and the ability to produce more ideas during brainstorming (Comadena, 1984).

These findings suggest that creativity and innovativeness requires a certain degree of tolerance for ambiguity. The ability to tolerate ambiguous situations may also be positively related to the risk-taking behavior of the entrepreneur. Risk-taking requires a certain degree of tolerance for ambiguity. In addition, research indicates that individuals with intolerance for ambiguity tend to perceive higher degrees of risk under the same circumstances (Tsui 1993). Proactive entrepreneurs do not abide by traditional ways of the status quo, but they continually question it in an attempt to improve and devise better operational methods and managerial styles.

Risk Taking Propensity

The perceived probability of receiving rewards associated with the success of a situation that is required by the individual before he or she will subject himself/herself to the consequences associated with failure, the alternative providing less reward as well as less severe consequences than the proposed situation” (Brockhaus, 1980, p.513). The usual interpretation of a risk taker is someone who in the context of a business venture pursues a business idea when the probability of succeeding is low (Smith-Hunter, Kapp, and Yonkers, 2003). In a study conducted by MacCrimmon & Wehrung (1990) drawing on a sample of five hundred chief executives of businesses to determine the validity of common stereotypes of who takes risks and who avoids risks using factor and linear discriminant analyses, the researchers found that the most successful executives were the biggest risk takers; the most matured executives were the most risk averse.

Begley and Boyd (1987) found that risk taking had a curvilinear relationship with performance in entrepreneurial firms. Their findings suggested that entrepreneurs exhibiting moderate levels of risk taking would outperform those exhibiting either very high or very low levels of risk. The researchers concluded that “risk taking has a positive effect on return on asset” (p. 89). Palich and Bagby (1995) found that entrepreneurs tend to categorize business situations as possessing less risk than non-entrepreneurs. In other words, “entrepreneurs may not think of themselves as being any more likely to take risks than non-entrepreneurs, but they are nonetheless predisposed to cognitively categorize business situations more positively” (p. 426).

Busenitz (1999) also argued that entrepreneurs tend to view situations more favorably than non-entrepreneurs, and his results indicated that entrepreneurs do indeed use representativeness more in their decision making and are more overconfident than managers in large organizations” (p. 325).

In a study conducted by Xiao, Alhabeeb, Hon and Haynes (2001) using data from the 1995 Survey of Consumer Finances with an approximate sample size of three thousand to examine risk tolerance level of family business owners and non-owner’s of business; found that family business owners were more tolerant than non-business owners.

In an earlier study that was conducted by Miller and Toulouse (1989) with a sample comprised of 97 firms from the province of Quebec in which the authors were interested in determining the relationships that three aspects of the chief executive’s (CEO) personality have with the strategies, structures, decision-making methods and performance of their firms. They found that chief executive officer’s flexibility was associated with niche strategies, simple, informal structures, and intuitive, risk-embracing decision-making.

Entrepreneurial risk behavior has been examined in the literature by both the personality trait approach (McClelland 1961, 1965; Brockhaus 1980, 1982; Brockhaus and Horowitz 1986; Sexton & Bowman 1985; Begley and Boyd 1987) and cognitive approach (Kirzner 1973, 1979;

Bird 1988; Palich and Bagby 1995; Busenitz 1999). . There is yet an agreement among researchers and practitioners on explaining entrepreneurial risk behavior in a parsimonious manner. The body of literature on entrepreneurship suggests the importance of risk-taking behavior in any entrepreneurial activity; but the level of risk-taking accepted for different kinds of entrepreneurs in different industries and non-entrepreneurs remains an illusion

Education

A number of studies have argued that education facilitates entrepreneurial success by providing for the nourishment of competencies such as innovativeness and ability to acquire resources. These competencies are regarded as imperatives to success in many entrepreneurial ventures (Bird 1993; Ronstadt 1984). Notably, in highly technical industries, a specified amount of education may be required as a prerequisite for employment.

. Borjas (1987) study of self-employment experience of immigrants and native-born using both 1970 and 1980 Census data, analyses revealed that education has a positive and significant impact on self-employment rates. In all samples, the higher the education levels, the higher increase in the individual's ability to provide a service to those persons who may desire it; or perhaps that higher education levels increase the organizational or managerial skills of workers.

Vesper (1980) pointed out that the more education an entrepreneur has had in business (especially small business) the more likely the entrepreneur will succeed in the current venture. Vesper (1980) asserts that prior mental programming in the form of both formal education and experience in the particular line of work of the new venture repeatedly crops up as correlated in generally positive ways with odds of success in studies of startups (p. 32). The level of technical and business skills is also a major factor in successfully starting and managing a small business (Davidson 1991; Vesper 1983). In Davidson's (1991) Sweden study, the findings also suggested that business-related experience and business education were highly correlated with the entrepreneur's ability to start and manage a business.

Lerner, Brush and Hisrich (1995) conducted a study to determine which factors affecting performance of Israeli women entrepreneurs using a sample of 220 businesses. They reported that human capital and business skills (education) have significant explanatory power on performance. Their findings also revealed that a majority of the entrepreneurs were highly educated with college and graduate degrees. The research effort of Bird (1993) showed a trend toward higher educational attainment among entrepreneurs. Based on the aforementioned literature review, the following hypotheses are formulated.

Supportive Environment

Supportive environment refers to a combination of factors in the environment that play a role in the development or nurturing of entrepreneurship and entrepreneurial activities. Empirical studies on entrepreneurial environments suggest that societies that keep rules and regulations at minimum, offer tax incentives provide training and counseling services to start-up entrepreneurs, increase the likelihood of new venture creation (Dana 1987; 1990). Factors such as the availability of financial resources, location in large urban areas, and the presence of universities for training and research are also suggested to be very critical in increasing the rate and nurturing of new venture developments (Pennings 1982). It is also suggested that entrepreneurs need

support services in preparing business plans, getting loans and business assistance from incubators (Hoy et al. 1991).

Aldrich and Wiedenmayer (1993) suggest that the sociopolitical environment may be so powerful to create or destroy entrepreneurship in a country. Covin and Slevin (1989) also consider environmental factors to be a reasonable start point for any analysis of entrepreneurship. They alleged that external variables moderate the relationship between entrepreneurial posture and firm performance. Covin and Slevin (1989) also pinpointed the idea that the external environment can be operationally defined in terms of forces or elements that are too numerous to incorporate in a specific sense into a single model.

- H1 Need for Achievement is positively related to Entrepreneurial Postures
- H2 Locus of Control is positively related to Entrepreneurial Postures
- H3 Tolerance for Ambiguity is positively related to Entrepreneurial Postures.
- H4 Risk taking propensity is positively related to entrepreneurial postures
- H4a Supportive Environment moderates the relationship between Need for Achievement and Entrepreneurial Postures.
- H4b Supportive Environment moderates the relationship between Internal Locus of Control and Entrepreneurial Postures.
- H4c Supportive Environment moderates the relationship between Tolerance for Ambiguity and Entrepreneurial Postures.
- H4d Risk Taking Propensity is positively related to Entrepreneurial Posture
- H5a Level of Education moderates the relationship between Need for Achievement and Entrepreneurial Postures.
- H5b Level of Education moderates the relationship between Internal Locus of Control and Entrepreneurial Postures.
- H5c Level of Education moderates the relationship between Tolerance for Ambiguity and Entrepreneurial Postures.
- H5d Level of Education moderates the relationship between Risk taking Propensity and Entrepreneurial Postures.

Research Instrument

The sampling frame for this study was a mailing list of the registered small business owners situated in a “deep” south Standard Metropolitan Statistical area (SMSA). Three hundred self-reported questionnaires with a self-addressed, stamped return envelope were mailed to the randomly selected business owners from the original five hundred and fifty (550) registered population lists. A total of ninety (90) questionnaires were returned, completed and usable, representing a 30.percent response rate of the 300 mailed questionnaires

Need for achievement was measured using a three-item; 7-point Likert type scale that was originally developed by Edwards (1959) to measure achievement motivation. The advantages of using EPPS over the other scales are: (1) Entrepreneurs scored higher than the norm on the achievement scale (Hornaday and Bunker 1970; Hornaday and Aboud 1971; Decarlos and Lyons 1979; Begley and Boyd 1986). (2). It is easier to score and administer than the other scales (Fineman 1977). (3). It has a higher internal consistency rate (.74) and stability across time than the projective scale (Fineman 1977). (4). Unlike the other scales, there is a consistent convergent validity of the measure in prior entrepreneurship research (Hornaday and

Bunker, 1970; Hornaday and Abdoud 1971; Decarlos and Lyons 1979; Begley and Boyd 1986). The mean score of achievement motivation among respondents was 5.88, which indicated that, on the aggregate, used-car entrepreneurs possess a high level of need for achievement.

Internal locus of control was measured using a four-item, 7-point Likert type scale that was originally developed by Rotter (1966) to measure generalized expectancies. The researcher selected these scale items that are most relevant to entrepreneurs and company owners for space constraint and respondents' convenience. A higher score reflects higher internality of the entrepreneur under study. The four items adopted for this study are: (1a). Many of the unhappy things in people's lives are partly due to bad luck. (1b). People's misfortunes result from the mistakes they make. (2a) The idea that teachers are unfair to students is nonsense. (2b). Most students do not realize the extent to which their grades are influenced by accidental happenings. (3a) I have always found that what is going to happen will happen. (3b). Trusting to fate has never turned out as well for me as making a decision to take a definite course of action. (4a). Becoming a success is a matter of hard-work; luck has little or nothing to do with it. (4b). Getting a good job depends mainly on being in the right place at the right time. These scale items have been reported to have high reliability and validity in a number of studies (Boone, Debrabander and Witteloostuijin 1996; Boone and Debrabander 1993; Boone et al. 1990; Boone et al 1991). Rotter scale remains the most widely used and shortest scale to make use of the forced choices. The scale concurrent, construct and predictive validity remains impressively high (0.60-0.88) with alpha reliability of 0.69-0.76 (Furnham and Steele 1993, p. 452). The mean score of internality among respondents was 5.70, which indicated that, on the aggregate, used car entrepreneurs possess a high level of internal locus of control.

Tolerance for ambiguity was measured using a three -item, 7-point Likert type scale that was originally developed by Budner (1962) to measure tolerance for ambiguity. The scale items selected are most relevant to entrepreneurs and small business owners. These negatively worded items are: (1).It is more fun to tackle a complicated problem than to solve a simple one. (2). Many of our most important decisions are based upon insufficient information. (3). Often the most interesting and stimulating people are those who don't mind being different and original. A higher score reflects a higher tolerance for ambiguity. Budner's scale has an average internal reliability of .49, which seems poor but Budner explained that the nature of the concept itself, the definition of which posits a complex, multidimensional construct provides for low or average reliability. He further asserted that the more complex the construct and the more complex the measure, the lower will the reliability estimate be. The most important advantage of this scale over the others is the freedom from social desirability bias and recognition of the highly complex structure of the concept. In terms of validity, its intercorrelation (0.85) with the other three scales was high enough to suggest that all four scales were tapping on the same dimensions. The prevailing strength of Budner's scale over the others is that, it was designed to measure three dimensions of ambiguity: the complexity, novelty and insolubility of a situation. Budner's scale is a natural choice of measurement instrument for a research study of this nature considering its many attributes. The mean score of tolerance for ambiguity among respondents was 5.24, which indicated that, on the aggregate, used car entrepreneurs possess above average level of tolerance for ambiguity.

Risk taking propensity was measured by employing and adapting Choice Dilemmas Questionnaire (CDQ) instruments. Choice Dilemmas Questionnaire was developed by Wallach and Kogan in 1959 and 1961. The instrument was designed to obtain probability preferences in everyday life situations. In the author's earlier work, subjects were presented with a 12-item

instrument in which each item represented a choice dilemma between a risky and a safe course of action. The subject's selection of the probability level for the risky alternative's success that would make it sufficiently attractive to be chosen thus reflected the deterrence value of failure in a particular decision area (Wallach and Kogan, 1959 and 1961). The same procedure was adopted but only two items from the 12-item questionnaire will be adapted in this study for parsimony, space and subject's convenience. Items from Kogan and Wallach instrument have been extensively used by researchers of risk taking propensity (Brockhaus 1980; Sexton and Bowman 1982, 1983). Wallace and Kogan (1964) reported reliabilities of .53 for the men .62 for the women using odd-even coefficients stepped up by the Spearman Brown formula and considered to be adequate. Thus, Choice dilemmas Choice (CDQ) instrument is the natural and appropriate choice for the present study.

To measure the entrepreneurial posture of the businesses from the perspective of the business owners, a seven point Likert-type scale was employed. An eleven item instruments were selected, the wording of these items was very similar to entrepreneurial posture scales developed and tested for reliability by Khandwalla (1977), Miller (1983), Covin and Slevin (1986, 1989) and Covin and Covin (1990). Subsequent scale enhancement work conducted by Lumpkin (1998) was also consulted to capture distinctions between product/service and process innovativeness. The mean score value of entrepreneurial postures among respondents was 4.60, which indicated that, on the aggregate, used car organizations are entrepreneurial. This result is consistent with previous research studies (Chadwick 1998; Knight 1997; Naman & Slevin, 1993; Covin & Slevin, 1989). Table 1 summarizes the descriptive statistics of the study variables

Descriptive Statistics of Variables

Table 1

STATISTICS	Supportive Environment	Need Achievement	Internal Locus of Control	Tolerance for Ambiguity	Risk Taking Propensity	Entrepreneurial Postures
Mean	5.60	5.90	5.70	5.84	3.90	4.60
Median	5.65	6.00	6.00	5.45	3.50	4.50
Mode	6.10	6.30	6.00	5.45	3.60	4.50
Std. Dev.	1.25	1.25	1.02	1.08	1.03	1.15

Psychological Traits and Entrepreneurial Postures

As can be seen from the correlation table, psychological variables are correlated among each other. This was expected due to the self-report nature of the data, as well as conceptual relationships between psychological traits. The results of Pearson's correlations suggest significant positive correlations between the psychological traits (need for achievement, internal locus of control, tolerance for ambiguity, and risk taking propensity) and entrepreneurial postures (See Table 2)

Correlation Coefficients Table 2

	EP	NARCH	ILC	TA	RTP	LED	SUPENV
EP							
NARCH	.43**						
ILC	.35**	.03					
TA	.42*	-.08	-.25**				
RTP	.33*	-.05	.14				
LED	.40	.34**	.35**	.05	-.00		.47**
SUPENV	.28	.17	.30**	.28**	.06		

** = P < 0.01 level

* = p < 0.05 level

EP = Entrepreneurial Postures, NARCH = Need for Achievement, ILC = Internal Locus of Control, TA = Tolerance for Ambiguity, RTP = Risk Taking Propensity

Hypotheses H1, H2, H3, and H4, were tested employing hierarchical regression analysis. Hierarchical regression is the statistical technique of choice when a single metric dependent variable is presumed related to one or more metric independent variables (Hair et al., 1995). The objective of this statistical procedure is to explain changes in the dependent variable with respect to changes in the independent variables.

Hypothesis #1 posits that need for achievement is positively related to entrepreneurial postures. The results of the regression analysis are shown in Table 3. To control for extraneous influences on the regression equation, the dependent variable (entrepreneurial postures), was first entered and followed by the independent variable (need for achievement). A significant relationship was found ($b = .45, p < .001$), and it explained 29% of the R^2 in entrepreneurial postures. Hypothesis #2 states that internal locus of control is positively related to entrepreneurial postures. Hypothesis #3 states that tolerance for ambiguity is positively related to entrepreneurial postures. Hypothesis #4 states that risk-taking propensity is positively related to entrepreneurial postures. Statistical analyses were performed on the full model (internal locus of control, tolerance for ambiguity and risk taking propensity) employing the hierarchical procedure of SPSS (Morgan and Griego 1998, p. 142). Results showed significant positive relationships between internal locus of control and entrepreneurial posture ($b = .22, p < .05$), and also significant positive relationships between tolerance for ambiguity and entrepreneurial postures ($b = .22, p < .01$), with additional R^2 change of 25% explained in entrepreneurial postures. The positive relationship between risk-taking propensity and entrepreneurial postures was not significant ($b = .17, p < .10$). The result may be attributable to the small sample size and low statistical power.

Table 3**Regression Results: Psychological Traits and Entrepreneurial Postures**

Independent Variables	Beta	SE	F	R ²
Need for Achievement	.450***	.015	13.74	.29
Internal Locus Of Control	.221*	.031		
Tolerance for Ambiguity	.220**	.021		
Risk taking Propensity	.109	.012		
R ²				.54

Adjusted R² = .51

Only standardized regression coefficients are shown

N = 90, *** P < 0.001, ** P < 0.01

Change in R² = .25

Hypothesis 4a – 4d stated that supportive environments may moderate the relationships between psychological traits ((need for achievement, internal locus of control, tolerance for ambiguity, and risk taking propensity) and entrepreneurial postures. The results of the moderated regression analyses are presented in Table 4. The interactions terms of the supportive environments and psychological traits were computed using SPSS by multiplying the supportive environments variable and each of the four sub constructs of psychological traits (need for achievement, internal locus of control, tolerance for ambiguity and risk taking propensity) to ascertain whether the R² of the two products provided incremental explanatory power of entrepreneurial postures. The interactions of need for achievement and supportive environments variables provided incremental R² change of 0.12 at a significance level of p < 0.001. The interactions of internal locus of control and supportive environments variables provided incremental R² change of 0.06 at a significance level of p < 0.01. The interactions of tolerance for ambiguity and supportive environments variables provided incremental R² change of 0.05 at a significance level of p < 0.001. The interactions of risk taking propensity and supportive environments variables provided incremental R² change of 0.03 at a significance level of p < 0.05.

Regression Results: Supportive Environments Moderating the Relationships between Psychological Traits and Entrepreneurial Posture

Table 4

Entrepreneurial Postures (Dependent Variable)	Beta	R²	Changes in R²
Independent Variables			
Need for Achievement	.450***	.290	
Internal Locus of Control	.221*	.110	
Tolerance for Ambiguity	.220**	.102	
Risk-Taking Propensity	.105	.033	
Supportive Environment	.151	.010	
R² 0.54			
Need for Achievement X Supportive Environment	.460***	.412	.120
Internal Locus of Control X Supportive Environment	.224**	.171	.060
Tolerance for Ambiguity X Supportive Environment	.223***	.152	.050
Risk Taking Propensity X Supportive Environment	.110*	.066	.030
		<u>.80</u>	<u>0.260</u>

R² =0.80, Adj. = 0.76
 Change in R² 0.26, *** P < 0.001, ** P < 0.01, * P < 0.05

Overall, the moderated multiple regression results suggest that, the interactions of supportive environment and psychological traits (need for achievement, internal locus of control, tolerance for ambiguity, and risk taking propensity) provided incremental R² change or higher explanatory powers of entrepreneurial posture of twenty six percent as hypothesized in H4a, H4b, and H4c and H4d.

Hypothesis #5a – 5d: Education may moderate the relationships between the psychological sub constructs (need for achievement, tolerance for ambiguity, locus of control, and risk taking propensity) Entrepreneurial Postures. The results of the moderated regression analyses are presented in Table 5. The interactions terms of the levels of education and psychological traits were also computed using SPSS by multiplying the levels of education variable and each of the four sub constructs of psychological traits (need for achievement, internal locus of control, tolerance for ambiguity and risk taking propensity) to ascertain whether the R² of the two products provided incremental explanatory power of entrepreneurial postures. The interactions of

need for achievement and levels of education variables provided negative R^2 change of -0.02 at a significance level of $p < 0.01$. The interactions of internal locus of control and levels of education provided incremental R^2 change of 0.17 at a significance level of $p < 0.01$. The interactions of tolerance for ambiguity and levels of education provided incremental R^2 change of 0.14 at a significance level of $p < 0.001$. The interactions of risk taking propensity and levels of education provided incremental R^2 change of 0.04 at a significance level of $p < 0.01$.

Overall, the moderated multiple regression results suggest that, the interactions of levels of education and three of the four sub constructs of psychological traits (internal locus of control, tolerance for ambiguity, risk taking propensity) provided thirty three percent positive incremental R^2 change or higher explanatory powers of entrepreneurial postures as hypothesized in H_{5b} , H_{5c} , and H_{5d} .

Regression Results: Education Moderating the Relationships between Psychological Traits and Entrepreneurial postures

Table 5

Entrepreneurial Orientation (Dependent Variable)	Beta	R²	Changes in R²
Independent Variables			
Need for Achievement	.450***	.290	
Internal Locus of Control	.221*	.110	
Tolerance for Ambiguity	.220**	.102	
Risk-Taking Propensity	.105	.033	
Levels of Education	.143	.018	
R² 0.54			
Need for Achievement X Levels of Education	.455**	.271	-.020
Internal Locus of Control X Levels of Education	.223**	.281	.170
Tolerance for Ambiguity X Levels of Education	.224***	.243	.140
Risk T. P. X L. of Education	.107**	.075	.040
		0.87	0.33
R² = 0.87, Change in R² 0.33, *** P < 0.001, ** P < 0.01, * P < 0.05			

DISCUSSION

The theoretical underpinnings for this empirical study specified that psychological traits relate positively to entrepreneurial postures, and sociological influences such as, supportive

environments, and levels of education, moderate the relationships between psychological traits and entrepreneurial postures.

Results of the Pearson's correlations provide modest support for positive significant relationships between psychological traits and entrepreneurial postures. The results of the hierarchical regression largely support significant relationships between psychological traits (need for achievement, internal locus of control and tolerance for ambiguity) and entrepreneurial postures. Moderated regression results also support that supportive environments moderate the relationships between psychological traits and entrepreneurial postures as shown in the incremental changes from fifty four percent to eighty percent of variance explained as hypothesized H4_a, H4_b, H4_c, and H4_d.

Moderated regression results of levels of education moderating the relationships of psychological traits and entrepreneurial postures as shown in table 5 provide interaction effects of the incremental changes from fifty four percent to eighty seven percent of variance explained as hypothesized H5_a, H5_b, H5_c, and H5_d. Interestingly, the interaction effects of need for achievement and level of education yielded negative incremental change of two percent of the variance explained, the researcher alludes the result to the strong internal correlation between the attainment of higher education and goal achievement or semblance of level of education and the need for achievement measurement instruments. For example, one of the three instruments employed in measuring the need for achievement is, (1). I will not be satisfied unless, I have reached the desired level, has a good semblance to the instrument of measuring higher education goal. It may also be implied that, the more level of education a person attains, the less drive to succeed in other areas.

While a number of research studies have reported social and environmental factors as necessary conditions for the appearance of entrepreneurship or enhancing firm performance (Sexton & Bowman, 1985; Sandberg & Hofer, 1987; Covin & Slevin, 1989; Bloodgood, Sapienza; & Carsrud, 1995; Dess, Lumpkin, & Covin, 1997; Lumpkin & Dess, 2001), research findings reported herein tend to address a research void by linking sociological factors, such as, supportive environment, levels of education as moderating influences of psychological traits in explaining entrepreneurial postures. Furthermore, majority of the past research findings have converged on the relationship between entrepreneurship and psychological traits with primary focus of distinguishing entrepreneurs from the general population (Ahmed, 1985; Begley & Boyd, 1987; Bonnett & Furnham, 1991; Nwachukwu 1995). In contrast, this research ventured to consider the dimension of entrepreneurial postures as the dependent variable and psychological traits as the predictors. In addition, it provided significant insights into the sociological influences of supportive environment and education on the relationship between entrepreneurial postures and psychological traits. In essence, it lends support to the criticisms advanced by Gartner (1988), Low and MacMillan (1988), Aldrich and Zimmer (1986), psychological traits alone are inadequate in explaining entrepreneurial behavior. Again, please note Gartner (1988) and Vesper (1980) suggestion that the creation of an organization is a complex process and a contextual event, the outcome of many influences. Finally, this is a more robust model for understanding entrepreneurial postures because it incorporates variables from three different levels of analyses, including the individual personality traits, the firm level of entrepreneurial postures, and the sociological factors of environment.

Future data-based research studies addressing psychological traits and sociological influences on entrepreneurial postures should employ a more representative sample from multiple industries with provisions for inter-industry variations in life cycles. The length of the

questionnaire should be significantly reduced to improve the response rate. Because of the dynamic process of entrepreneurship, a triangular approach comprised of the three prevalent approaches including managerial perception employed in this study, resource allocation and longitudinal approaches should be employed in future research to minimize the limitations of these findings.

Overall, these research findings have a number of theoretical and managerial implications. For example, banks, angel investors, venture capitalists, management practitioners, and other business professionals who are involved in risk ventures may employ this entrepreneurial posture model as a useful tool to assess entrepreneurial capabilities, entrepreneurial postures that may improve return on investment relative to human capital. Also, it may be a useful tool for selecting team members for new business start ups, and evaluating applicants for intrapreneurship positions in the corporate world, among others. Another implication is in the area of entrepreneurship pedagogy, linking the relationship between psychological traits and entrepreneurial postures could be used as a technique for identifying students for entrepreneurial careers. Another significant contribution of this study is that the study was conducted with actual entrepreneurs in the service sector. Prior studies have drawn their samples from mostly students, managers and non-entrepreneurs (Twomey 1988; Miner 2000). In addition, the service sector has received very little attention in previous entrepreneurship research, yet it represents one of the fastest growing sectors in the global economy (Zahra et al., 1999).

REFERENCES

- Aldrich, H. E. & Kenworthy, A. (1999). The accidental entrepreneur: Campbellian antinomies and organizational rounding. In J. A. C. Baum, & B. Mckelvy (Eds.). *Variations in organization science: In honor of Donald Campbell*, pp.19-33. Newbury Park, CA: Sage.
- Aldrich, H. E. and Martinez, M. A. (2001). Many are called, few are chosen: An evolutionary perspective for the study of entrepreneurship. *Entrepreneurship Theory and Practice* 25: 41-56
- Aldrich, H. E., & Zimmer, C. (1986). Entrepreneurship through social networks'. In Sexton, D. L. and Smilor, R. W. (Eds.). *The Art and Science of Entrepreneurship*. Cambridge, MA: Ballinger, 3-23.
- Aldrich, H. E. & Wiedenmayer, G. (1993). From traits to rates: An ecological perspective on organizational foundings. In J. A. Katz, & R. H. Brockhaus (eds.). *Advances in Entrepreneurship from emergence, and growth* (145-195) Greenwich, CT: JAI Press
- Bearse, P. J. (1982). A study of entrepreneurship by region and SME size. In K Vesper (ed.). *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College pp. 78-112.
- Beugelsdijk, S (2007). Entrepreneurial culture, regional innovativeness and economic growth. *Journal of Evolutional Economy*, 17, 187-210.
- Begley, T. M. & Boyd, D. P. (1987). Psychological characteristics of associated with performance in entrepreneurial firms and small businesses. *Journal of Business Venturing*, 2: 79-83.
- Bloogood, J. M., Sapienza, H. J. & Carsrud, A. L. (1995). The dynamics of new business startups: Person context, and process. In J. A. Katz, & R. H. Brockhaus (eds.) *Advances in Entrepreneurship, firm emergence, and growth*, (123-144) Greenwich, CT: JAI Press.
- Bonnett, C., & Furnham, A. (1991). Who wants to be an entrepreneur? A study of adolescents

- interested in a young enterprise scheme. *Journal of Economic Psychology*, 12(3): 465-478.
- Boone, C., & DeBrabander, B. (1993). 'Generalized vs specific locus of control expectancies of chief executive officers'. *Strategic Management Journal*, 14, 619-625.
- Boone, C., DeBrabander, B. & Van Witteloostuijn, A. (1996). CEO locus of control and small firm performance: An integrative framework and empirical test. *Journal of Management Studies*, 33: 667-699.
- Brockhaus, R. H. (1982). The psychology of entrepreneur. In C. A. Kent, D. L. Sexton, & K. H. Vesper (Eds.), *Encyclopedia of Entrepreneurship*: pp.39-71. Englewood Cliffs, NJ: Prentice Hall.
- Budner, S. (1962). Intolerance for ambiguity as a personal variable. *Journal of Personality*, 30, 29-50.
- Busenitz, L. (1999). Entrepreneurial risk and strategic decision-making: It's a matter of perspective. *The Journal of Applied Behavioral Science*, 35(3): 325-341.
- Busenitz, L., & Barney, J. (1997). Differences between entrepreneurs and managers in large organizations: Biases and Heuristics in strategic decision-making. *Journal of Business Venturing*, 12: 9-30.
- Carland, J. W., Carland, A. C & Aby, C. D. (1989). An assessment of the psychological determinants of planning in small business. *International Small Business Journal*, 7(4), 23-34.
- Carland, J. W., Hoy, F., Boulton, W. R., & Carland, J. C. (1984). Differentiating entrepreneurs from small business owners. *Academy of Management Review*, 9(2): 354-359.
- Chadwick, K. H. (1998). *An empirical analysis of the relationships among entrepreneurial orientation, organizational culture and firm performance*. Unpublished doctoral dissertation. Louisiana Tech University, Ruston Louisiana.
- Chandler, G. N., & Lyon, D. W. (2001). Issues of research design and construct measurement in entrepreneurship research: The past decade. *Entrepreneurship Theory and Practice*, Summer, 101-113.
- Cole, A. H. (1969). Definition of entrepreneurship. In J. C. Komives (ed.). Karl A. Bostrom. *Seminar in the study of enterprise*. Milwaukee Center for Venture Management, 10-22.
- Comadena, M. E. (1984). Brainstorming groups: Ambiguity tolerance, communication apprehension, task attraction, and individual productivity. *Small Group Behavior*, 15(2): 251-264.
- Covin, J. C., & Covin, T. J. (1990). Competitive aggressiveness, environmental context, and small firm performance. *Entrepreneurship Theory and Practice*, 14, 35-50.
- Covin, J. G. & Slevin, D. P. (1989). Strategic management of small firms in hostile benign environments. *Strategic Management Journal*, 10: 75-87.
- D' Aveni, R. (1994). *Hyper competition: Managing the dynamics of strategic maneuvering*. NY: Free Press.
- Dana, L.P. (1987). "Entrepreneurship and venture creation: An international comparison of five Commonwealth Nations" in *Frontiers of Entrepreneurship Research*. Ed. N. C. Churchill, J. A. Hornaday, B. A. Kirchhoff, O. J. Krasner, and K. H. Vesper. Wellesley, MA: Babson College, 573-583.
- Dollinger, M. (1983). Use of Budner's intolerance of ambiguity measure for entrepreneurial research. *Psychology Reports*, 53, 1019-1021.

- Edwards, A. L. (1959). *Edward personal preference schedule*. NY: The Psychological Corporation.
- Entrialgo, M., Fernandez, E., & Vazquez (2000). Characteristics of managers as determinants of entrepreneurial orientations: Some Spanish evidence. *Enterprise and Innovation Management Studies*, 1(2), 187-205.
- Fineman, F. (1977). The achievement motive construct and its measurement: Where are we now? *British Journal of Psychology*, 68, 1-22.
- Frenkel-Brunswik, E. (1948). Intolerance of ambiguity as emotional perceptual. *Personality of Assessment*, 40, 67-72.
- Gartner, W. B. (2001) Is there an elephant in entrepreneurship? Blind assumptions in theory development. *Entrepreneurship Theory and Practice*, 25(4), 27-39
- Gartner, W. B. (1988). "Who is an entrepreneur?" is the wrong question. *American Journal of Small Business*, 12(4): 11-32.
- Gasse, Y. (1982). 'Commentary elaboration: elaborations on the psychology of the entrepreneur'. In Kent, C. A., Sexton, D. L. and Vesper, K. H. (Eds.), *Encyclopedia of Entrepreneurship*. Englewood Cliffs, NJ: Prentice-Hall, pp.58-71.
- Ginsberg, A. (1985). Measuring changes in entrepreneurial orientation following industry deregulation: The development of a diagnostic instrument'. *Proceedings of International Council of Small Business*. 50-57.
- Gupta, A. K., & Govindarajan, V. (1984). Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation. *Academy of Management Journal*, 27: 25-41.
- Gurin, P., Gurin, G. Las, R., & Beattie, M. M. (1969). Internal-external control in the motivational dynamics of Negro youths. *Journal of Social Issues*, 25(3): 29-53.
- Hair, J. F., Anderson, R. E. , Tatham, R. L. & Black, W. C. (1995). *Multivariate data analysis*. (4th ed.). Englewood Cliffs, NJ: Prentice Hall.
- Hoy, F., Wisniesk, J. Gatewood, E., Bryant, L., & Patel, V. (1991). "An incubator within an incubator: A case study of biotechnology venturing" in *Frontiers of Entrepreneurship Research*. Ed. N. C. Churchill, W.D. Bygrave, J. C. Covin, L. L. Sexton, D. P. Slevin, K. H. Vesper, and W. E. Wetzel, Wellesley, MA: Babson College, 391-405.
- Jaafar, Mastura & Abdul-Aziz, Abdul-Rashid. (2005). Resource-Based View and Critical Success Factors: A Study on Small and Medium Sized Contracting Enterprises (SMCEs) in Malaysia. *The International Journal of Construction Management*, 61-77.
- Khan, A. M., & Manopichetwattana, V. (1989). Innovative and noninnovative small firms: Types and characteristics. *Management Science*, 35(5), 597-606.
- Kilby, P. (1971). *Entrepreneurship and economic development*. New York: Free Press.
- Kirzner, I. (1973). *Competition and entrepreneurship*. Chicago: University Press
- Knight, F. (1921). *Risk, uncertainty and profit*. New York: Augustus Kelley.
- Knight, G. A. (1997). Cross-cultural reliability and validity of a scale to measure firm entrepreneurial orientation. *Journal of Business Venturing*, 12: 213-225.
- Lee, S. M., & Peterson, S. J. (2000). Culture, entrepreneurial orientation, and global competitiveness. *Journal of World Business*, 35(4), 401
- Low, M. B., & MacMillan, I. C. (1988). Entrepreneurship: Past research and future challenges. *Journal of Management*, 14(2): 139-161.
- Lumpkin, G.T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and

- linking it to performance. *Academy of Management Review*, 21(1): 135-172
- Lyon, D. W., Lumpkin, G. T., & Dess, G. G. (2000). Enhancing entrepreneurial orientation research: Operationalizing and measuring a key strategic decision making process. *Journal of Management*, 26, (5): 1055-1085.
- Maidique, M. A., & Patch, P. (1982). Corporate strategy and technological policy. In M. L. Tushman & W. L. Moore (Eds.). *Readings in the management of innovation*, (pp273-285). Marshfield, MA: Pitman
- McClelland, D. C. (1965a). Achievement and entrepreneurship: A longitudinal study. *Journal of personality and Social Psychology*, 1, 389-392.
- McClelland, D. C. (1961). *The achieving society*. Princeton, NJ: Van Nostrand .
- Miller, D., & Friesen, P (1978). Archetypes of strategy formulation. *Management Science*, 24, 921-933
- Miner, J. B., Smith, N. K. & Bracker, J. S. (1989). Role of entrepreneurial task motivation in the growth of technologically innovative firms. *Journal of Applied Psychology*, 74(4): 554-560.
- Mintzberg, H. (1973). Strategy making in three modes. *California Management Review*, 16(2) 44-53.
- Morgan, G. A., & Griego, O. V (1998). *Easy use and interpretation of SPSS for windows*. Lawrence Erlbaum Associates, Mahwah, New Jersey.
- Morris, M. H. & Paul, G. W. (1987). The relationship between entrepreneurship and marketing in established firms. *Journal of Business Venturing*, 2(3) 247-259.
- Murray, H. A. (1938). *Explorations in personality*. NY: Oxford University Press.
- Naman, J. L., & Slevin, D. P. (1993). Entrepreneurship and the concept of fit: A model and empirical tests. *Strategic Management Journal*, 14: 137-153.
- Norton, R.W. (1975). Measurement of ambiguity for tolerance. *Journal of Personality Assessment*, 39,607-619.
- Nwachuckwu, O. C. (1995). CEO locus of control, strategic planning, differentiation, and small business performance: A test of path analytic model. *Journal of Applied Business Research*, 11: 9-14.
- Pennings, J. M. (1982). Organizational birth frequencies: An empirical examination, *Administrative Science Quarterly*, 27,120-144.
- Porter,M. (1985). *Competitive strategy*. NY: Free Press.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *psychological monographs: General and applied*, 80, Serial No 609.
- Schumpeter, J. A. (1934). *A theory of economic development*. Cambridge, MA: Harvard University Press.
- Schumpeter, J. A. (1942). *Capitalism, socialism, and democracy*. NY: Harper & Brothers.
- Schumpeter, J. A. (1950). *Capitalism, socialism, and democracy*, (3rd ed.). NY: Harper & Row
- Schafer, D. S. (1990). Level of entrepreneurship and scanning source usage in very small businesses. *Entrepreneurship Theory and Practice*, 15(2): 19-21.
- Sexton, D. L., & Bowman, N. (1985). The entrepreneur: A capable executive and more. *Journal of Business Venturing*, 1, 129-140.
- Shane, S., & Venkataraman, N. (2000). The promise of entrepreneurship as a field of research.

- Academy of Management Review*, 25(1), 217-226.
- Tegano, D. W. (1990). Relationship of tolerance for ambiguity and playfulness to creativity. *Psychological Reports*, 66(3): 1047-1056.
- Thompson, J. (1967). *Organizations in action*, New York: McGraw-Hill.
- Tsui, J. (1993). Tolerance for ambiguity, uncertainty audit qualifications and bankers' perceptions. *Psychological Reports*, 72(3): 915-919.
- Venkatraman, N. (1989). Strategic orientation of business enterprises: The construct dimensionality, and measurement. *Management Science*, 35, 942-962.
- Vesper, K. H. (1980). *New venture strategies*. Englewood Cliffs, NJ: Prentice Hall.
- Zahra, S. A., Jennings, D. F., & Kuratko, D. F. (1999). Guest editorial: Corporate entrepreneurship in a global economy. *Entrepreneurship Theory and Practice*, 24(1), 5-7.
- Zahra, S. A. (1993b). Environment, corporate entrepreneurship and financial performance: A taxonomic approach. *Journal of Business Venturing*, 8, 319-340.

