



THE PROPENSITY FOR ENTREPRENEURSHIP: PSYCHOLOGICAL AND SOCIAL FACTORS¹

LA PROPENSIÓN AL ESPÍRITU EMPRESARIAL: FACTORES PSICOLÓGICOS Y SOCIALES

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ABSTRACT

Personality traits, organizational factors, and environmental factors have been studied by entrepreneurship researchers as causes of new venture success; however, from 1961 to 1990, research about entrepreneurs' traits found only weak effects (Aldrich & Wiedenmayer, 1993). Recently, a growing cohort of psychology-based researchers has renewed interest in entrepreneurs' personal characteristics as predictors of success by moving beyond the past focus on traits to study competencies, motivation, cognition, and behavior. The main purpose of this paper is to provide a review and offer a theoretical extension of research on the social and psychological factors that influence the individual propensity to new ventures creation, and offer suggestions about future directions for this topic.

Key words: Entrepreneur, entrepreneurship, personality traits, entrepreneur's traits, entrepreneurial behavior.

RESUMEN

Los rasgos de personalidad, los factores organizacionales y los factores ambientales han sido estudiados por los investigadores como causas de la nueva empresa de éxito. Sin embargo, desde 1961 hasta 1990, la investigación sobre tales rasgos de los emprendedores encontró sólo efectos débiles (Aldrich y Wiedenmayer, 1993). Recientemente, un grupo creciente de investigadores, basados en la psicología, ha renovado el interés en las características de personalidad de los emprendedores como predictores de éxito al superar la anterior predilección en el estudio de rasgos tales como las competencias, la motivación, los conocimientos y la conducta. El objetivo principal de este trabajo es proporcionar una revisión y ofrecer una extensión teórica de la investigación sobre los factores sociales y psicológicos que influyen en la propensión individual a la creación de nuevas empresas, y ofrecer sugerencias sobre la orientación futura de este tema.

Palabras clave: Emprendedor, espíritu empresarial, los rasgos de personalidad, los rasgos de empresario, el comportamiento empresarial.

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1. INTRODUCTION

Entrepreneurship has an important role in a country's economy, contributing decisively for the creation of new businesses or business opportunities in companies that already exist, according to Global Entrepreneurship Monitor (GEM, 2007).

Consequently, entrepreneurship carries a series of advantages for the countries/regions, with the creation of new businesses that generate more investments in the local economy, creates new jobs, and increases competitiveness by developing innovative working tools. This way, this phenomenon is considered a major element in fostering the dynamics of an economy and bringing new types of competitive business (GEM, 2007).

Virtanen (1997) sees entrepreneurship as a dynamic process which the main purpose is to create value in the market, through the exploration of economic innovations. The entrepreneur, by creating value and by exploring innovative processes, is also contributing for the growth of their business and the economy.

The definition of entrepreneurship has been seen according to two criteria: the first involves the knowledge and the individual's capacity of recognizing economic opportunities existent in the market, which may be exploited through the creation of a new business; the second criteria involves the economic behavior and the creation of the new business in order to aggregate the economic value to knowledge (Audrestsch and Keilbach, 2004)³. According to Bygrave and Hofer (1991) and Bygrave (1993)⁴, entrepreneurship is a process which involves all the functions and activities related to the individuals' perception of opportunity and respective creation of enterprises in order to undertake these opportunities. Involves several precedent conditions and is started by an act of willingness, occurring at an individual level, implies a state of change and uniqueness, and its final results are sensitive to the initial conditions. In Venkataraman⁵

(1997) opinion, quoted by Shane and Venkataraman (2000), the entrepreneurship phenomenon cannot be explained based on what the entrepreneur is or does. For this author the focus should be on the relation between the existence of profitable opportunities and the presence of entrepreneurial individuals. Entrepreneurship undertakes the evaluation of opportunities sources, comprehending the discovery, estimation and exploration, plus a set of individuals that discover, evaluates and explores it (Shane and Venkataraman, 2000). The entrepreneurship process includes uncertainty and venture, management skills and creative opportunism (Brockhaus, 1980).

According to Philipsen (1998) features theories sustain that the individuals with propensity for entrepreneurship have certain characteristics which distinguishing them from the remaining individuals. These theories seek to identify the key-features of successful entrepreneurs, including psychological, sociological and anthropological variables.

Additionally, according to Casson (1982) the fundamental features, associated with the entrepreneur, such as imagination, are inherent and cannot be learned. In these terms, one of the many criticisms that are made to features' theory is that it doesn't enable us to distinguish inherent personality features from those that can be taught (Gordon, 2004).

By other hand, the inaptitude of the psychological features theory to explain entrepreneurship may result from the lack of knowledge regarding the social context and the choices that individuals do in the decision moment whether they should or not become entrepreneurs (Reynolds, 1991). According to Virtanen (1997) the sociological theories rely on the ethnical identification and try to explain entrepreneurship as being a process where the individual sociological past constitutes a decisive factor for he, or she, becoming an entrepreneur.

3 Audrestsch, D.B. & Keilbach, M. (2004). Entrepreneurship capital and economic performance. *Regional Studies*, 38(8), 949-959. p. 949

4 Bygrave, W.D. (1993). Theory building in the entrepreneurship paradigm. *Journal of Business Venturing*, 8, 255-280. p. 255

5 Venkataraman, S. (1997). The Distinctive Domain of Entrepreneurship Research: An Editor's Perspective. *Advances in Entrepreneurship*. J. Katz and R. Brockhaus. Greenwich, JAI Press. 3: 119-138. p. 119



Different studies establish that propensity for entrepreneurship depends on several factors. In this article, I analyze a conceptual framework based on social and psychological features.

2. THEORETICAL REVIEW

"Entrepreneurship is the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the resulting rewards" (Hisrich, Peters, & Shepherd, 2005).

Entrepreneurs are considered the center of new venture creation, and are individuals who capitalize intellectual and physical assets in the process of wealth creation by discovering and transforming unique opportunities into new ventures.

Entrepreneurship-oriented intentions are believed to be precursors of entrepreneurial action (Bird, 1988; Kolvereid, 1996; Krueger & Brazeal, 1994⁶; Krueger, Reilly, & Carsrud, 2000)⁷. As to further develop entrepreneurship theory, researchers need an understanding of the factors that might influence the intentions of those considering entrepreneurship for the first-time nascent entrepreneurs (Carter, Gartner, & Reynolds, 1996, p. 151; Reynolds, Carter, Gartner, & Greene, 2004; Rotefoss & Kolvereid, 2005, p. 109). Factors that would influence one to become an entrepreneur are many, and consist of various combinations of personal attributes, traits, background, experience, and disposition (Arenius & Minniti, 2005; Krueger, Reilly & Carsrud, 2000).

Psychological researchers have put emphasis on the character and personality traits of entrepreneurs. Two influential theoretical viewpoints in this view are coming from Schumpeter (1967) and Rotter (1966). According to the first author, the most relevant and important characteristic of an entrepreneur is his/her nature to make innovations. The entrepreneur provides leadership to discontinuous dynamic change

through means of production into new ways. He visualized this happening by means of a new combination of factors of production resulting in one or a few of the following: introduction of a new product, institution of a new technology, opening a new market, discovery of a new source of supply of raw materials and carrying out a new form of organization. In Rotter's opinion, there are two broad categories of people-people who believe that what happens to them is the result of chance, luck or factors beyond their control termed primarily believers in the external locus of control and people who believe that, for the most part, the future is theirs to control through their own efforts, termed as believers in the internal locus of control. According to Rotter (1966), people who are entrepreneurial are more likely to believe in the internal rather than in the external locus of control.

The motivations and behavior of individuals who are intended to create new ventures is an intriguing area of entrepreneurship research and has received increased attention over the last decade (Birley and Westhead, 1994; Carter et al., 1996, Davidsson and Honig, 2003). Several approaches to identifying "where entrepreneurs come from" have recently emerged. One popular approach employs long-standing psychology models of planned behavior to explain how ideas evolve into new ventures (Krueger and Brazeal, 1994)⁸. Another focus applies motivation models that incorporate personal attributes, values, characteristics, demographic factors and culture to explain why some individuals are more likely to engage in entrepreneurial behavior than others (Mueller and Thomas, 2001). Still, other approaches are based on entrepreneurial process models that focus on a "gestation" period during which various forms of nascent behavior are presumed to take place (Carter et al., 1996)⁹.

The first research studies in the field of entrepreneurship required to determine what personality characteristics distinguished entrepreneurs from non-entrepreneurs,

6 Krueger, N.F., Jr. & Brazeal, D.V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory & Practice*, 18(3), 91-104. p. 91

7 Krueger, N.F., Reilly, M.D., & Carsrud, A.L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15, 411-432. p. 411

8 Krueger and Brazeal, 1994, p. 91

9 Carter et al. 1996, p. 151



entrepreneurs from managers in large firms, and successful entrepreneurs from unsuccessful entrepreneurs (Brockhaus, 1982; Brockhaus & Horwitz, 1986). The role of personal traits (risk-taking propensity, locus of control, and need for achievement), found their way into journals and models until Gartner (1988) commented that the entrepreneur described by these research efforts had become larger than life and a sort of "generic everyman"; some aspects of this description would fit almost anyone. In Gartner's opinion, that line of reasoning had outlived its utility. Shaver and Scott (1991) concluded their research by stating: The study of new venture creation began with some reasonable assumptions about the psychological characteristics of "entrepreneurs." Through the years, more and more of these personological characteristics have been discarded, debunked, or at the very least, found to have been measured ineffectively. The result has been a tendency to concentrate on almost anything except the individual. Economic circumstances are important; marketing is important; finance is important; even public agency assistance is important. But none of these will, alone, create a new venture. For that we need a person, in whose mind all of the possibilities come together, who believes that innovation is possible, and who has the motivation to persist until the job is done. Person, process, and choice; for these we need a truly psychological perspective on new venture creation.

These arguments are consistent with the psychological argument defining behavior as a function of the interaction between the individual and the environment (Endler, 1983). Yet, Sexton and Bowman (1986) argued that empirical research had failed to agree on which characteristics distinguished entrepreneurs from other business persons.

Gartner (1985)¹⁰ proposed a conceptual framework of new venture creation that portrayed the process as an interaction of the

environment, the individual, the organization, and entrepreneurial behavior. Gartner (1988) suggested that in entrepreneurship research, the research questions should focus on the process of entrepreneurship instead of who is the entrepreneur. His implication is that entrepreneurship is a multidimensional process and that entrepreneurial traits are just one component of that process. Johnson (1990)¹¹ noted that few studies have explicitly addressed the question of how psychological predisposition, individual behaviors, and firm-level outcomes are related. Entrepreneurship is a multidimensional process that demands the utilization of multidimensional research models if true understanding of the process is to be attained.

At about the time of the Gartner et al. debate, Greenberger and Sexton (1988)¹², proposed a model that incorporated individual characteristics and environmental influences. Their model presented new venture creation as an interactive process in which personal characteristics, including personality, interacted with an interpretation of salient events in the environment to influence decisions concerning new venture creation. Greenberger and Sexton also included the concept of "vision," the entrepreneurs' abstract image of the kind of business they intend to create which serves as a guide for their own actions. The concepts of intentionality (Bird, 1988)¹³ and propensity (Montanari, Domicone, Oldenkamp, & Palich, 1990) have been suggested as key factors in the venture creation process. Learned (1992, p. 36) introduced a model that extended the interaction of personality traits, intention, propensity, and the situation.

Herron and Sapienza (1992)¹⁴ stated, "Because motivation plays an important part in the creation of new organizations, theories of organization creation that fail to address this notion are incomplete." Johnson (1990)¹⁵ in his review of achievement motivation and

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- 10 Gartner, W. B. (1985). A conceptual framework for describing the phenomenon of new venture creation. *Academy of Management Review*, 10(4), 696-706. p. 696.
 - 11 Johnson, B. R. (1990). Toward a multidimensional model of entrepreneurship: The case of achievement motivation and the entrepreneur. *Entrepreneurship Theory and Practice*, 14(3), 39-54. p.48
 - 12 Gartner, W. B. (1988). Who is an entrepreneur? Is the wrong question. *Entrepreneurship Theory and Practice*, 13(4), 47-68. p. 47
 - 13 Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*. /J(3). 442-453. p. 442.
 - 14 Herron, L. & Sapienza, H. J. (1992). The entrepreneur and the initiation of new venture launch activities. *Entrepreneurship Theory and Practice*, /7(1), 49-55. p 49



the entrepreneur stated, it remains worthwhile to carefully study the role of the individual, including his or her psychological profile. Individuals are, after all, the energizers of the entrepreneurial process.

Churchill (1992)¹⁶ summarized the anticipated research needs concerning the psychology of entrepreneurs by stating, we lack a generic definition of the psychology of the entrepreneur and the relationship of psychological traits to both the initiation and growth of new enterprises . . . it might be beneficial to concentrate our research efforts, not on the psychological characteristics of entrepreneurs, but on determining why they succeed or fail.

The decision to behave entrepreneurially is based on more than personal characteristics and individual differences. The interaction of personal characteristics with other important perceptions of situational factors needs to be better understood (Naffziger, Hornsby, Kuratko, 1994). Reynolds (1992, p. 268) proposed three factors that may affect an individual's decision to start a new firm: (1) the characteristics of the economic context; (2) the characteristics of the individual's life or career context; and (3) underlying personal disposition. Based upon this and other existing literature, five major categories of variables are believed to interactively influence an individual's decision to behave entrepreneurially. Those variables are: (1) an entrepreneur's personal characteristics; (2) the individual's personal environment; (3) the relevant business environment; (4) the specific business idea; and (5) the goals of the entrepreneur (Naffziger, Hornsby, Kuratko, 1994).

The researches for personality traits differences between entrepreneurs and non-entrepreneurs were developed by several researchers in the 1980s. Much of the research focused on traits such as the need

for achievement, locus of control, and risk-taking propensity (Naffziger, Hornsby, Kuratko, 1994)¹⁷. Gartner's (1985) model of new venture creation included those three variables, not necessarily to say that they differentiate entrepreneurs from nonentrepreneurs, but to indicate that they are important in the process of starting a business.

Other findings of individual characteristics related to the venture creation process include energy level, conformity, and need for autonomy (Sexton & Bowman, 1986), persistence and dominance (Neider, 1987), desire for personal control (Greenberger & Sexton, 1988), and the desire to build something of one's own (Knight, 1987). Greenberger and Sexton (1988: 1-7) also hypothesized that one's attitude about one's self is influential in the decision to start a business. Herron and Sapienza (1992)¹⁸ proposed the importance of personality traits in affecting an entrepreneur's level of aspiration towards a venture.

Personal goals

Greenberger and Sexton (1988, p. 4)¹⁹ identify the entrepreneur's vision as a significant and relevant force in the development of the new venture. Furthermore, Learned (1992) included intentionality and propensity to found a venture as key variables in the entrepreneurial process. Herron and Sapienza (1992) demonstrated the importance of the entrepreneur's level of aspirations in their venture initiation model (Naffziger, Hornsby and Kuratko, 1994)²⁰.

Naffziger et al (1994)²¹ proposed a Model of Entrepreneurial Motivation and stated that the decision to behave entrepreneurially is hypothesized to be the result of the interaction of several factors. One set of factors includes the personal characteristics

15 Johnson, B. R. (1990). Toward a multidimensional model of entrepreneurship: The case of achievement motivation and the entrepreneur. *Entrepreneurship Theory and Practice*, 14(3), 39-54. p. 48

16 Churchill, N. C. (1992). Research issues in entrepreneurship. In D. L. Sexton & J. D. Kasarda (Eds.), *The state of the art of entrepreneurship*, pp. 579-590. Boston, MA: PWS-Kent Publishing. p. 585

17 Naffziger, D.W., Hornsby, J.S., & Kuratko, D.F. (1994). A proposed research model of entrepreneurship. *Entrepreneurship Theory and Practice*, 18, p. 32

18 Herron and Sapienza. Op. cit. 1992, p. 49

19 Greenberger, D.B., & Sexton, D. (1988). An interactive model of new venture initiation. *Journal of Small Business Management*. 26(1), 1-7. p. 4

20 Naffziger, D.W., Hornsby, J.S., & Kuratko, D.F. Op. cit., 1994. p. 32

21 Ibid. p. 29



of the individual, the individual's personal environment, the relevant business environment, the individual's personal goal set, and the existence of a viable business idea. In addition, individuals make comparisons between their perception of the probable outcomes and the personal expectations they have in mind. Then, individuals look at the relationship between the entrepreneurial behavior they would implement and the expected outcomes that would result. Thus, it is contended that an individual's decision to behave in an entrepreneurial fashion is clearly influenced by more than simply personal characteristics, as proposed in early entrepreneurial literature.

General profiles of entrepreneurs often include optimism and other entrepreneurial characteristics such as self confidence, high expectations, willingness to accept risks, etc. Some empirical studies have examined how entrepreneurial characteristics impact on certain entrepreneurial decisions in investment, new venture creation, work/life choices, or success/failure of entrepreneurial actions. Researchers in psychology have investigated optimism (often contrasted to pessimism) as an attribute of individuals who link positive thinking, better outcomes, personal control, personal well-being, coping strategy, self-esteem, or interactions between individuals in different cultures and environments (Liang & Dunn, 2003). Optimism is often listed among the other characteristics of entrepreneurs such as high achievement drive, action oriented, internal locus of control, tolerance for ambiguity, moderate risk taking, commitment, opportunistic, initiative, independence and commitment/tenacity (Liang and Dunn, 2003; Malach-Pines, Ayala, Arik Sadeh, Dov Dvir, and Orenya Yafe-Yanai, 2002²²; Crane & Jeffrey, 2004)²³.

Realism and optimism

Liang and Dunn (2008) considered three new dimensions to the study of entrepreneurs - realism, mixed optimism/realism, and fuzzy. Little had been done in those areas. The authors discovered that while most

entrepreneurs are optimistic, they are also realistic. These findings would push entrepreneurship research into a new field of study. Several new research topics could be developed such as how venture decisions are derived, how entrepreneurs assess or accept risks, if entrepreneurs behave differently because of different set of parameters in optimism and/or realism, and if specific traits influence learning and expectations.

Entrepreneurs can be optimists and realists at the same time (Liang and Dunn, 2008). The nature of the world means that to be realistic we must normally be optimistic (More, 1998). Optimists display certain attitudes, not detached estimates of the objective probability of good and bad events in the future, to make personal commitments to certain modes of thinking and behaving (More, 1998). It is a way of thinking, generated by optimistic attitudes, that makes entrepreneurs unique.

"Economic circumstances are important; marketing is important; finance is important; even public agency assistance is important. But none of these will, alone, create a new venture. For that we need a person, in whose mind all of the possibilities come together, who believes that innovation is possible, and who has the motivation to persist until the job is done. Person, process, and choice: for these we need a truly psychological perspective on new venture creation". - Shaver and Scott (1991)²⁴

Different types of entrepreneurs

The first work in this area was developed by Smith (1967), who isolated two types of entrepreneurs, based on their personal characteristics and work motivations. 'Craftsman' entrepreneurs came from blue-collar backgrounds, relatively lower levels of education, and had been associated with operations rather than management in the past. In running their firms, they were typically paternalistic, used personal finances or relatives

22 Malach-Pines, Ayala, Arik Sadeh, Dov Dvir, and Orenya Yafe-Yanai (2002). Entrepreneurs and Managers: Similar Yet Different, *The International Journal of Organizational Analysis*, 10(2), 174. p. 174

23 Crane, F., and Jeffrey, S. (2004), Imperatives to Venture Success, *International Journal of Entrepreneurship and Innovation*, 5(2), p.99

24 Shaver, K.G. & Scott, L.R. (1991): Person, process, choice: the psychology of new creation. *Entrepreneurship: Theory & Practice*, 16(2), 23-45. p. 39



and friends for financing, used personal relationships in marketing, and adopted rigid strategies. 'Opportunistic' entrepreneurs, on the other hand, had middle class backgrounds, were more educated, had a greater variety of work experience, and had some past experience with management. They were more aware of and sensitive to the market, and better oriented towards spotting opportunities and growth. Their management style was more professional, they delegated more, looked for more financing options, adopted more innovative competitive strategies, and led adaptive and faster growing firms.

Other researchers have tried to build upon Smith's (1967) craftsman-opportunistic typology (Filley and Aldag, 1978²⁵; Smith and Miner, 1983)²⁶. Broadly, three types of entrepreneurs have been identified, 1) the craftsman entrepreneurs, who are strongly motivated to do what they enjoy doing, and value their independence, 2) managerial entrepreneurs, who are motivated by economic gain or building an organization, and are more concerned with administrative details and control systems, and 3) opportunistic entrepreneurs who can exploit the market conditions by spotting a particular need (Smith, 1967; Smith and Miner, 1983).

Further studies by Filley and Aldag (1978), Cooper and Dunkelberg (1986), and Lafuente and Salas (1989) have also identified different types of entrepreneurs based on different sets of initial classificatory variables like education, previous work experience, the process of ownership, work expectations etc, and related these classification variables to growth rates or type of firm created.

As Gartner (1985) highlighted, there are pertinent variations among entrepreneurs and the enterprises/ organizations they create. Smith (1967) found opportunistic entrepreneurs' chances for survival and growth to be higher than that of craftsman entrepreneurs. Carland et al (1984) differentiated between

entrepreneurs and small business owners based on the firm's growth orientation. Birch (1987) has discussed two types of small firms, income substitutors and entrepreneurs, and noted the difference in growth orientation between them. Westhead and Wright (1988)²⁷ have distinguished between novice, portfolio, and serial entrepreneurs, based on the entrepreneur's experience in new venture creation, and conclude that portfolio and serial entrepreneurs are significantly associated with higher job creation rates.

Entrepreneurs create new ventures for a variety of reasons, and satisfying a variety of personal objectives. Motivational structures will be very different for the entrepreneur who wants challenging work and for one who chooses self employment as "a more desirable form of earning a living" (Chell, Haworth, and Brearley, 1991). This is expected to have a significant effect on the behavior of the entrepreneur, and hence the future performance of the ventures created by them.

Kolvereid (1991, cited in Gundry and Welsch, 1997) found that higher levels of growth aspirations were related to entrepreneurs who started businesses as a means of personal achievement. Similarly, Amit and Muller (1996) found that "Pull" entrepreneurs had significantly higher chances of success than "Push" entrepreneurs. Thus, reasons for starting a business may be related to the growth orientation of the entrepreneur.

Moreover, although entrepreneurship is a situational phenomenon, combinations of circumstances cannot create a new venture by themselves. The entrepreneur as an individual has to employ his own skills to "shape a new organization out of complexity and chaos" (Herron, 1990, quoted in Herron and Sapienza, 1992)²⁸. Entrepreneurs come from different social backgrounds; have varied education, training and work experience, all of which result in the development of different skill sets. These

25 Filley, A.C., & Aldag, R.J. (1978). Characteristics and measurement of an entrepreneurial typology. *Academy of Management Journal*, 4(21), 5798-591. p. 578

26 Smith, N.R. y Miner, J.B. (1983): Type of entrepreneur, type of firm and managerial motivation: implications for organizational life cycle theory. *Strategic Management Journal*, 4, 325-340. p. 325

27 Westhead, P., and Wright, M. (1998). Novice, Portfolio, and Serial Founders: Are They Different? *Journal of Business Venturing*, 13, 173-204. p. 173

28 Herron and Sapienza, Op. cit. 1992, p. 50



differences may impact their decisions and be another source of variation between the ventures they create.

Moreover, it is suggested that personality is manifested in knowledge, skill and ability (Baum, 1995). Herron and Robinson (1993)²⁹ conceptualize 'skills' as a function of aptitude and training. Hence, skill sets of entrepreneurs will capture the effect of the knowledge and abilities acquired by them through their education, training and work experience.

Early research on the decision to start a new business tended to focus either on contextual factors such as job displacement (Shapero & Sokol, 1982)³⁰, prior work experience (Mokry, 1988) or on individual personality factors such as the need for achievement (McClelland, 1965)³¹, internal locus of control, acceptance of risk (Brockhaus & Horowitz, 1986), and the tolerance of ambiguity (Scherer, 1982). More recent models of entrepreneurial decision have adopted a perspective in which the individual is an intentional decision maker and actor, engaging in the rational appraisal of situational and personal factors (Bird, 1988, Krueger, 1993).

Thus, from the newer cognitive perspective, external factors and personality factors still influence the entrepreneurial decision, but only insofar as they are perceived and interpreted by the potential entrepreneur.

Krueger, Reilly, and Carsrud (2000)³² compared two models of entrepreneurial decision making based on the premise that intention to start a new venture is the major predictor of entrepreneurial behavior. In both models (Shapero & Sokol, 1982; Ajzen, 1991)³³ self-

efficacy emerged an important influence on intention. In essence, the belief that one can personally execute the behaviors needed to create a new venture is professed to enhance the intent to do so (Boyd & Vozikis, 1994; Krueger & Brazeal, 1994). Brice, Jr. J, and Spencer (2007)³⁴ were aimed to build on this cognitive approach by profiling how individuals weigh different criteria when judging entrepreneurial efficacy.

Entrepreneurial Self-Efficacy

While relatively new to research on entrepreneurship, self-efficacy is widely recognized as a key construct in social learning theory (Bandura, 1977, p. 191), a perspective which assumes that behavior, cognitions, and the environment continually influence each other in the mindset of individuals (Bandura, 1977, p. 191, and Bandura, 1986). Self-efficacy refers to people's judgments regarding their ability to perform a given activity (Bandura, 1977, 1982, and 1986) and is proposed to influence individual choices, goals, emotional reactions, effort, ability to cope, and persistence (Gist, Stevens, & Bavetta, 1991). Hackett and Betz (1981, p. 326) proposed that Bandura's (1977) theory of self-efficacy provides a useful conceptual framework from which to predict the occupational preferences of individuals.

Based on this foundation, Boyd and Vozikis (1994)³⁵ and Krueger and Brazeal (1994)³⁶ helped lodge the notion of self-efficacy firmly in the entrepreneurship literature by suggesting that perceptions of entrepreneurial self-efficacy could contribute significantly to an individual's deliberations about whether, or not, to pursue an entrepreneurial career.

29 Herron, L., & Robinson Jr., R. B. (1993). A structural model of the effects of entrepreneurial characteristics on venture performance. *Journal of Business Venturing*, 8, 281-294. p. 285.

30 Shapero, A. & Sokol, L. (1982). The social dimensions of entrepreneurship. In C.A. Kent, D.L. Sexton, & K.H. Vesper (eds.) *Encyclopedia of entrepreneurship*, pp. 72-90. Englewood Cliffs, NJ: Prentice-Hall. p. 72

31 McClelland, D. (1965). N achievement and entrepreneurship: A longitudinal study. *Journal of Personality and Social Psychology*, 1: 389-392. p. 389

32 Krueger, N.F., Reilly, M.D., & Carsrud, A.L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15, 411-432. p. 411

33 Ajzen, Op. cit., 1991, p. 179

34 Brice, Jr. J, & Spencer, B. (2007). Entrepreneurial profiling: A decision policy analysis of the influence of entrepreneurial self-efficacy on Entrepreneurial intent. *Academy of Entrepreneurship Journal*, 13(2), 47-48.

35 Boyd, N. & Vozikis, G. (1994). The Influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18(4): 63-78.

36 Krueger and Brazeal Op. cit. 1994, p. 92



Before the appearance of these key theoretical pieces, Chandler and Jansen (1992) conducted research on business founders' self-assessments of "proficiency in the entrepreneurial function."

A strength of this research was their development of a scale measuring five human competencies associated with the entrepreneurial, managerial, and technical-functional roles of business founders (Mintzberg & Waters, 1982³⁷; Pavett & Lau, 1983³⁸; Schein, 1987)³⁹. Chandler and Jansen (1992, p. 237)⁴⁰ demonstrated that founders of the most successful firms in their sample rated themselves higher than others on capabilities associated with all three of these roles.

More recently, Chen, Greene, and Crick (1998, p. 295-317) operationalized entrepreneurial self-efficacy (ESE) as self-assessed "certainty" in dealing with 26 specific tasks identified from prior literature and interviews with several local entrepreneurs concerning key entrepreneurial roles. After gathering self-ratings on these tasks from students and business owners/executives, they used factor analysis to combine them into five categories including marketing, innovation, management, risk taking, and financial control. They also created an overall "ESE" measure, by taking the mean over all 26 items. Their findings showed that among students, overall ESE was significantly correlated with the stated intention to start a business. Among business executives, those who were founders rated themselves higher on total ESE and particularly, on innovation and risk-taking, than did nonfounders.

While Chandler and Jansen's (1992) and Chen, Greene and Crick's (1998) results are enticing, further research on entrepreneurial self-efficacy and the intention to start a new business is needed. For instance, what criteria do people use when deciding about their aptitude to start a business? Are some efficacy criteria more important than others in making this evaluation?

Chandler and Jansen's (1992) most successful entrepreneurs rated themselves highly on all competencies, while Chen, Greene and Crick's (1998, p. 295) founders rated their abilities on innovation and risk-taking more highly than did non-founders. But neither study tells us which criteria people consider most, or least, important when judging their ability to start a new venture. Such information would be particularly important if it helped us to understand the decision-making processes of prospective entrepreneurs.

A second troublesome unresolved issue related to entrepreneurial self-efficacy is the problem of social desirability bias in self-assessments. Because the notion of self-efficacy inherently involves people's judgments about their ability to perform given activities (Bandura, 1982), the use of self-reported survey evaluations make sense. Yet, in such circumstances, individuals may be tempted to inflate their ratings (i.e., to impress study evaluators, among other reasons). In fact, Chen, Greene, and Crick (1998) noted that the high interfactor correlations among their component entrepreneurial self-efficacy scores may well have been caused by social desirability response bias.

They stated that future researchers should think of ways to reduce social desirability. The study described here is an effort to advance the research on entrepreneurial self-efficacy and entrepreneurial intentions and to address the social desirability limitation encountered in Chen, Greene, and Crick (1998). A decision modeling approach is applied to assess how individuals weigh several key entrepreneurial competencies in deciding whether someone would be capable of pursuing a promising business venture. This method avoids the social desirability dilemma because respondents make hypothetical decisions based on specified cues. Decision modeling diminishes the misrepresentation of social desirability response biases that might be uncovered by asking respondents to make judgments about ambiguous situations in a seemingly external

37 Mintzberg & Waters, 1982, p. 465.

38 Pavett & Lau, 1983, p. 171

39 Schein, 1987, p. 151

40 Chandler and Jansen, 1992, p. 237



world, which serves to expose their genuine sensitivities (Fischer, 1993)⁴¹.

Bandura (1982) defined self-efficacy as the task-specific consideration of perceived fitness to perform a particular activity. In the case of entrepreneurship, entrepreneurial self-efficacy may be comprised of deliberation of those tasks that relate to the initiation and development of new ventures, which is considered emblematic of the entrepreneurial act (Livesay, 1982, p. 13). One way to identify these tasks is to think about the basic functional areas of business.

For instance, a study by Scherer, Adams, Carley, and Weibe (1989, p. 53)⁴² operationalized entrepreneurial self-efficacy as expertise in accounting, production, marketing, human resources, and general organizational skills. A limitation of this approach is that proficiency in all of areas may not be required for all new venture efforts. For instance, while a prospective manufacturer of industrial equipment may have to consider whether he or she is competent in all of the aforementioned functional responsibilities before attempting to develop a new venture, an independent hot-dog cart operator may only have to consider his or her basic accounting and marketing skills before launching a new hot-dog cart operation. As this example demonstrates, the assessment of specific functional abilities before new venture initiation is dependent on the scope and scale of the particular venture being considered.

Additionally, an entrepreneurial self-efficacy construct based on functional capabilities ignores the fact that co-opting from external sources may solve some functional shortcomings, on the part of the prospective entrepreneur. For example, an individual who lacks accounting/bookkeeping skill can easily and inexpensively purchase that service from an independent contractor. Knowing this, a prospective entrepreneur without sufficient accounting expertise may still be willing to undertake the development of a new venture.

Because a negative perception of one's fitness in some functional capacities may not have the predicted effect on entrepreneurial behavior, it seems likely that a functional capability description of entrepreneurial self-efficacy may not have a decisive influence on whether or not one decides to pursue an entrepreneurial career.

Instead of considering functional tasks, a different approach to clarifying entrepreneurial efficacy is to consider the broader human competencies associated with new venture development since human competency assessments are less dependent on the specification and complexity of particular new venture entry domains. Drawing from writings by Mintzberg and Waters (1982); Pavett and Lau (1983); and Schein (1987), Chandler and Jansen (1992) identified five such competencies based on the three primary roles of the entrepreneur: the entrepreneurial, managerial, and technical-functional. The idea is that both an industrial manufacturer and a hot-dog cart operator must assume all of these roles while initiating their firms, regardless of the scope or scale of their ventures.

In the entrepreneurial role, business founders examine their environment and listen to their customers to find new opportunities, and devise methods to exploit opportunities for the benefit of a new firm (Mintzberg & Waters 1982). Two competencies are involved here. First, entrepreneurs must possess the human/conceptual competency to recognize unique opportunities, and second, they require the drive to take the venture from conceptualization through to fulfillment (MacMillan, Siegel, & SubbaNarisimha, 1985, p. 119); Timmons, Muzyka, Stevenson, & Bygrave, 1987; Chandler & Jansen, 1992). In the managerial role, there are also two broad competencies: leadership and organizational skills (Pavett & Lau, 1983, p. 170; Schein 1987, p. 151), and the political competence to procure the support of network members (Pavett & Lau 1983, p. 170). In the technical-functional role, business founders must have some

41 Fisher, R.J. (1993). Social desirability and the validity of indirect questioning. *Journal of Consumer Research*, 20: 303- 315.

42 Scherer, Adams, Carley, and Weibe. Op. cit. 1989, p. 53

43 Pavett, C.M. Lau, A.W. (1983). Managerial work: The influence of hierarchical level and functional specialty. *Academy of Management Journal*, 26(1), p.170



specialized expertise in the industry within which the firm will operate (Pavett & Lau 1983⁴³; Chandler & Jansen, 1992)⁴⁴.

Entrepreneurial Self-Efficacy and Entrepreneurial Intentions

Self-efficacy is a construct indicating that behavior, cognition, and the environment influence each other in a dynamic fashion, thus allowing individuals to form beliefs about their ability to perform specific tasks (Bandura, 1977, p.194). Entrepreneurial self-efficacy (ESE) is, therefore, viewed as having the capabilities that can modify a person's belief in his or her likelihood of completing the tasks required to successfully initiate and establish a new business venture (Bandura, 1986). Specifically, entrepreneurial self-efficacy is defined as the degree to which one is self-confident to be able to successfully start a new business venture.

Past research can be used to link entrepreneurial self-efficacy and entrepreneurial intentions. Hackett and Betz (1981, p. 326) projected that Bandura's (1977) theory of self-efficacy may be applied to determine the vocational inclinations of individuals. Empirical findings indicate that self-efficacy is highly involved in the career decision-making process. In fact, career self-efficacy was found to be the most important predictor of males' intentions to pursue careers in traditionally female occupations (Giles & Rea, 1999). Individuals with high levels of entrepreneurial self-efficacy may also have strong occupational intentions for an entrepreneurial career. Lent, Brown, and Hackett (1994) applied self-efficacy in a social cognitive framework (Bandura, 1986) to explain three aspects of generalized career development: (1) the formation of career-relevant interests, (2) selection of a career choice option (intentions), and (3) performance and persistence in the selected occupation. Lent, et al (1994) found that self-efficacy was significantly related to career interests, career choice goals (intentions), and occupational performance. However, Lent, et al (1994) also found that self-efficacy is the sole mediator between a

person's abilities and his or her career interests. These three findings taken together can be interpreted as meaning that self-efficacy may be used to predict the intended career-related intentions and behavior of individuals. It has been established that self-efficacy is the major influence on career-related behavior in Bandura's (1986) social cognitive theory (Lent, et al, 1994).

Since social cognitive theory proposes that individuals choose to undertake tasks in which they are confident, comfortable, and perceive competence (Bandura, 1986), this study hypothesizes that individuals who maintain relatively high entrepreneurial intentions will place significant weight on their perception of fitness for entrepreneurial competencies (highly entrepreneurial self-efficacious).

Intent is a dependable predictor of human behavior in an assortment of circumstances, and has been deemed by many to represent the most successful forecaster of human attitudes and action (Ajzen, 1991, p. 179). Intentions are assumed to capture the essence of stimulating factors that influence behavior. They are signals of how intensely individuals are prepared to perform and how much effort they are prepared to commit to carry out the expected behavior. Basically, the more robust the intent, the more probable it is to be able to foretell the anticipated behavior (Ajzen, 1991). Past research (Kim & Hunter, 1993) found that intentions explained sixty-seven percent of the variance in behavior and path analysis confirmed that the association between attitudes and behavior is fully explained by the attitude-intention and intention-behavior links (Krueger, 2000)⁴⁵.

Brice, Jr. and Spencer (2007)⁴⁶ stated several implications of entrepreneurial self-efficacy that deserve further emphasis. First, self-efficacy is a wide-ranging evaluation of perceived fitness for the performance of a specific activity (Bandura & Wood, 1989). They argue that in a real-world entrepreneurship context, information derived exclusively from the individual (cognitions), the particular

44 Chandler, G.N. & Jansen, E. (1992). The founder's self-assessed competence and venture performance. *Journal of Business Venturing*, 7(3): p. 223-45. Brice, Jr. J, & Spencer, B. (2007). Entrepreneurial profiling: A decision policy analysis of the influence of entrepreneurial self-efficacy on Entrepreneurial intent. *Academy of Entrepreneurship Journal*, 13(2), pp. 47-48.

46 Ibid. p. 62



venture creation and development task (behavior), and the network of supporting individuals and organizations involved in a specific entrepreneurial effort (environment) may possibly add to estimated capability judgments on the part of the prospective entrepreneur. However, in the context of global entrepreneurial self-efficacy research, it may be more useful to examine self-efficacy for general entrepreneurial tasks (such as nonspecific new venture initiation) through the mechanism of universal assessment criteria (e.g. human competencies) instead of relying on functional criteria that is too specific to be applied to all forms of planned venture initiations.

Self-efficacy refers to an individual's belief in their personal capability to accomplish a job or a specific set of tasks (Bandura, 1977)⁴⁷. Self-efficacy is a useful concept for explaining human behavior as research reveals that it plays an influential role in determining an individual's choice, level of effort, and perseverance (Chen et al., 2004)⁴⁸.

Simply stated, individuals with high self-efficacy for a certain task are more likely to pursue and then persist in that task than those individuals who possess low self-efficacy (Bandura, 1997).

Self-efficacy, according to Bandura (1982, p. 12), is the conviction that one can successfully execute the desired behavior (e.g., successfully launch a business) required to produce an outcome. Bandura contended that role-model influence occurs primarily through mastery of experiences (repeated performance accomplishments), observational learning (observing rather than direct involvement), and social persuasion (convincing that tasks can be performed).

Contrasting the Shapero's (1982) and Ajzen's (1991) theory, Krueger et al. (2000, p. 412-414)⁴⁹ proposed that intentions predict entrepreneurship better than personality traits and situations and that "a strong intention to start a business should result in an eventual attempt, even if immediate circumstances such

as marriage, child bearing, finishing school, a lucrative or rewarding job, or earthquakes may dictate a long delay."

Otherwise, McGee, Peterson, Mueller and Sequeira (2009)⁵⁰ developed a study focused to refine and standardize the Entrepreneurial Self-efficacy (ESE) measurement, because of inclusion of this construct in different studies on entrepreneurial motivation, intentions, and planned behavior.

In their study, McGee et al (2009), based on Barbosa, Gerhardt, & Kickul (2007), Boyd & Vozikis (1994) and Zhao, Seibert, & Hills (2005) establishes that Entrepreneurial self-efficacy (ESE) appears to be a particularly important antecedent to new venture intentions. ESE is a construct that measures a person's belief in their ability to successfully launch an entrepreneurial venture (McGee, et al, 2009)⁵¹. Additionally, McGee et al (2009, p. 965), stated ESE is particularly useful since it incorporates personality as well as environmental factors, and is thought to be a strong predictor of entrepreneurial intentions and ultimately action (Bird, 1988; Boyd & Vozikis).

In fact, the McGee and colleagues' study supports the advancement of research on ESE and its relationship to entrepreneurial intentions by developing a more robust measure of ESE that can be used by researchers in a variety of contexts.

Social competence

Several psychological variables are crucial and relevant to understand entrepreneurship and entrepreneurial behavior. Entrepreneurial intent and success have been linked to social competence, motivation, self-efficacy (Chen, Greene, & Crick, 1998; Zhao, Seibert, & Hills, 2005), and willingness to bear uncertainty. Other research has investigated the common attributes of entrepreneurs (Baum & Locke, 2004) and the effect of gender and minority status on the propensity to consider entrepreneurship as a potential career option. By other hand, Baum, Frese and Baron (2007) stated that "despite the belief that the entrepreneur's personal characteristics are

47 Bandura, 1977, p.194

48 Chen et al., 2004, p. 376.

49 Krueger et al. Op. cit.,2000, p. 412-414

50 McGee, Peterson, Mueller and Sequeira, Op. cit. 2009, p. 965

51 Ibid. p. 965



important for new venture success, the psychology of the entrepreneur has not been thoroughly studied."

Personality and entrepreneurship

Research on personality and entrepreneurship has been focused on two ways or research questions: Why do some people but not others become entrepreneurs? Why do some people make more successful entrepreneurs than others? (Shaver, 2007). The personality approach provided the impetus for substantial research in the 1960s and 1970s, with specific research focused on need for achievement (McClelland, 1961), the most frequently studied personality characteristic, rising in the 1980s (Rauch & Frese, 2007).

Some research has found that personality characteristics fail to exactly distinguish between entrepreneurs and non-entrepreneurs and generally account for a small part of the variance in entrepreneurial success (Cromie, 2000; Hisrich, 2000). By other way, meta-analyses have found a small and positive relationship between autonomy, internal locus of control, and risk-taking propensity and new venture creation and success, and a moderate, positive relationship between innovativeness, and self-efficacy and new venture creation and success (Hisrich, Langan-Fox and Grant, 2007).

According to Rauch & Frese (2000), risk-taking propensity has a weaker association with both outcome variables, and self-efficacy has a stronger association with success. However, it is possible that personality has a role in entrepreneurship that might have been underestimated in past research because of design and methodological constraints (Hisrich, et al, 2007).

Entrepreneurship is a complex, dynamic, multiphase process, yet the relevance of personality characteristics at each phase has not been identified. Past research has focused on the start-up phase, with characteristics of entrepreneurs and nonentrepreneurs contrasted on the basis of the assumption that innate characteristics cause the entrepreneurship status (Davidsson, 2007).

Hisrich et al (2007) establish that this issue is problematic because of: a) such an approach does not test for reversed causation. It is difficult to evaluate whether the personality characteristics of entrepreneurs are a predisposing factor or are learned from the role itself. Empirical work has assumed the former perspective: that those displaying the characteristics in question self-select into entrepreneurship (Shane, 2003). b) The personality characteristics that predict entrepreneurial behavior may not predict behavior later on in the entrepreneurship process (Eckhardt & Shane, 2003). c) Distal person characteristics are unlikely to be a strong predictor of a proximal event (Davidsson, 2007).

Hisrich et al (2007)⁵² say: "Davidsson (2007) recommended using a behavioral aggregate of entrepreneurial activity such as entrepreneurial career performance as an alternative to the dichotomous outcome variable of entrepreneurship status (i.e., founder vs. nonfounder)".

Hisrich and colleagues proposed a number of research questions that provide a call to action for psychologists interested in entrepreneurship, specifically in personality and entrepreneurship, such as:

- Are the personality characteristics of entrepreneurs a predisposing factor, or are they learned from the role itself? That is, what are the antecedent personality characteristics for entrepreneurship?
- What is the relative importance of different personality characteristics at each phase of the entrepreneurship process? Do the personality characteristics that predict start-up differ from those that predict growth and survival?
- Which personality characteristics need to remain stable, and which personality characteristics need to change or develop over time?
- Are personality characteristics a longitudinal predictor of success?

52 Hisrich et al., Op. cit. 2007, p. 580



- Which personality characteristics are associated with failure?
- What are the moderating and mediating variables in the personality-entrepreneurship relationship?
- Do the important personality characteristics differ for individual versus corporate or team-based entrepreneurs?

Rauch and Frese (2007) stated that wide taxonomies of personality traits such as the Big Five have been less frequently studied in the entrepreneurship literature and that general traits have lower predictive validity than specific traits. Hisrich et al (2007, p. 582)⁵³ say Rauch and Frese (2007) suggested that (a) predictor and criterion variables should be matched on the basis of broadness versus specificity and (b) the effect of broad traits on new venture creation and success may be mediated by specific traits. Nonperson mediator and moderator variables should also be included in future research (Davidsson, 2007).

Kumar (2007)⁵⁴ states that entrepreneurship literature has a lot of studies probing propensity of an individual towards enterprise creation. These studies could be divided into two categories. First category is on personality traits. Some of scholars, mainly psychologists, working in this field have developed useful insights towards this. Some of important concepts that have been explored by these scholars to explain entrepreneurship are: Need for Achievement (McClelland; 1961), Need for power (McClelland, 1975), Internal locus of control (Rotter; 1966), Risk taking propensity (Brockhaus, 1982), Tolerance for ambiguity (Begley and Boyd, 1987).

However, the research on trait theories has yielded, at best, moderate results (Gartner, 1988, Baron, 2000). The reasons for failure are twofold. Firstly there has been problem in measuring the various concepts (Chell, 1989) and secondly these concepts may not

be good indicators of entrepreneurship (Robinson *et. al*: 1991).

The second line of research has a focus on sociology, in which sociologists have analyzed background and demographical factors as causes of successful enterprise creation. This emphasis led to finding out conditions that are responsible for emergence of entrepreneurship (Gnyawali and Fogel, 1994). The result of these studies have shown factors such as dissatisfaction with previous job or life experiences (Brockhaus, 1982), immigration (Borjas, 1986), ability to form social networks and social capital (Aldrich, 2000; Reynolds, Storey and Westhead, 1994), minority status (Hisrich and Brush, 1986; Turner and Bonacich, 1980) and host of other factors. However, both trait and sociological factors have received indifferent success.

Consistent with Baron (2004), Kumar (2007) proposed several constructs in order to establish a model. These constructs are: Threat to identity, Self-efficacy, Cognitive complexity, Cultural aspirations.

Kumar (2007)⁵⁵ makes the following question: Why would a person like to start an enterprise, especially when entrepreneurship is not preferred career option? The willingness is determined by the pulls and pushes that an individual faces while starting an enterprise (Clark and Drinkwater, 2001; Olomi et al., 2000). Pushes and pulls arise from positive or negative emotions that a person experiences. Push is negative emotion that forces a person to leave the status quo whereas Pull is a positive force that attracts person towards new path, which can be enterprise formation. In other words, a person finds his current status to be unsatisfactory and alternatives like enterprise formation become attractive (Kumar, 2007)⁵⁷.

The push factors are: job dissatisfaction, job loss, unemployment, career setbacks, saturation in the existing market, language, immigrant status, deprivation, low family income and lack of flexibility in the previous

53 Ibid. p. 582.

54 Kumar, M. (2007). Explaining entrepreneurial success: A conceptual model. *Academy of Entrepreneurship Journal*, 13 (1), 57-77

55 Ibid. p.63

56 Ibid. pp.63-64.

57 Foo, M., Uy, M., & Baron, R. (2009). How Do Feelings Influence Effort? An Empirical Study of Entrepreneurs' Affect and Venture Effort. *American Psychological Association*, 94 (4), 1086-1094.



job. In addition to the push, pull is also required to initiate action to regain identity. Various pull factors described in literature are: Need for achievement, Internal locus of control, Intentionality, Practical purpose of individual action, Demand, Common culture, Language, Self sustaining economic environment, Good policy, Infrastructure and Profit (Kumar, 2007).

Kumar (2007, p. 71) places of interest the importance of both negative emotions and positive emotions as reasons why entrepreneurs take decisions to create their organizations.

Foo, Uy and Baron (2009, p. 1086) mentions: "the start-up process is rich with affective ups and downs (Cook, 1986), and entrepreneurs are often portrayed as passionate, enthusiastic, and persistent even in the face of challenge and adversity (e.g., Cardon, Zietsma, Saporito, Matherne, & Davis, 2005). Baron (2008) noted two reasons why entrepreneurs who create new ventures experience strong affective reactions. First, the new venture environment is highly unpredictable, because the entrepreneurial process is chaotic, complex, and compressed in time (Aldrich & Martinez, 2001). Second, entrepreneurs make major investments in time, energy, and effort in their ventures and often stake their personal fortunes and even their self-esteem on the success of their ventures". Given these facts, Foo et al (2009) consider important to investigate the role of affect with respect to new ventures.

When people experience positive or negative affect, they immediately ask themselves how they feel about the specific situation (Frijda, 1986; Schwarz & Clore, 1983).

Foo et al (2009, p. 1091) found that the results of their study indicate that the entrepreneur's affect does indeed play a significant role in the process of new venture creation. Consistent with the affect-as-information perspective, they found that negative affect increases venture efforts on tasks that are immediately required. Extending this theory by drawing on the proactivity literature, they also found that positive affect increases venture

efforts on tasks beyond what is immediately required.

They also found that future temporal focus mediates the relationship between positive affect and venture effort on tasks beyond what is required.

Their findings suggest that affect serves as a source of information for entrepreneurs. As argued in the affect-as-information theory, negative affect signals that things are not going well in the venture and may lead entrepreneurs to expend more effort on venture tasks requiring immediate attention. An unexpected finding was that negative affect also increased venture efforts beyond what is immediately required. Because negative affect signals that something is wrong in the venture situation, it could lead entrepreneurs to engage in precautionary behaviors to prevent future damage to the venture (Foo et al, 2009). Positive affect signals that things are going well in the venture, and, using affect-as-information theory, one might expect the entrepreneur to reduce effort because all is well at the moment. The authors argued that positive affect should increase venture efforts. It is precisely because positive affect signals that things are going well at the moment that the entrepreneur's focus can shift to the future, and such focus motivates the entrepreneur to work harder because it promotes behaviors to achieve desired future outcomes (Karniol & Ross 1996).

The Foo and colleagues' study helps to clarify the mechanisms that underlie the link between affect and task-directed effort. Drawing on the affect-as information perspective, they show that the entrepreneurs' affect has an informational function that could influence the entrepreneurs' venture efforts.

The personality of an entrepreneur still being of interest in entrepreneurship research. However, personality is a weak predictor of venture performance (Utsch and Rauch, 2000, p. 46)⁵⁸. Today's research rediscovers the personality of an entrepreneur in dispositions (Rauch & Frese, 2000), which "intuitively appears to be related to entrepreneurship" (Crant, 1996, p. 43). These authors stated

58 Utsch, A. & Rauch, A. (2000). Innovativeness and initiative as mediators between achievement orientation and venture performance. *European Journal of Work & Organizational Psychology*, 9(1), 45-62.



also need to consider the specific behavioural processes and strategies by which personality characteristics influence the venture performance (Utsch and Rauch, 2000, p. 46). Two entrepreneurial behaviors that have emerged in studies and are central to the situation of the entrepreneur are innovativeness and initiative (Frese, 1995).

Utsch and Rauch (2000) state that many authors emphasize the importance of innovativeness as a strategy in the entrepreneurial process (Frese, 1995; Lumpkin & Dess, 1996; More, 1986; Schumpeter, 1934, 1942). Innovativeness is a behavior that characterizes entrepreneurship (Drucker, 1985; Lumpkin & Dess, 1996). Drucker (1985) refers to innovation as the result of purposeful actions and systematic work. Additionally, West and Farr (1990) defined innovation as "the intentional introduction and application within a role, group, or organization, of ideas, processes, products or procedures, new to the relevant unit of adoption, designed significantly benefit the individual the group or wider society"

Personal initiative is a behavior syndrome that includes self-starting, proactive, and long-term oriented behavior as well as persistence towards obstacles (Frese, Fay, Hilburger, Leng, & Tag, 1997; Frese, Kring, Soose, & Zempel, 1995). Successful entrepreneurs should be proactive rather than merely reactive to events (cf., Kotey & Meredith, 1997; Lumpkin & Dess, 1996). Utsch and Rauch (2000, p. 49) proposed a model based on the following statements:

- (1) Achievement orientation is positively related to innovativeness.
- (2) Achievement orientation is positively related to initiative.
- (3) Innovativeness is positively related to venture performance.
- (4) Initiative is positively related to venture performance.
- (5) The relationship between achievement orientation and venture performance is mediated through innovativeness and initiative.

The authors found that the most powerful factor in the mediation model is innovativeness. There

was a strong link from achievement orientation to innovativeness and a strong link from innovativeness to both venture performance variables. According to Utsch and Rauch (2000)⁵⁹ there are several reasons why innovativeness is important for venture performance. Entrepreneurs who try to improve their work get more feedback from their work. Therefore, they have the possibility to integrate more information. Also, innovativeness is a goal-oriented behavior and a planning behavior. All these aspects are related to job performance or venture performance (Frese, 1995; Locke & Latham, 1990; Miner et al., 1989; Schwenk & Shrader, 1993).

Otherwise, in a study, Baron (2000) proposed two questions: Do entrepreneurs think differently than others persons do? And do successful entrepreneurs differ from less successful ones in such respects? Careful examinations of the environments in which entrepreneurs operate suggests that the answers to both questions may well be "yes" Baron (2000, p. 15). Entrepreneurs often work in situations that are, by definition, new, unpredictable, complex and subject to high time pressures. Moreover, entrepreneurs' commitment to the new ventures is often intense, so they may also experience powerful emotions in connection with their activities. Together, such factors may produce severe information overload, and it is precisely under such conditions that individuals often rely on heuristics to guide their thinking and decision making, and show enhanced susceptibility to various forms of cognitive bias or error (Baron, 2000, p. 15). A general prediction, then, is that entrepreneurs may be more likely than other people to employ heuristics and to fall prey to various forms of cognitive error (e.g., overconfidence, escalation of commitment) (Baron, 1998).

According to Baron (2000, p. 15-16), Busenitz and Barney (1997) found that entrepreneurs were significantly more likely to show overconfidence in their own judgments and significantly more likely to make use of the representative heuristics than were other persons. Similarly, Palich and Bagby (1995) found that entrepreneurs tended to perceive greater potential for gain in highly uncertain

59 Ibid. p. 57



situations that nonentrepreneurs did; in essence, their perceptions of risk showed greater bias than those of other persons. These findings suggest that entrepreneurs may indeed show discriminating susceptibility to various cognitive mistakes.

According to Zhao and Seibert (2006)⁶⁰, personality variables may have an important role to play in developing theories of the entrepreneurial process, including such areas as entrepreneurial career intentions (e.g., Crant, 1996; Zhao, Seibert, & Hills, 2005), entrepreneurial cognition and opportunity recognition (e.g., Ardichvili, Cardozo, & Ray, 2003), entrepreneurial role motivation (e.g., Miner, 1993), and new venture survival (e.g., Ciavarella, Buchholtz, Riordan, Gatewood, & Stokes, 2004).

Zhao and Seibert (2006)⁶¹ state that indicative of this importance, a substantial amount of research has examined the role of personality in entrepreneurial status (ES) over the last 4 decades (Zhao and Seibert, 2006). Partially reflecting the state of personality research at the time, these studies included a confusing variety of personality variables, sometimes with unknown reliability and validity and often with little theoretical justification (Chandler & Lyon, 2001; Gartner, 1989). By the late 1980s, inconsistent and even contradictory results from the empirical studies led narrative reviewers to conclude that there is no identifiable relationship between personality and ES and that future research using the trait paradigm should therefore be abandoned (Brockhaus & Horwitz, 1986; Chell, 1985; Gartner, 1988; Robinson, Stimpson, Huefner, & Hunt, 1991).

However, Zhao and Seibert (2006) developed the first study to use the Five Factor Model (Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness) to organize the full range of personality variables that have been examined in the entrepreneurship literature. In their study, Zhao and Seibert (2006) stated the question: Do entrepreneurs differ from others in terms of their basic personality? In contradiction to

accepted conclusions in the field of entrepreneurship, their results suggest that indeed, entrepreneurs differ from those in managerial positions on four of the five fundamental dimensions of personality (Neuroticism, Openness to Experience, Agreeableness and Conscientiousness).

The personality construct with the strongest relationship to ES was Conscientiousness. Achievement motivation has been implicated as an important individual difference variable predicting entrepreneurship since the work of McClelland (1961). The Zhao and Seibert's results support McClelland's (1961) original proposition and are consistent with meta-analytical results presented by Collins et al. (2004) and Stewart and Roth (2004b). Collins et al. showed further that achievement motivation is positively related to entrepreneurial performance. These studies provide growing evidence regarding the importance of achievement motivation in entrepreneurship. There is some evidence that facets within a single primary personality dimension can have differential relationships with ES.

One of the unique contributions of their use of the FFM to organize the literature on personality and ES is their focus on the Openness to Experience dimension. The Openness construct brings together in one coherent dimension of personality such traits as imagination, creativity, intuition, and independence of judgment and thus allows drawing a single clear conclusion about this important domain of psychological functioning (2006, p. 266). Their results showed that entrepreneurs scored higher on Openness than did managers. Innovation, change, and creativity are at the core of recent definitions of entrepreneurship (e.g., Shane & Venkataraman, 2000), and these traits evoke Schumpeter's (1942/1976) classic description of the entrepreneur as the agent of "creative destruction." Despite its strong intuitive appeal, relatively little attention has been devoted to the role of this global personality dimension in studies of ES to date.

Zhao, Seibert and Hill (2005)⁶² developed a study focused to develop and test a set of

60 Zhao, H., Seibert, S. (2006) The Big Five Personality Dimensions and Entrepreneurial Status: A Meta-Analytical Review. *Journal of Applied Psychology*, 91. p. 259

61 Ibid. p. 259

62 Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology*, 90, 1265-1272.



hypotheses in which entrepreneurial self-efficacy mediates the relationship between individual-level antecedent factors and entrepreneurial intentions. In previous work, Boyd and Vozikis (1994) developed a theoretical model in which self-efficacy was proposed as a critical antecedent of entrepreneurial intentions and behavior.

The Zhao and colleagues' results provided evidence that individuals choose to become entrepreneurs (or at least formulate the intentions of doing so) most directly because they are high in entrepreneurial self-efficacy—the belief that they can succeed in this role. Also, their results supported the critical mediating role of entrepreneurial self-efficacy in entrepreneurial intentions for three of the four antecedent variables (perceptions of formal learning, entrepreneurial experience, risk propensity and gender). These results indicate that entrepreneurial self-efficacy provides a theoretical explanation for the relationship between three of the most frequently identified individual-level antecedents of entrepreneurship and subsequent intentions to become an entrepreneur (Zhao et al, 2005). The factors most amenable to change—learning and experience—each had stronger influence on self-efficacy and entrepreneurial intention than did the relatively stable characteristics of risk propensity and gender. This result suggests that efforts to increase entrepreneurial activity that are focused at the individual level may indeed be worthwhile. Gender was not related to entrepreneurial self-efficacy but was directly related to entrepreneurial intentions such that women reported lower intentions to become an entrepreneur than men (Zhao et al, 2005).

Collins, Locke and Hanges (2004)⁶³ found that achievement motivation⁶⁴ does significantly predict entrepreneurial activity across the studies that were included in their meta-analysis. The researchers argued that the relatively small variance in entrepreneurial activity that was explained by achievement

motivation might have significant implications because of the multiple opportunities for an individual to exhibit achievement-oriented behavior. Their findings suggest that achievement motivation may be particularly potent in predicting outcomes at particular levels of analysis and in specific situations.

Baum and Locke (2004) developed a study that has contributed to the revival of interest in understanding the effects of entrepreneurs' personal characteristics. Their empirical research extends and refines Baum, Locke and Smith's (2001) 2-year study of the effects of five categories of personal, organizational, and environmental factors on new venture growth that challenged entrepreneurship researchers' shift to external (organizational and environmental) explanations of new venture performance (Gartner, 1989). According to Baum and Locke (2004, p. 587), the Baum et al. (2001) study argued that entrepreneurship researchers' conclusion that personal characteristics are unimportant for new venture performance missed important indirect effects and personal characteristics other than traits.

The Baum and Locke (2004, p. 587) study supports the case for attention to entrepreneurs' personal characteristics; it involved the following six refinements, improvements, and extensions over Baum et al.'s (2001) study, using data from that study plus follow-up data.

1. Rather than using broad categories or factors, they used individual variables to analyze the separate effects and interrelationships among personal characteristics.
2. They used a 6-year follow-up compared with the previous 2-year period to provide a greater challenge to the proposed model of entrepreneurship characteristics.
3. They added the study of a situationally specific *new resource skill*⁶⁵, which is

63 Collins, C. J., Hanges, P. J., & Locke, E. A. (2004). The relationship of achievement motivation to entrepreneurial behavior: A meta-analysis. *Human Performance*, 17, 95-117.

64 The concept of need for achievement was formulated in the 1950s (McClelland, Clark, Roby and Atkinson, 1958). McClelland and his colleagues argued that high need for achievement people are more likely than low need for achievement people to engage in energetic and innovative activities that require planning for the future and entail an individual's responsibility for task outcomes.

65 New resource skill is the ability to acquire and systematize the operating resources needed to start and grow an organization



more oriented toward entrepreneurs' work than the general competencies studied by Baum et al. (2001).

4. They used an expanded measure of vision that reflected communication of the vision.
5. They included only growth-oriented founders-owners who managed their young ventures. They excluded purchasers of established businesses, absentee founders, and founders-managers of mature businesses. This is consistent with researchers' recent suggestions that entrepreneurship research focus on those who discover and exploit new products, new processes, and new ways of organizing rather than on those who manage established businesses or those who manage businesses they did not create (Davidson, Low, & Wright, 2001; Shane & Venkataraman, 2000; Zahra, Ireland, & Hitt, 2000).
6. They included both surviving and failed ventures to capture greater variance in outcomes.

According to Baum and Locke (2004)⁶⁶, researchers hoped that personality screening could help entrepreneurs avoid personal disappointment and could help nations avoid wasted resources (McClelland, 1965). However, research about the most significant traits in terms of their correlation with venture performance (need for achievement, locus of control, and risk taking propensity) found weak (though not always null) results (Aldrich & Wiedenmayer, 1993). For example, Johnson's (1990) meta-analysis concluded that need for achievement was the most significant trait predictor of new venture performance; however, he found that less than 7% of the variance in new venture performance is explained by this motive. Researchers concluded that the study of entrepreneurs' personal characteristics was a dead-end strategy (Gartner, 1989).

To cope with the challenges, Baum and Locke (2004) believed that entrepreneurs had to genuinely love their work and be tenacious

about pursuing their goals given the many obstacles they would face. Thus, passion and tenacity seemed most promising in terms of leadership and entrepreneurship theoretical support (Locke, 2000; Yukl, 1989) even though there had been no previous quantitative tests using these variables as predictors of entrepreneurship performance. Indeed, there were no empirical studies of passion. Passion for work, or love of one's work, has been identified in a qualitative analysis by Locke (2000) as a core characteristic of great wealth creators, such as Michael Bloomberg, Bill Gates, Ken Iverson (Nucor), and Mary Kay Ash (Mary Kay). These entrepreneurs confronted opportunity and challenges with fervor and ardor Baum and Locke (2004)⁶⁷.

According to Baum and Locke (2004), the enthusiasm of these entrepreneurs for a type of business was so intense that they worked through financial barriers (Gates and Iverson) and challenges to their new products and their new ways of marketing (Ash). Smilor (1997) suggested that passion is "perhaps the most observed phenomenon of the entrepreneurial process" (p. 342), and Bird (1989) noted that entrepreneurial behavior is "passionate, full of emotional energy, drive, and spirit" (pp. 7-8).

Baum and Locke (2004)⁶⁸ measured passion for work in terms of the emotions of love, attachment, and longing; however, passion can be witnessed over time in the long hours worked during venture start-up and growth phases and in the tendency for entrepreneurs to experience their venture's successes and difficulties as personal events. Leadership researchers (Bass & Stogdill, 1990; House & Shamir, 1993) have claimed that passion for work is a characteristic of successful business leaders, and passion is relevant in the entrepreneurship setting because it drives entrepreneurs to face extreme uncertainty and resource shortages (Timmons, 2000).

Tenacity, or perseverance, is a trait that involves sustaining goal-directed action and energy even when faced with obstacles (Baum

66 Baum, J. & Locke, E. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, 89(4), p.588.

67 Ibid. p. 588.

68 Ibid. p. 589



and Locke, 2004). In addition to being associated with successful leadership (Bass & Stogdill, 1990; House & Shamir, 1993; Locke, 2000), tenacity has been identified consistently as an archetypical entrepreneurship trait because the business start-up process involves confrontation of formidable barriers to market entry (Gartner, Gatewood, & Shaver, 1991). There are no quantitative tests of the effects of tenacity on venture performance (Baum and Locke, 2004).

Baum and Locke (2004) mentions that Markman, Baron, and Balkin (2001) found that inventors who started new ventures have more tenacity than inventors who chose to be employees of established organizations; however, they did not study whether tenacity is related to performance among entrepreneurs. Entrepreneurs who hold stubbornly to their goals and who hate to give up increase their chances of start-up survival and success (Timmons, 2000).

Moreover and according to Baum and Locke (2004), Smith and Smith (2000) suggested that entrepreneurs' successful efforts to arrange and organize resources are predictors of new venture success. Indeed, founders often experience limited growth because they lack new resource skill or fail to employ individuals who are skilled with resources (Timmons, 2000).

Additionally, Baum and Locke (2004)⁶⁹ propose that traits affect new resource skill. Krampe and Ericsson (1996) suggested that traits affect specific skills such as expert musical and athletic performance. Then, Baum and Locke (2004, p. 589) propose that tenacity and passion will increase entrepreneurs' skill with resource acquisition and systematization.

According, to Baum and Locke (2004), the literature suggests that at least three motivation factors impact business performance: vision, goals, and self-efficacy (Bandura, 1997; House & Shamir, 1993; Locke & Latham, 1990). They believe that communication of the vision is as important as vision content alone for motivating high venture performance. Entrepreneurs may communicate their vision through their behavior (Bandura, 1986); however, an entrepreneur's vision can

inspire more directly through speeches, pep talks, and written presentations (Tichy & Devanna, 1986). Then, they propose that highly communicated vision growth content will predict high venture growth and believe that founders who are more confident about their entrepreneurial abilities will achieve greater new venture growth.

Additionally, Baum and Locke (2004, p. 590-591)⁷⁰ proposed and supported the following:

1. The more challenging the communicated venture growth content of the entrepreneur's vision, the more challenging the goals for venture growth will be.
2. The higher the entrepreneur's self-efficacy about venture growth, the higher the goals for subsequent venture growth will be.
3. The greater the entrepreneur's passion and tenacity, the greater the communicated venture growth content of the vision will be.
4. The greater the entrepreneur's passion for work and tenacity, the higher the self-efficacy about venture growth will be.
5. The greater the entrepreneur's passion for work and tenacity, the higher the goals for subsequent venture growth will be.
6. The greater the entrepreneur's new resource skill, the greater the communicated venture growth content of the vision will be.
7. The greater the entrepreneur's new resource skill, the greater the goals for subsequent venture growth will be.
8. The greater the entrepreneur's new resource skill, the greater the self-efficacy for subsequent venture growth will be.

These researchers found that specific component variables of entrepreneurs' traits, skill, and motivation categories are significant direct or indirect predictors of venture growth for a period of 6 years following initial measurement. Findings that the situationally specific motivation concepts studied by Baum and Locke have strong direct effects on venture growth are fully consistent with previous applied psychology and social psychology research (Bandura, 1997; Baum et

69 Ibid. p. 589

70 Ibid. pp. 590-591



al., 1998; Locke & Latham, 1990). The positive effects for goals and self-efficacy are consistent with the results of hundreds of performance studies (Baum and Locke, 2004).

Vision had not only an indirect effect on growth through specific goals but also a direct effect (Baum and Locke, 2004). The researchers found that the greater the communicated venture growth content of the entrepreneur's vision, the entrepreneur's self-efficacy about venture growth, the entrepreneur's goals for venture growth, the greater the subsequent venture growth will be.

Finally, the finding that passion and tenacity had no direct effect on venture performance suggests that the weak results of previous studies of entrepreneurial traits may not have been caused by studying the wrong traits but by the fact that the traits have indirect rather than direct effects (Baum and Locke, 2004). In this respect, their results agree with Baum et al.'s (2001), in which aggregated trait effects were indirect. These results are also in concert with Locke's (2001) review in which he found that personality and other general motivational effects on performance are mediated by the situationally and task-specific factors of goals and self-efficacy.

Herron and Robinson (1993) according to the Nanda and Chatterjee's study (2007)⁷¹ establish that one of the major problems with entrepreneurship research is that mediating and moderating paths between variables have often not been examined. Studies which have tried to link personality traits and other demographic characteristics of the entrepreneur directly to outcomes, instead of testing contingent sets of relationships, have not reported significant findings (Nanda and Chatterjee, 2007, p. 6). Similarly, according to Nanda and Chatterjee (2007), Baum (1995) suggests that the limited effect of entrepreneurial personality on performance may be explained by analysis of mediation paths through competencies, motivation, strategy, and structure. Herron and Robinson (1993) suggest that personality traits do not have a strong direct effect on behavior and

performance, but are mediated by motivations and moderated by abilities, or skills of the entrepreneur. This is consistent with literature on psychological job testing which suggests that the relationship between traits and performance is not a direct one, but is moderated and mediated by other variables (Herron and Robinson, 1990).

DISCUSSION AND CONCLUSIONS

An entrepreneur is an individual who establishes and manages a new business searching profit and growth. This individual is characterized principally by innovative behavior and will use strategic management practices in the enterprise.

According to the literature review, three categories of factors associated with the decision to become an entrepreneur have emerged: psychological influences upon the individual, effects of previous experience, and personal characteristics.

Within the psychological characteristics, researchers have found: need for achievement, locus of control, risk-taking propensity, problem-solving style and innovativeness and values.

Additionally, there have been several recent intentions to summarize those traits that are necessary to become a successful entrepreneur. These research results seem to indicate that there are few psychological characteristics that distinguish the entrepreneur from managers. This conception would be true if the studies are dealing with the intention to begin an enterprise or with examining those entrepreneurs who have successfully opened their own business. The research studies not often consider the type of business the entrepreneur is involved in or the measure of the business's success.

As to the effects of previous experience, researchers conclude that decisions are made not only on the basis of personality but also with consideration of one's past experiences. The decision to become an entrepreneur must be influenced by events

⁷¹ Nanda, M., and Chatterjee, L. (2007). Entrepreneurial human capital and New venture performance: In search of the elusive link. *Academy of Entrepreneurship Journal*, 13(1), 1-22.



that have preceded the decision. There have been several studies that have examined the effect of past experience, particularly dissatisfaction with previous work experience and the existence of role models, on the decision to become an entrepreneur.

Moreover, according to other research results, personality, background and experience of the entrepreneur, which are used more often in entrepreneurship research, may not have a direct impact on organizational outcomes, but may be mediated by a combination of skills and motivations.

The literature appears to support the argument that there is no generic definition of the entrepreneur. A few general characteristics of the entrepreneur do emerge, however. The entrepreneur appears to be achievement oriented and, at least in the early stages of business venture, have internal locus of control. In general, their values approach has been to concentrate on making short-run decisions and solving immediate problems. This tendency to view the world in concrete, short-run terms could possibly result from heavy work load assumed by most entrepreneurs (Brockhaus, Horwitz, 1986).

I think that there have been several critical limitations in most of the research focused on the study of psychological of the entrepreneur. The individuals either are trying to become entrepreneurs, with no business past performance, or are entrepreneurs who have succeeded. Future research would be focused to develop a longitudinal study of prospective entrepreneurs through the creation and managing of their business. This would offer the opportunity to study the traits of both successful and unsuccessful entrepreneurs.

Another limitation of the research is that the types of business are not often identified. A future research address would be the comparison of entrepreneurs in several different industries or economic sectors.

Finally, several research results seem to show that personality theory provides a complete theory of entrepreneurship or even exhausts the range of topics that can be explored at the level of the individual entrepreneur. Rather, other results show that personality must be considered as one important component of a multidimensional model of the variables,

processes, and environmental factors affecting entrepreneurship and new venture creation.

Additionally, the review may suggest two outlines of future research that might need to be considered. First, personality traits variables are interesting and relevant when these variables consider the specific work situation and context for an entrepreneur. And second, to explain entrepreneurial behavior is necessary to consider achievement orientation.

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