

UNDERSTANDING THE MODERATING EFFECT OF CULTURE AND SELF-EFFICACY ON ENTREPRENEURIAL INTENTIONS

By

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CHAPTER 1

INTRODUCTION

1.1 CONTEXT OF THE STUDY

On account of the wide scope of the different disciplines consulted for the conceptual foundations of this thesis, the main difficulty has been to recognize what to leave out. The thesis reflects large parts of psychology and sociology, and consequently to reflect suitable subject breadth is difficult. Literature in entrepreneurship and other fields was investigated for a general overview of concepts, constructs, and operational definitions that were appropriately linked to the study objectives, since basing variables on conceptually and theoretically sound foundations of other disciplines helps increase the intellectual legitimacy of entrepreneurship.

Conceptual arguments for the link between culture and entrepreneurship have existed for decades (Schumpeter, 1947, Weber, 1948, McClelland, 1961). However the results of empirical research have been mixed. Some studies suggest entrepreneurs share a common set of values regardless of culture (McGrath, MacMillan & Scheinberg, 1992), while other studies support the notion that culture will affect entrepreneurship (Busenitz & Lau, 1996; Shane, 1994).

Depicting a model of cultures' association with entrepreneurship, Hayton George, Zahra (2002:46) provide a broad overview of the potential pattern of relationships between national culture, contextual factors, and entrepreneurial outcomes.

Culture is depicted as a moderator in the relationship between contextual factors (institutional and economic) and entrepreneurial outcomes. This suggests that culture acts as a catalyst rather than a causal agent of entrepreneurial outcomes. This line of reasoning is exemplified in a study demonstrating the moderating effect of culture on the relationship between entrepreneurial orientation and

strategic alliance portfolio extensiveness (Marino, Strandholm, Steensma, Weaver, 2002).

Equally relevant is that several studies (e.g. Mitchell, Busenitz et al, 2002) have focused on entrepreneurial motives, values, beliefs, and cognitions to examine the relationship between national culture and entrepreneurial characteristics and traits. For some time entrepreneurship scholars have been searching for constructs of individual characteristics that are unique to entrepreneurs. Since self-efficacy reliably predicts the scope of career options considered, occupational interests, perseverance in difficult fields, and personal effectiveness, it has been related to the pursuit of entrepreneurial activity (Markman, Balkin & Baron, 2002).

Perceived self-efficacy is the strongest single predictor of career choice (Bandura, 1986) and self reported competencies predict entrepreneurial performance (Chandler & Jansen, 1992).

Although Bandura (1986:391) reasoned that self-efficacy influence is partially socially constructed and that such construction may differ as a function of national culture, little direct evidence exists connecting cultural values to self-efficacy. Some researchers claim that self efficacy is influenced by different sources of information that are more or less persuasive depending on a persons cultural values, this suggests that a cultural contingency approach is needed for research on self efficacy (Earley, 1994).

It could be argued that to attempt to integrate the concept of culture with psychological theories is a 'abstract, disputed, and inherently irresolvable process', (Cooper & Denner, 1998:563) and yet doing so is critical to theory building and understanding multicultural societies. This controversy by whether historical and societal processes are responsible for creating distinct communities and situations, that may render individual meanings as trivial, or

what makes humans similar, is pivotal to thesis. Trying to study entrepreneurial motivation without insight into culture is an idle pursuit.

To be scientific is to be parsimonious and consequently thesis examines those variables believed to be most relevant to entrepreneurial belief (self-efficacy) and only one of many contextual factors (culture) that may explain entrepreneurial behavior. Although there can be wide variety of contextual as well as individual factors that influence the entrepreneurs choice, the role of entrepreneurial self-efficacy has been emphasized as key antecedent (Boyd & Vozikis, 1994; Krueger & Brazeal, 1994; Chen, Greene & Crick, 1998; Markman, Balkin & Baron, 2002).

In view of culture as an additional variable is included to explain entrepreneurial intentions, perhaps the best researched quantitative based model for distinguishing between national cultures is by Hofstede (1980, 2001).

The central theme of this thesis is integrated into the broader framework of existing theory and research, consequently enlarging the scholarship of the field. Seeking to blend psychological, cultural, and entrepreneurial theory this thesis investigates existing knowledge, major implications, and controversies via a focused review of knowledge demanding the research question, with formal testing of the hypotheses formulated.

1.2 IMPORTANCE OF STUDY

Based on the Global Entrepreneurship Monitor (GEM) report (Foxcroft, Wood, Kew, Herrington, Segal, 2002) South Africa has the lowest Total Entrepreneurship Activity (TEA) rate of any developing country measured, which means that South Africa has the smallest proportion of entrepreneurs compared to any other developing country. This is significant in a country where entrepreneurial ventures account for one third of total employment.

Moreover from the 3 500 people in the S.A. GEM (2002) sample, 26.4% believed that they had the necessary entrepreneurial skills while 73.6% said they did not. This self belief factor which influences involvement in entrepreneurial activity manifests in that those who believed they had requisite skills were eight times more likely to start a business.

Many individuals in transitional economies may have the desire to pursue entrepreneurial ventures but are not engaging not because they do not have knowledge and skills but because they are lacking in self-belief. However this general label – beliefs provides little point of reference for hypothesis testing, and for the purposes of thesis is operationalised through the self-efficacy construct and related to entrepreneurial intentions.

Additional to this research is needed to add to existing theory and argue for importance of belief/cognitive issues in entrepreneurship.

Learned attitudes such a self-efficacy are vital to this discipline; How do we learn it? How do we teach it? (Krueger, Reilly, Carsrud, 2000:426). To be motivated to act, potential entrepreneurs must perceive themselves as capable and psychologically equipped to function.

Economically disadvantaged communities often suffer from deficits in self-efficacy. Rabow, Barkman and Kessler (1983) show that victims of poverty visibly reflect the symptoms of learned helplessness; and this resonates with South African socio cultural conditions and reinforces the vital role of self-efficacy in empowerment and capacity building.

Evidence exists that both macroeconomic (national economic growth rates) and enduring national characteristics have an impact on the level of entrepreneurship activity, with research indicating a positive association between entrepreneurship and necessity entrepreneurship. (A distinction is made by Foxcroft et al [2000] between entrepreneurs who say are they are pursuing a business opportunity - referred to as “opportunity entrepreneurs” and those who say they are involved in

an entrepreneurial effort because they have no other choice of work - referred to as “necessity entrepreneurs”).

It is also acknowledged that substantial variation exists in entrepreneurial activity between countries, with cultural and social norms emphasized as the major strength and weakness of entrepreneurial support structures (Reynolds et al 2002:25). This is precisely what thesis attempts to unravel, i.e. what cultural values lead to higher levels of entrepreneurship?

Instead of advancing this cultural entrepreneurial variation enigma, the hypotheses formulated is not whether one group/ nation is more entrepreneurial than another, but which cultural dimensions will lead to increased entrepreneurial intentions.

This thesis will assess the effect of culture and self-efficacy on entrepreneurship, which has not been accounted for by previous research. Thesis makes several important contributions by; empirically testing hypothesis where much speculation exists; pointing to several areas of interest to entrepreneurs and policy makers; and demonstrating the complementary nature of selected constructs and their combined explanatory potential in understanding entrepreneurship.

1.3 OBJECTIVES OF STUDY

While the relationship between self-efficacy and entrepreneurial intentions has been extensively documented (Krueger et al, 2000 & Krueger & Brazeal, 1994), thesis seeks to extend this relationship by understanding the moderating effect of cultural dimensions and self efficacy on entrepreneurial intentions i.e. the influence culture and self efficacy have on entrepreneurial intentions.

In order from most integrative to more specific the following are pertinent exploratory objectives for this type of research:

- To better understand beliefs and intentions of potential entrepreneurs within a cultural context.
- To examine the significance of cultural dimensions and self-efficacy in predicting entrepreneurial intentions.
- To understand the measurement protocol of self-efficacy and culture.
- To understand what dimensions of culture contribute to higher self-efficacy and subsequently higher entrepreneurial intentions, i.e. cultural values either promote or restrain entrepreneurial intentions.
- More specifically to understand how the variance in subjects' perception of culture is reflected in perceptions of self-efficacy and subsequently entrepreneurial intentions.

Although the hypotheses propose a causal effect of cultural dimensions and self-efficacy on entrepreneurial intentions, ontological constraints are acknowledged, i.e. the objects of study may prevent real understanding; the ability to 'predict' the complexity of human behavior in an open system is a recognized shortcoming.

Based on previous research pertaining to the abovementioned objectives relevant hypotheses are formulated. The following configuration of cultural values for the entrepreneur on Hofstede's dimensions is offered. *Ceteris paribus*, the greater the cultural distance from the ideal type the lower the level of entrepreneurship (Hayton et al, 2002:34).

Null Hypothesis 1. The moderating effect of the cultural dimensions and self-efficacy perceptions does not increase entrepreneurial intentions.

Ho1a. Higher individualism vs. collectivism and increased self-efficacy does not increase entrepreneurial intentions.

- Ho1b. Lower uncertainty avoidance and increased self-efficacy does not increase entrepreneurial intentions.
- Ho1c. Higher masculinity vs. femininity and increased self-efficacy does not increase entrepreneurial intentions.
- Ho1d. Lower power distance and increased self-efficacy does not increase entrepreneurial intentions.
- Ho1e. Higher long-term orientation vs. short-term orientation and increased self-efficacy does not increase entrepreneurial intentions.

Alternative Hypothesis 1. The moderating effect of the cultural dimensions and self-efficacy increases entrepreneurial intentions.

- H1a. Moderate individualism and collectivism and increased self-efficacy increases entrepreneurial intentions.
- H1b. Lower uncertainty avoidance and increased self-efficacy increases entrepreneurial intentions.
- H1c. Higher masculinity and increased self-efficacy increases entrepreneurial intentions.
- H1d. Lower power distance and increased self-efficacy increases entrepreneurial intentions.
- H1e. Higher long-term orientation and increased self-efficacy increases entrepreneurial intentions.

1.4 OUTLINE OF PROPOSED STUDY

This introductory chapter outlines the basis of the study undertaken. The context of the study is framed and the relevance of the selected constructs is described. The objectives of the study are delineated and hypotheses are formulated on the basis of previous research findings that follow in the subsequent chapters.

Chapter 2 provides a detailed literature review of the self-efficacy and entrepreneurial intentions constructs in the context of entrepreneurial motivation. Theoretical frameworks surrounding self-efficacy are discussed as well as the methodology used to measure this construct. A comprehensive measure based on these theoretical and empirical underpinnings is then formulated.

Chapter 3 investigates cultural influences on entrepreneurship and identifies measurement protocol for this construct. The design to assess cultural values is discussed and appropriate links to entrepreneurship is emphasised.

Chapter 4 provides the specifics of the research methodology and the data analysis techniques utilized.

Chapter 5 details the empirical research results with presentation and interpretations of the findings. Limitations of research are presented here.

Chapter 6 provides substance in the form of conclusions, implications and imperatives for further research.

Note: Although the hypotheses are formulated in chapter 1, the rationale leading to this formulation is encompassed in chapters 2 and 3 and 4.

Measuring instruments are formulated in the literature review chapters instead of the research design chapter; this allows for a more succinct and integrated review of established and subsequently proposed measures.

CHAPTER 2

LITERATURE REVIEW ON ENTREPRENEURIAL INTENTIONS AND SELF-EFFICACY

2.1 INTRODUCTION

Scholarly literature on entrepreneurial behavior, attitudes and intentions is substantial. At the forefront of research are the big five personality dimensions, i.e. risk taking, need for achievement, need for autonomy, locus of control, and self-efficacy (Vecchio, 2003). Since the theoretical foundation of the proposed hypotheses is positioned in the self-efficacy literature a review of some of the important conceptual issues regarding self-efficacy is discussed. Nonetheless it remains beyond the scope of this section to systematically delineate the entire reach of the self-efficacy construct. In order to reflect scholarly contribution, what follows is based extensively on the rich insights that are evident in Bandura's (1982, 1986, 1997, 2001) and others (Gist & Mitchell, 1992; Krueger & Brazeal, 1994; Vancouver et al, 2002; Markman et al, 2002) work.

Further the thesis makes use of well-developed theory base (i.e. entrepreneurial intentions and self- efficacy is in multiple disciplines), so it seems reasonable to expand this theory's domain to include founding as a predicted cognitive consequence.

Methods to collect secondary data included a literature review to provide the context, and a literature search to identify critical variables. Computerised searches of specialised databases initiated the collection of studies. Searches were also conducted using reference sections of articles on self-efficacy, intentions and entrepreneurship.

2.2 ENTREPRENEURIAL EMPOWERMENT

Modern business is often characterized as a turbulent and dynamic, with individuals under such conditions needing to be entrepreneurial. However instead of becoming adaptable, flexible, autonomous, and entrepreneurial, individuals in rapidly changing, complex environments tend to react in the opposite way. Whetten, Cameron, and Woods (1994) suggest empowerment is the key to developing characteristics required for such a changing environment. To empower means to enable, and to develop a sense of self-efficacy. Empowerment has been defined as the motivational concept of self-efficacy (Conger & Kanungo, 1988). Researchers however ignore the concept of self-efficacy despite its importance and proven robustness at predicting both general and specific behavior (Krueger et al, 2000:418).

Although there is much talk about empowerment as a way for betterment of personal lives, it has become a misused construct, which according to Bandura

is heavily infused with promotional hype, naive grandiosity, and virtually every brand of political rhetoric. Empowerment is not something bestowed through edict; it is gained through development of personal efficacy that enables people to take advantage of opportunities and to remove environmental constraints (1997:477).

It would not be presumptuous to say that South Africa needs to empower individuals to have the potential to be entrepreneurs and to do this entail fostering empowerment amongst individuals (especially for sectors of population such as women and previously disadvantaged groups who could be perceived as lacking entrepreneurial traditions) by increasing perceptions of self-efficacy. Policy makers could benefit from understanding that government initiatives will affect business formations only if these policies are perceived in a way that

influences intentions (Krueger et al, 2000). Government initiatives, which focus on a do it alone basis, tend to stimulate an entitlement mentality to emerge.

Although the terms entrepreneurship, small business, innovation, and black economic empowerment are often used loosely and interchangeably they are not equivalent and in the context of present day political and legal precedents to enhance black ownership in S.A companies an urgent need exists to examine the relationship between entrepreneurship and black economic empowerment.

By acknowledging the legacy of apartheid education it becomes apparent that damage was done to self-esteem, motivation, and creativity of individuals; with many schools continuing in present day to inculcate a mindset that undermines entrepreneurship. Building entrepreneurial capacity at schools requires inculcating a can do attitude as well as more learners developing self-belief towards entrepreneurial aspirations and skills (Driver et al, 2001). The success of entrepreneurs is dependent on personal motivation and will to succeed.

It has been suggested that the emergence of potential entrepreneurs in transitional economies depends on the entrepreneurial potential of the society, which is, in turn, largely a function of systematic efforts of developing entrepreneurs with a high entrepreneurial self-efficacy. Instead of hoping for a massive capital infusion to improve business prospects, transitional economies may well be advised to implement formal self-efficacy programs to foster individual initiative for entrepreneurial empowerment (Luthans, Stajkovic, & Ibrayeva, 2000).

2.3 CONCEPTUAL FOUNDATIONS

Entrepreneurship has no great theories; at best concepts are taken from other fields and then incorporated into process models. Entrepreneur models are fragile and parameters are always changing and predictions are crude (Bygrave I, 1989:13).

Starting a new venture is not a smooth, continuous, orderly process but disjointed, discontinuous, unique event and we need to understand the change in the antecedent variables that trigger the event. It may happen that small differences in the initial conditions produce very great ones in the final phenomena (Bygrave II, 1989:14). In a simplistic form - entrepreneurs cause entrepreneurship, i.e. $E = f(e)$; entrepreneurship (E) is a function of entrepreneurs (e). Initial factor that sets into motion entrepreneurial activity is the psychological predisposition of the entrepreneurs. Hence concern is with the actor in the entrepreneurial drama. This individual level variation among people in their willingness to pursue opportunities is a major premise of thesis. By emphasizing individual differences, i.e. people are different and these differences matter, entrepreneurship can emerge as a legitimate field with its own distinctive domain (Venkataraman, 1997:123).

With regard to entrepreneurship educators, they have the unique task to integrate insights from various fields and disciplines. The greatest asset is popularity of entrepreneurship in classroom; this is the driving force that has pushed discipline forward. Therefore the first order of business should be to protect and enhance this asset (Low, 2001:11).

However to define entrepreneurship research as merely teaching support is to abandon goal of explaining the role of entrepreneurship in furthering economic progress.

In order to identify constructs that are relevant and concise, some categorical statements from entrepreneurship researchers are noted:

- Unit of analysis – its been suggested if unable to agree on definition of entrepreneurship it is unlikely to have variables with precise definitions, instruments with clear specifications and populations with exact demarcations (Bygrave I, 1989:14).
- Unwillingness to define boundaries of the field and unwillingness to discuss unstated assumptions of field will continue to promote a weak paradigm for entrepreneurship (Gartner 2001: 8).
- Researches need to focus on describing specific concrete, identifiable activities and then develop frameworks to show how these activities are related to higher order constructs about entrepreneurship (Gartner, Bird & Starr, 1992:20).

Based on the above suggestions it appears imperative that definitions of key terms are necessary to provide a clear sense of the study's specific research focus. Gartner (1989:32) suggests carefully limiting focus to one type of entrepreneur. Same for who is non-entrepreneur. If everyone else who is not entrepreneur then this leads to significant problems in controlling for and comparing the variance among and between the samples of entrepreneur and non-entrepreneur (see chapter 4 – research design).

Since the study is concerned with entrepreneurial intentions, an attempt to reformulate the definitions of entrepreneurs already made by researchers in the field seems unnecessary. No new definitions are proposed; this is superfluous as so many already exist. Instead measures of entrepreneurial intentions are emphasised. This is consistent with thesis design methodology and hypotheses in that the main concern is with student populations and their intentions towards entrepreneurship.

In summary new ventures are direct outcomes of individual intentions and actions. Shane and Venkataraman (2001:1) suggest research focus on the central question of the entrepreneur - why, when and how some people and not others discover and exploit opportunities, and further to understand the development of human capital. Individuals and opportunities are first order forces explaining entrepreneurship and environmental forces second order, which might moderate the effects of individual and opportunities but they cannot explain it.

2.3.1 AGENTIC THEORY

Building on these conceptual foundations of understanding the role of individuals in venture creation, it seems logical to assume that entrepreneurship involves human agency. Bandura (2001) states to be an agent is to intentionally make things happen by ones own actions. The entire entrepreneurial process unfolds because individual entrepreneurs act and are motivated to pursue opportunities.

Research on brain development underscores the influential role that agentic theory plays in shaping the neuronal and functional structure of the brain. By regulating their motivation and activities people produce experiences that form the functional neurological substrate of symbolic, social, psychomotor and other skills. The nature of these experiences is heavily dependent on type of social and physical environments people select and construct.

Mental events are brain activities but physicality does not imply reduction of psychology to biology. The field of psychology should be articulating a broad vision of human beings, not a reductive fragmentary one (Bandura, 2001).

In delineating how the psychological discipline is proceeding down two major divergent routes, Bandura distinguishes between two lines of inquiry.

- The microanalysis of inner workings of the mind in cognitive processing; which is studied disembodied from interpersonal life and self-reflectiveness. Here motivational factors that govern the manner and level of personal engagement are simply taken for granted.
- The second line of theorising focuses on macro analytical workings of socially situated factors in human development. Here human functioning is analysed as socially interdependent, richly contextualised, and conditionally orchestrated within the dynamics of various societal subsystems and their complex interplay. The mechanisms linking sociostructural factors to action in this macro analytical approach remain largely unexplained.

It seems a comprehensive theory is needed that merges this analytic dualism by integrating personal and social foci of causation within a unified causal structure.

Therefore when studying entrepreneurial behavior, it is important to consider contextual issues and identify processes that explain rather than describe the entrepreneur phenomena (Low & MacMillan, 1988).

Psychodynamic theory, where human behavior is the manifestation of the dynamic interplay of the inner forces, has been criticised on both conceptual and empirical grounds (Bandura, 1986:2). The inner determinants are inferred from the very behavior it supposedly caused, creating interpretive circularities in which the description becomes the causal explanation, for instance the achievement motive is deduced from achievement behavior. There is no limit to the number of drives one can find from inferring them from behavior. However if causal propositions concerning drives are to be empirically testable then drives should be specified by the antecedent conditions, rather than being inferred from behavior that they supposedly produce. Although psychodynamic theories have a wide acceptance and while their conceptual adequacy can be debated their empirical limitations cannot be ignored indefinitely. They provide ready interpretations of behavior that has already happened but are deficient in

predicting future behavior.

This is precisely why self-efficacy as an antecedent to entrepreneurial intentions is selected. Intention cannot be inferred from action otherwise it would provide a circular explanation in which the same event is taken as evidence of both cause and effect. Rather intention must be defined independently of the behavior it regulates. In Social Cognitive Theory (SCT) intention plays a prominent role in the self-regulation of behavior. Intentions whether expressed in determination to engage in a specific course or to perform, increase the likelihood that sought futures will be realised (Bandura, 1986:467).

2.3.2 ENTREPRENEURIAL INTENTIONS

Intentionality is rooted in socio-psychology theories of behavior; it underlies theories of rationality in strategic management and serves as the *raison d'être* for teaching business and entrepreneurship in particular.

The term entrepreneurial intentions has affinity with other frequently used terms designating the same meaning; e.g. entrepreneurial awareness, entrepreneurial potential, aspiring entrepreneurs, entrepreneurial proclivity, entrepreneurial propensity, and entrepreneurial orientation -EO (more concerned with the entrepreneurial process, with recent research suggesting that the sub dimensions of EO may vary independently [Kreiser et al, 2002]). However to avoid becoming engrossed in verbal calisthenics, the term entrepreneurial intention (operationalised empirically) is used.

According to Bandura (2001) an intention is a representation of a future course of action to be performed; it is not simply an expectation of future actions but a proactive commitment to bringing them about. Intentions and actions are different aspects of a functional relation separated in time. Intentions center on plans of actions. Absent intention, action is unlikely. Intentions represent the belief that one will perform certain behavior. Logically, intent precedes action.

Future states cannot be causes of current motivation or action. The capability for self-motivation and purposive action is rooted in cognitive activity. The projected future can be brought into the present through forethought, however. In cognitive motivation people motivate themselves and guide their actions anticipatory through the exercise of forethought (Bandura, 1997:122).

Future directed plans be rarely specified in full details at the outset; it would require omniscience to anticipate every situation. Initial partial intentions are adjusted, revised, refined or even reconsidered in the face of new information during execution of intention.

Other self-regulatory aspects, other than forethought, of agency enter into the successful implementation of intentions. They are self-reactiveness, self-reflectiveness and self-efficacy. As previously defined - perceived self-efficacy occupies the pivotal role in the causal structure of social cognitive theory because self-efficacy beliefs affect adaptation and change not only in their own right but also through the impact on other determinants. Such beliefs influence whether people think pessimistically or optimistically, and in ways that are self-enhancing or self-hindering. On the self-enhancing side the efforts center on cultivating personal resources enabling individuals to exploit promising fortuities.

This view is further reinforced by Krueger and Dickson (1994) that an increase in self-efficacy increases perceptions of opportunity i.e. individuals who perceive themselves as entrepreneurial capable are expected to be alert and sensitive to opportunity and be able to take advantage of such opportunity if worthwhile. "We do not find opportunities, we construct them. Opportunities are in the eye of the beholder; this tells us that perceptions are critical " (Krueger, 2000:6).

What this reinforces is that an individual's perception, rather than objective reality, explains the decision to start a venture (Krueger, 1993; Krueger & Brazeal, 1994). Thus entrepreneurship is exactly the type of planned behavior for which intention models are suited (Krueger et al, 2000).

Review of the literature finds strong arguments for intentions, with existing applications of intentional models and self-efficacy showing consistent support (Krueger & Brazeal, 1994). Intentions are single best predictor of any planned behavior, including entrepreneurship. Intention models predict behavior better than either individual (e.g. personality) or situational (e.g. employment status) variables and predictive power is critical to better post hoc explanations of entrepreneurial behavior (Krueger et al, 2000).

Krueger (1993) defines entrepreneurial intentions as a commitment to starting a new business. This is accepted as a more encompassing concept than merely to own a business, since the creation of a venture is central to the definition of entrepreneurship as embodied for this thesis.

Starting a business or initiating a new venture is often described as purposive, and intentional career choice with the role of entrepreneurial self-efficacy been emphasised as a key antecedent (Chen et al, 1998:297). By understanding the antecedents of intentions increases understanding of intended behavior.

Attitudes influence behavior by their impact on intentions. Intentions and attitudes depend on the situation and person. Investigating the effect attitudes had on intention to start on business, Douglas and Shepherd (2002) found that the intention to be an entrepreneur is stronger for those with more positive attitudes to risk and independence.

Furthermore path analysis confirms that the correlation between attitudes and behavior is fully explained by attitude – intentions, and intentions – behavior links (Kim & Hunter, 1993). Intentional behavior helps explain why many entrepreneurs decide to start a business long before they scan for opportunities (Krueger et al, 2000).

Two intention-based models that are widely recognized, and offer a well-developed theory base that increases rigor of research, are:

Ajzen's (1991) theory of planned behavior (developed and validated in social psychology) and Shapero's (1982) model of entrepreneurial event (not well tested). These models are compared by Krueger et al (2000), who suggests that by studying these models, which overlap considerably, it is realized that to encourage economic development in the form of new enterprises it is important to first increase perceptions of feasibility and desirability. Evidence is persuasive that perceived credibility, perceived desirability, and propensity to act explain well over half the variance in intentions toward entrepreneurship, with feasibility perceptions explaining the most (Krueger & Brazeal, 1994). This suggests raising entrepreneurial self-efficacy will raise perceptions of venture feasibility thus increasing the perception of opportunity. As self-efficacy is closest to action, and action intentionality, it can be used to predict and study the entrepreneur's behavior choice and persistence.

Provision is also made for exogenous factors in these models – factors such as individual differences and purely situational influences operate indirectly on intentions by changing these antecedents not by directly affecting intentions. Moreover demographic characteristics indirectly relate to entrepreneurial intentions, for e.g. having a successful entrepreneurial parent is associated with entrepreneurial intentions (Crant, 1996). Education has also been found to be linked to higher levels of entrepreneurship. Research indicates that ethnic and gender differences in career choice are largely explained by self-efficacy differences. Raising entrepreneurial efficacies will raise perceptions of venture feasibility, thus increasing the perception of opportunity. Much as self-efficacy predicts opportunity recognition, self-efficacy perceptions are also pivotal to self-employment intentions (Scherer, Adams, Carley, & Wiebe, 1989).

Another intentions model, Bird's model (not empirically validated) of entrepreneurial intentionality, modified and strengthened by Boyd and Vozikis (1994) suggests that individual self-efficacy can explain the development of

entrepreneurial intentions and also stipulates the conditions under which these intentions may be translated into action.

Intentions are also an unbiased predictor of action, even when time lags exist, thus a strong intention to start a venture will result in an eventual attempt, even if other more immediate circumstances may cause a long delay (Krueger et al, 2000).

All of these models provide evidence that the construct of self-efficacy plays an important role as an antecedent for promoting the perceived feasibility of ventures. These formal theory driven models are anchored by perceived self-efficacy and are invaluable to understanding intentions toward planned, intentional behavior like entrepreneurship. (Gist & Mitchell, 1992:8).

Due to the variations alternative intentional models exhibit (sometimes with inconsistent definition of entrepreneurial intention), a cumulative approach based on Ajzen's and Shapero's models as compared by Krueger et al (2000), are selected and integrated for the purposes of measuring intentions and will be detailed in section 2.7.

Notwithstanding the above, findings by Kolvereid (1996) suggest that entrepreneurial activity in a nation not only depends on feasibility and desirability of entrepreneurship, but also upon the desirability and feasibility of employment, e.g., entrepreneurial actions may decrease if employees are given increased job security, and shorter working hours; under such circumstances being self employed is a less desirable alternative.

It is important to note that perceived self-efficacy would moderate the relationship between the development of entrepreneurial intentions and the likelihood that these intentions will result in entrepreneurial behavior, i.e. entrepreneurial intentions will not always result in new venture creation (Boyd & Vozikis, 1994). As no empirical evidence exists that intentions subsequently results in venture

formation, Erikson (2002:282) conceptualizes entrepreneurial commitment, which is an extended concept of intentions as it includes the commitment to act; this may serve as a bridge between entrepreneurial intentions and actual entrepreneurial behavior i.e. strong intentions vs. weak commitments, with the difference being the emotional, intellectual and physical energy invested in intentions direction.

2.3.3 SELF - EFFICACY

Efficacy beliefs are the foundation of human agency. SCT theory approaches enhancement of human agency, whether in individual or collective form in terms of enablement (Bandura, 1997:477).

Such beliefs influence what challenges to undertake and how long to persevere in face of obstacles. Self-efficacy is an important motivational construct that influences individual choices, goals, emotional reactions, effort, coping and persistence. It refers to individuals' convictions about his/her abilities, and consequently an important set of cognitions is self-efficacy or beliefs about one's capacity to perform at designated levels (Bandura, 1986, 1997, 2001).

Social cognitive theory (SCT) favors the concept of interaction based on triadic reciprocity. Here behavior, cognitive and other personal factors, and environmental influences all operate interactively as determinants of each other; the term reciprocal refers to mutual action between causal factors (Bandura, 1986:23). However reciprocity does not mean symmetry in the strength of bi-directional influences. The relative influences exerted by the three sets of interacting factors will vary across different activities, different individuals, and different circumstances. Most contemporary theories subscribe to some form of interactional model of causality that portrays behavior as product of personal and situational influences. For example Minniti and Bygrave (1999) propose that for each individual, the relative return to entrepreneurship is a function of the set of personal characteristics, the objective socioeconomic circumstances, and the rate of entrepreneurship itself.

Bandura asserts that peoples conceptions about themselves and the nature of things are developed and verified through four different processes; direct experience, vicarious experience, judgment voiced by others, and derivation of further knowledge by using rules of inference. External influences also play a role, thus while its true that conceptions govern behavior, conceptions themselves are partly fashioned from direct or socially mediated transactions with the environment. A distinction is made between SCT and the self-efficacy component of this theory – which operates in concert with other determinants to govern human thought, motivation and action (Bandura, 1997:34).

Two decades of empirical research have generated a great number of studies that demonstrated the positive relationship between self-efficacy and different motivational and behavioral outcomes in clinical, educational, and organizational settings. Self-efficacy has also become an important construct in behavioral management and Bandura (1982) has defined perceived self-efficacy as ‘peoples judgments of their capabilities to organize and execute courses of action required to attain designated types of performance’ (Bandura, 1986:391).

2.3.3.1 Generative capability of self-efficacy.

Self-efficacy involves a generative capability in which cognitive, social, and behavior sub skills are organized into integrated courses of action; this requires perseverant effort and self doubters are quick to abort this generative process if initial efforts are deficient (Bandura, 1997). Thus there is a marked difference between possessing sub skills and being able to use them well under diverse circumstances. Competent functioning requires both skills and self-beliefs of efficacy; operative efficacy calls for continuously improving multiple sub skills to manage ever-changing circumstances, most of which contain ambiguous, unpredictable and often stressful elements.

Efficacy beliefs alone can rise and sustain motivation but will not produce

newfangled performances if sub- skills necessary are completely lacking. Of course people do not hold vacuous efficacy beliefs devoid of any underlying capability. Nor does perceived self-efficacy involve only a one-way dependence on sub- skills. But through the proactive exercise of efficacy belief in self-development, capacity is converted to capability.

Resilient self-efficacy enables people to override repeated rejection, early rejection is the rule rather than the exception in many creative endeavors and the more innovative the work the greater the risk of rejection.

Optimistic sense of efficacy contributes to psychological well-being, and this is demonstrated when the skills and beliefs of anxious and depressed people have been compared with those of people who are unburdened by such problems. The groups differ little in their actual skills but they differ substantially in the beliefs about their efficacy.

Thus the depressed appear as realists, the non-depressed as confident distortionists (Bandura, 1997:74).

A criticism could be made at this stage that the self-efficacy construct as an anthem to empowerment may overly depend on Pollyannaish (ie. cheerful) positive thinking expressions. However Bandura draws the distinction between “wistful optimism” versus “resolute striving”, in that the phrases do not convey the same meaning.

As affirmed previously self-efficacy is linked to initiating and persisting at behavior under high uncertainty, to setting higher goals and to reducing threat rigidity and learned helplessness (Bandura, 1986), all of which resonates with desired entrepreneurial behavior. To be blunt: no self-efficacy, no behavior (Krueger & Brazeal, 1994).

Although hundreds of studies have found a positive relationship between self efficacy and performance, studies such as Vancouver et al (2002) found a strong positive correlation between self efficacy and performance, at the person level of

analysis, yet at a within person, across time level of analysis, self efficacy is negatively related to subsequent performance. Manipulating self-efficacy through intervention led to overconfidence and increased likelihood of committing logic errors. Although self-efficacy was negatively related to performance and positively related to errors, it does not imply that high self-efficacy is necessarily detrimental.

Unlike personality traits self-efficacy can be developed through training and modeling. Efficacy judgments are task specific and regulate behavior by determining task choices, effort and persistence. Self-efficacy also facilitates learning and task performance particularly early in the learning process (Stevens & Gist, 1997). Self-efficacy can also change as result of learning, experience and feedback (Gist & Mitchell, 1992:4).

Entrepreneurship literature has found that persons who believe that their skill and ability set is adequate for achieving success with new venture are motivated to exert necessary effort. This link to motivation is now examined.

2.4 ENTREPRENEURIAL MOTIVATIONAL

Previous results on the study of motivation in context of entrepreneurship in terms of basic concepts such as achievement need, risk taking, tolerance of ambiguity, and locus of control have yielded mixed results. Results have been more consistent for constructs such as goal setting and self-efficacy. For instance self-efficacy has also been identified as a key motivational component in Ford's (1996) model of individual creative action.

Self efficacy goes beyond the traditional motivational approaches and in itself provides an eclectic extension of these approaches and could, based on its predictive power and demonstrated strong relationship with work performance (Stajkovic & Luthans, 1998), have considerable implications for understanding and harnessing entrepreneurial behavior.

An assumption this thesis yields to is that people can be motivated –Mc Gregors (1960) Theory Y, indeed management as a science and organizational behavior specifically, would be unnecessary was this assumption not true. Motivations of entrepreneurs do in fact influence the direction and nature of business ventures.

Personal motives affect both start-up decisions and the start-up process. Models that delineate how motivations influence the entrepreneurial process are copious: A model used by Shane, Locke and Collins (2003) explains how the relative magnitude of how much a particular motivator matters might vary depending on which part of the entrepreneurial process is being investigated.

Another model that extends existing motivational models to integrate the start up decision with issues of strategy formulation and implementation, and sustained entrepreneurial behavior is portrayed by Naffziger et al (1994:33). The process described in this model identifies how a new firm takes shape, how it is managed, and what leads to sustained entrepreneurship.

In explaining the role that expectancy of entrepreneurial performance has on perceived ability in motivating persons to persevere on an entrepreneurial task (which was investigated via a world wide web based experiment) it became evident the feedback that the individual receives regarding their entrepreneurial ability changed expectancies regarding future business start-ups, but did not alter task effort or quality of performance (Gatewood et al, 2002).

These illustrations are mentioned insofar that the concept of entrepreneurial motivation was introduced to extend current thinking in the field of traditional motivation. Other relevant motivational concepts linked to entrepreneurial behavior, from prior qualitative studies include: independence, drive, and egoistic passion (Shane et al, 2003).

While the goal of study is to explain those factors that motivate an individual to select an entrepreneurial career (high entrepreneurial intentions), due to the complexity of the entrepreneurial process, the aim was to propose and evaluate one factor, self-efficacy, which may play an important role.

Turning to the less conventional psychoanalytical school of thought, the darker side of entrepreneurship becomes exposed together with the devastating effect this may have on entrepreneurs. The almost complete absence of case material on entrepreneurship in psychoanalytical literature stands in contrast to the contributions on the subject from other disciplines e.g. economics, sociology, psychology, and organizational behavior (de Vries, 1996). Although a few clinically orientated studies concerned with entrepreneurial personality exist, the studies are more concerned with the entrepreneurs' family background.

Moreover studies indicate that the behavior of a number of entrepreneurs is not based on a secure sense of self-esteem and identity. The enterprise becomes a highly emotionally charged entity. It also seems that many of these people are unable to function in structured situations. Many entrepreneur individuals counteract feelings of low self-esteem, inferiority, and helplessness through excessive control and activity, as well as narcissistic behavior. All too often the entrepreneur self-destructs because of such behavior patterns.

Appearances can be deceptive, as entrepreneur's behavior may be more of a reactive nature. Self-belief does not necessarily ensure success but self-disbelief assuredly spawns failure.

Nonetheless however fascinating these conjectures may be, their conclusions are necessary superficial as the studies only touch the surface of intrapsychic life of the entrepreneur. They fail to unravel the complex mosaic of interpersonal relationships that creates the 'inner theatre' of these people (de Vries, 1996:857). Truly clinical case histories are missing. Obviously the individual who should be most concerned with the inner theatre is entrepreneur himself. Entrepreneurs who resort to manic defense - who never ask themselves why they are running - are in for an eventual shock. It is also important to point out that entrepreneurs do not necessarily have greater personal problems than other people. Like other people they have own unique way of dealing with the vicissitudes of life. They are certainly not excessively conventional normopaths, however the mix of the

creative and the irrational seems to make many entrepreneurs successful. How to understand what energies are liberated in venture creation and what unconscious forces are unleashed remains an important inquiry in this field; this will surely not be revealed or understood through mere self-reporting.

As to the fear factor being the motivator in entrepreneurial drive, it seems more instructive to analyze the motivational benefits of optimistic personal efficacy in terms of positive, affirmative processes than in terms of negative defensive ones rooted in pretending to be what one is not. In this latter case human striving becomes largely a matter of defensive impression management (which echoes more with corporate management action rather than entrepreneurs). Evidence that people believe they exercise some control in ambiguous situations even where there is no actual control does not mean that they are habitual self-deceivers. The issue arises as to whether an unwarranted belief of personal control involves self-deception. Because of the incompatibility of being simultaneously a deceiver and the one deceived, literal self-deception cannot exist. Efforts to resolve the paradox of how one can be the agent and the object of deception at the same time have met with little success.

The substantial body of evidence reviewed by Bandura (1997) supports the view that the optimistic sense of efficacy fosters psychological well-being and personal accomplishments through self-challenge, commitment, motivational involvement, rather than through fearful self-protectiveness.

Seligman (1991) similarly espouses the cognitive view of psychology i.e. people feel the way they think. Seligman asserts people can change their negative beliefs to non-negative beliefs that encourage action. Seligman admits that being pessimistic is usually more accurate, realistic pessimism is practical for evaluating risks with substantial consequences. Optimism is more applicable for less serious endeavors.

2.4.1 ENTREPRENEURIAL COGNITIONS AND PERSONALITY

Entrepreneurial intentions are the result of motivation and cognitions, the latter including intellect, ability and skills. Discussing the recent application of ideas and concepts from cognitive sciences and how it has gained currency within entrepreneurship research, Mitchell, Busenitz et al (2002) re-examine the people side of entrepreneurship (see their integrated findings of several articles).

By relying on rigorous methodology and well-established psychological constructs relevant to understanding characteristics of entrepreneurs, Markman et al (2002) extend the ongoing work of several researchers by seeking to augment and create closer conceptual links between entrepreneurship and cognitions. By focusing on two dimensions previously validated by psychologists but not adequately applied in entrepreneurship research i.e. general self-efficacy and regretful thinking, they find patent inventors (sample) tended to have significantly higher self-efficacy and stronger regrets about business opportunities. The authors suggest since self efficacy reliably predicts the scope of career options considered, occupational interests, perseverance in difficult fields, and personal effectiveness, that it is also related to the pursuit of entrepreneurship.

By asking whether becoming an entrepreneur is a question of personality structure, Brandstatter (1997) finds that personality characteristics of people interested in setting up their own business (intentions) are similar to those of the founders. In addition, independent and emotionally stable business owners were more satisfied with their roles as entrepreneurs, and with the success of their businesses. This makes the argument that having established a business drastically changes self-interpretation less convincing. What this means in practice is that in evaluating effective economic policy programs one needs to take into account the typical (and desirable) personality structure of the target group in order to avoid misguided programs.

Analyzing the entrepreneurial personality based on a configurational approach; a personality pattern characterized by a high need for achievement, high internal locus of control, and moderate risk taking was revealed by Korunka et al (2003), which confirms the outcomes of previous research.

Investigating the potential of psychological constructs to predict a proclivity for entrepreneurship, Stewart et al's (1998:191) findings coincide with the differences exhibited between entrepreneurs and small business owners, which is distinguished as: an entrepreneur capitalizes on innovative combinations of resources for purposes of profit and growth using strategic management practices, alternatively the small business owner operates business as extension of his personality to further personal goals and produce family income. It is further reasoned that relatively high achievement motivation, risk taking propensity, and preference for innovation are coupled with an emphasis on profit and growth. The small business owner appears to be a conceptual link between the entrepreneur and the manager exhibiting characteristics there are likened more to the manager than to the entrepreneur. Overall these results indicate significant differences in two types of owners' proclivity toward entrepreneurship, suggesting caution is necessary with operational definitions and sampling frames.

A comprehensive study that includes all variables of psychological importance in entrepreneurial success (Rauch & Frese, 2000) makes a start by contributing quantitatively to this field of qualitative studies. Although a proper meta analysis is not possible due to the quality and insufficient reporting of key statistics, the authors find there are clear, albeit small, relationships between need for achievement, locus of control, and start ups. The small correlations together with the large variance between the different studies suggest that moderators should be included in models of entrepreneurial success.

It is clear by now that those who have a high sense of efficacy view situations as presenting realisable opportunities. Although it remains important to remember

that efficacy beliefs are patterned differently in different individuals, to say that personality disposition fosters efficacy belief is to say that efficacious disposition causes itself.

Viewed superficially, self-efficacy appears similar to self-esteem, expectancy, locus of control, and attribution concepts of personality and motivation, however self-efficacy beliefs emphasize an assessment capability (can I do this?) as opposed to a concern with outcome expectations (if I do this what will happen?) To understand and apply self-efficacy effectively we need to understand these subtle differences and see how the self-efficacy construct can be incorporated more fully into entrepreneurship.

In seeking to answer do entrepreneurs have universal cognitions distinct from those of other business people, Mitchell, Smith et al (2002) find that culture does indeed matter in entrepreneurship? They try to reinforce the notion of a universal culture of entrepreneurship, defined by commonality in the centrality of higher order constructs such as arrangements, willingness, and ability cognitive scripts (Mitchell et al 2000), by seeking to answer to what extent do entrepreneurial cognitions differ by national culture. Differences on several cognition constructs are observed, and the pattern of country representation within an empirical developed set of entrepreneurial archetypes does differ among countries. This cultural link is now discussed.

2.5 CULTURE AND SELF-EFFICACY

2.5.1 COLLECTIVE EFFICACY.

Collective efficacy is of course rooted in self-efficacy (Bandura, 1997). Studies of perceived collective efficacy demonstrate that it exists as a group attribute. It could be argued, with reference to the S.A. apartheid struggle, that the maintenance of some measure of personal efficacy in the face of system obstinacy helped to sustain engagement in political/labor affairs. It is also noted that such collective efforts are supported by the internal payoff of self-respect

rather than by material benefits (Bandura, 1997).

In a generative form of collective efficacy, people create self-governing communities, where they educate themselves, manage own affairs, and create own businesses that provide opportunities and resources for self-development. These self-governing communities approach tenacious problems of living, from a different perspective than do professional service systems, for the latter tend to view such difficulties as symptoms of underlying pathology or inherent defects.

These remediations, which are centered on the individual, focus on symptom management, and fortifying personal vulnerabilities with coping skills to withstand environmental demands. The collective enablement approach is more socially orientated that builds on strengths rather than dwelling on deficits, and encompasses socio- structural factors among the sources and remedies for human problems. Not only by people changing themselves but by also creating living environments that remove impediments and expand opportunities achieves this. Self-governing communities are more successful in changing people lives for the better than are professional services (Bandura, 1997:504).

2.5.2 CULTURAL VALUES AND EFFICACY BELIEFS

People live their lives neither entirely autonomously nor entirely interdependently in any society. Self-conceptions embody both personal and collective affects although their reactive emphasis will vary depending on the type of culture in which people are raised. Efficacy beliefs have a similar multi-faceted character. Some writers regard any reference to self as reflecting an individualistic bias in psychological theorising and pit the self against collectivism. In this jaundiced view the exercise of personal control is portrayed as an act of self-indulgence. In point of fact personal efficacy can serve varied purposes many of which subordinate self-interest to the benefits of others, e.g. Nelson Mandela provides a prominent example of self-sacrifice in the exercise of unassailable personal efficacy.

Bandura (2001) maintains that theorising about human agency and collectivities is replete with contentious dualisms, these dualities include self-centered versus communality, and individualism versus collectivism. Such duality pits psychological theories and sociostructural theories as rival conceptions of human behavior, or as representing different levels and temporal proximity of causation. To reiterate, dualistic antithesis incorrectly equates self-efficacy with individualism and pits it against collectivism at cultural level.

Human functioning is rooted in social systems; therefore personal agency operates within a broad network of social structure influences i.e. it involves a dynamic interplay between individuals and social systems. In SCT, social structural factors operate through psychological mechanisms of the self-system to produce behavioral effects. The self-system is not merely a conduit for social structure influences. The self is socially constituted; by exercising self-influence human agent operates generatively and proactively, not just reactively to shape the character of their social systems.

In examining variables predicting self efficacy and job seeking activities of unemployed ethnic youths from diverse cultural backgrounds, Drew and Kristy (2000) find that whereas self-esteem and acceptance by the host culture were significant predictors of self efficacy; the major predictors of job seeking were, the extent to which the ethnic youth felt accepted by members of the dominant culture; and secondly the difference between their cultural backgrounds and the dominant host culture. Such findings emphasize how social cultural forces invariably affect behavior through psychological mechanisms.

Cross-cultural research attests to the general functional value of efficacy beliefs Earley (1994) and Erez and Earley (1993). However cultural embeddeness shapes the way in which efficacy beliefs are developed, the purpose, which they are put and the social structure arrangements through which they are best

exercised.

Regardless of cultural background, people achieve the greatest personal efficacy and productivity when their psychological orientation is congruent with the structure of the social system. Both at the societal and individual level of analysis, a strong perceived efficacy fosters high group effort and performance attainments.

2.6 SELF-EFFICACY LINKED TO ENTREPRENEURSHIP

As the literature review has indicated, self-efficacy is anchored in a model of entrepreneurial potential; is proposed as the entrepreneurial self-efficacy (ESE) construct, and is apparent in the Entrepreneurial Capital formula. These links are now examined:

- Entrepreneurial potential: The notion of potential seems causally prior to intentions (Krueger & Brazeal, 1994), one may have great potential without any corresponding intentions. Krueger & Brazeal (1994) offer a model of potential, which situates Shapero's model within the context of the intentions process. One important conclusion by way of their model remains the primacy of perceived feasibility (self- efficacy). The valuable role self-efficacy has towards understanding intentions have been acknowledged in the preceding section.
- Entrepreneurial Self-Efficacy (ESE): Chen et al (1998:295) propose ESE construct to predict likelihood of individual being an entrepreneur i.e. entrepreneurial self-efficacy refers to strengths of person's belief that he/she capable of successfully performing various roles and tasks of entrepreneur. Those with high ESE seem to assess the environment as more opportunistic rather than fraught with risks; they belief in ability to influence achievement of goals; and they perceive a low probability of failure. Their study based on two surveys found that ESE was positively

related to the intention to set up one's own business. The study also provides preliminary evidence that ESE has the potential to be an individual construct. Since ESE refers to cognitive evaluations of personal capabilities in reference to specific tasks of entrepreneurship, it achieves the entrepreneurial distinctiveness that is both individual and contextual.

More specifically convergent and discriminant validity of ESE with a related but more general construct, locus of control was established. Their research also revealed that component ESE scores were related to various criterion variables differently and it was the self-efficacy of innovation and risk taking that differentiated founders from non-founders. As interpreted by Chen et al (1998), the self-efficacy perspective is highly appropriate for the study of the entrepreneur. As a task specific construct rather than a global disposition, it helps address problem of lack of specificity in previous entrepreneurial personality research, and as a belief of one's career capabilities, ESE is relatively more general than task self-efficacy.

- Entrepreneurial Capital: Conceptually it may be assumed that the components of intentional models coincide with Ulrich's (1998) definition of intellectual capital as a multiplicative function of competencies and commitments; with Erikson (2002) extending this to include entrepreneur competencies and entrepreneur commitment to render entrepreneur capital i.e. $E \text{ Capital} = E \text{ compet} \times E \text{ commit}$. Based on this formulation entrepreneurial capital can also be regarded as the present value (PV) of generated future entrepreneurial behaviour (Erikson, 2002:277), which perhaps is the most important resource and main competitive advantage of an emerging venture.
- How much of the competence components have been developed elsewhere as part of a larger framework, can be viewed in light of entrepreneurial intentions literature discussed previously, i.e. perceived

entrepreneurial competence is same as Bandura's perceived self-efficacy that reflects confidence in ability to perform a series of tasks. Similarly although under different labels, evidence of three general cognitive processes – arrangements (feasibility), willingness (propensity to act), and ability (desirability) - has been found in the testing of intentional models (Mitchell et al, 2000). Furthermore components of entrepreneurial capital also correspond to one of the oldest truisms in management, i.e. work of Lawler (1973) who summarized the determinants of task performance as follows:

1. Performance = Ability X Motivation.
2. Ability = Aptitude X Training.
3. Motivation= Desire X Commitment.

All formulas have multiplication function suggesting all elements are essential.

Contemplating the above links, there seems to be considerable overlap between the self-efficacy construct as described in the intentional models, ESE, and the entrepreneurial capital concept. Examining these studies suggests that there are indeed strong relationships between the variables under study.

Such studies may tentatively suggest that entrepreneurs must have perceptions of high self-efficacy to face challenges of modern society. Since these studies propose individuals embarking on entrepreneurial careers, (very close to creation of new enterprise), have high self efficacy, then by evaluating these subjects entrepreneurial beliefs *before* the creation of new enterprise, the study is more likely to show causality (Gartner, 1989).

2.7 ENTREPRENEURIAL INTENTIONS MEASURE

Following the substantive literature review, the focus is now on constructing measures to reflect this theory driven approach. Based on Krueger et al's (2000) comparative study of entrepreneurial intention models, the measure of entrepreneurial intentions will reflect this theory driven approach and comprise of measures used in both models and specifically from the Theory of Planned Behavior model (although items have been adapted to suit purposes of this study) – these are intentions, attitudes, expected utilities, normative beliefs and motives (important for ethnic groups where cultural differences are hypothesized in social norms). Global and specific perceived feasibility, which is empirically linked to self-efficacy, are measured separately within the self-efficacy section). Eleven items are measured along a 5-point Likert scale, which reflect the following variables.

- Intentions: “what is the probability you’ll start your own business in the next 5 years?”
- Attitudes toward the act: “is starting your own business an attractive idea to you?”
- Expected utilities: “rate the perceived value of the following 5 outcomes of starting your business and the likelihood of occurring—autonomy, stress, financial performance, personal satisfaction, personal quality of life”. This measure is the sum of the values weighted by the expected likelihood’s (each item using a 5 point Likert scale).
- Normative beliefs and motives: “rate the perceived reactions of four different normative influences (friends, parents/family, mentor/role model, significant other) to the subject of starting your own business and the perceived importance of their opinions”. This measure sums the strengths of the perceived reactions weighted by the perceived importance. It may be that social norms are influenced by cultural differences. This could mean that social norms might be confounded with Hofstede’s dimensions or instead be complementary to cultural dimensions, as both may serve to moderate the impact of self-efficacy on intentions.

- Perceived feasibility (in both models) is empirically linked to and overlaps Bandura's self-efficacy construct, and thus is measured with the self-efficacy instrument developed in next section. Perceived feasibility was correlated with self-efficacy ($R^2 = 0.100$, $p < 0.002$) in Krueger et al's (2000) comparative study.

In support of this proposed measure, similar research advocates the use of such same items to measure intentions. Kolvereid and Moen (1997) question if the behavior of business graduates is affected by entrepreneurship education. Their findings suggest that differences between students may be caused by individual idiosyncrasy not covered by control variables included in most studies, more specifically they advise to include measures of role model, attitude, norms and perceived behavioral control, since these factors have been found to be related to entrepreneurial intentions.

2.8 ENTREPRENEURIAL SELF-EFFICACY MEASURE

What follows might seem excessive in terms of some aspects of research design; however it is surely easier to recover from lapses in data analysis than from failures caused by ill planned instrumentation or ill executed data collection (Cavusgil & Das, 1997).

Some examples of scales utilized in other studies that enhance rigor of the self-efficacy construct are:

- Results from Maurer and Andrews' (2000:965) study of three types of scales that can be used to measure self-efficacy, provide empirically similar results; scores had similar reliability and validity and were strongly related, although important differences were also discovered.
- The internal structure of scores from Bandura's Multidimensional Scales of Perceived Self Efficacy was tested by Choi, Fuqua, and Griffin (2001,

- 475), with results indicating that scores from nearly all items aligned almost exclusively with theoretically and empirically derived dimensions.
- Robbins (1985) reviewed a generic career self-efficacy scale that offered evidence on both convergent and discriminant validity.
 - When comparing a self-efficacy model and expectancy model of occupational preferences for college males and females, Wheeler (1983,73) discovered that these models have separate and independent relationships to occupational preference. The self-efficacy scale constructed in their study revealed both moderately high internal consistency and test retest reliability.

This section examines the construct and measurement protocol of self-efficacy. The construct of self-efficacy is intricately related to its measurement. Empirical measures of self-efficacy (antecedents of perceived feasibility) assess beliefs that one can personally execute a given behavior, or not. As self-efficacy is closest to action and action intentionally it can be used to predict and study entrepreneur's behavior choice and persistence; as Krueger and Dickson (1994) demonstrate a strong perception of self-efficacy increases the number of opportunities an individual will perceive.

2.8.1 RELIABILITY AND VALIDITY OF SELF EFFICACY MEASURE

This thesis relies on questionnaires that have been previously tested with references to published reports on its reliability and validity. As new scales and items without reports on reliability of the measures result in responses that vary and there are no consistencies. Reliability is a bare minimum for valid studies of personality, attitudes and values (Bird, 1989:378).

It has been reported that measuring self-efficacy is relatively straightforward; one can use simple self-report measures (Bandura, 1986). An important issue argued

by Gist and Mitchell (1992), regarding the measurement protocol is whether subjects can accurately predict their own behavior.

The methodological issue inherent in this question is the construct validity of self-efficacy. When measuring self-efficacy an individual is asked to predict performance yet the criterion to which self-efficacy should be related most is also performance.

Therefore predictive validity for self-efficacy is conceptually similar to the way in which construct would be assessed and support for predictive validity can be construed as partial support for construct validity.

Evidence of validity relies heavily on construct validation. Self-efficacy measures gain validity from their demonstrated success in predicting the effects specified by the social cognitive theory in which the efficacy factor is embedded.

The theory predicts a variety of effects on, thought; affect, action, and motivation, hence there is no single validity coefficient.

In developing efficacy scales researchers draw a conceptual analysis and expert knowledge of what it takes to succeed in a given pursuits. In the standard methodology for measuring efficacy beliefs, individuals are presented with items portraying different levels of past demands and they rate the strength of a belief in the ability to execute the requisite activities. Efficacy scales are unipolar ranging from 0 to a maximum strength. They do not include negative numbers because a judgment of complete incapability – 0 has no lower gradations.

The items are phrased in terms of 'can do' rather than 'will do'; 'can do' is a judgment of capability 'will do' is a statement of intention. Perceived self-efficacy is a major determinant of intention but the two-constructs are conceptual and empirically separable, and are treated as separate variables for this thesis.

Efficacy beliefs affect performance both directly and by influencing intentions.

The view that efficacy beliefs are intentions is conceptually incoherent and empirically disputed.

Efficacy beliefs do not share the major properties ascribed to personality traits; this raises questions about the appropriateness of some of the trait based psychometric procedures for evaluating self-efficacy measures. For example the issue of reliability as estimated by invariance over time; efficacy beliefs do not necessarily remain immutable overtime. Depending on factors to be reviewed later, such beliefs vary in their changeability. Although usually quite durable, an accurate measure of perceived self-efficacy does not demand high temporal stability. In new undertakings, such as venture creation, people have insufficient experience to assess the dependability of their self-appraisals and hence must infer their performance capability from knowledge of what they can do in other situations, which can be misleading.

Correlations between self efficacy and career intent range from 0.3 to 0.6 which is better than most predictors used in entrepreneurial research, such as locus of control (Bandura, 1986).

2.8.2 OPERATIONALIZING THE SELF EFFICACY MEASURE

To achieve explanatory and predictive power measures, personal efficacy must be tailored to domains of functioning and must represent gradations of task demands within those domains.

Bandura (1997) distinguishes among three levels of generality of assessment. The most specific level measuring perceived self efficacy for particular performance under specific set of conditions; the intermediate level for task performance is within the same activity domain under a class of conditions; and most general and global levels not specifying activities or conditions under which they must be performed.

The optimal level of generality at which self-efficacy is assessed varies depending on what one seeks to predict and degree of foreknowledge of the situational demands. An efficacy belief is not a decontextualised trait upon which situational conditions act. Nor do social circumstances 'determine' efficacy beliefs.

Bandura warns that self-efficacy is commonly misconstrued, as being concerned solely with specific behavior in specific situations. This is an erroneous characterization. Domain particularity does not necessarily mean behavioral specificity.

Self-efficacy beliefs vary on three dimensions, magnitude (particular level of task difficulties- this is formed by summing the total yes's), strength (certainty of successfully performing a particular level or task difficulties – this is formed by summing the confidence ratings across all performance levels), and generality (the extent to which magnitude and strength beliefs generalize across tasks and situations).

When operationally measuring self-efficacy, researchers typically ask respondents whether they can perform at specific levels on a specific task (yes or no) and they ask for degree of confidence in that endorsement (rated on a near continuous scale from total uncertainty to total certainty) at each specific performance level (Bandura, 1986; Lee & Bobko, 1994).

Many studies have restricted themselves to the magnitude and strength dimensions and conceptualized self-efficacy as a task specific or state like construct (SSE). To some degree the entrepreneurial self-efficacy (ESE) construct, reflects this predicament. As mentioned Chen et al (1998:295) propose ESE construct to predict likelihood of individual being an entrepreneur i.e. ESE refers to strengths of person's belief that he/she capable of successfully performing various roles and tasks of entrepreneur.

However the ESE is relatively more general than task self- efficacy; Chen et al (1998:301) proposed that self-efficacy should therefore be fairly stable yet not immutable, this allows entrepreneurs to modify and enhance their self efficacy while interacting with their environment.

It has been reported that measurement of self-efficacy does pose some unique questions, since self-efficacy beliefs are domain specific, it is important to consider what is being measured and how. Research has begun to identify which competencies are critical to launching and to maintaining a venture (Chandler & Jansen, 1992). Moreover when situations people are likely to encounter are not fully known, one could predict better for common situations than for uncommon ones (Bandura, 1997:50).

Equally important, based on the analytical distinction between the studies of the 'behavior of entrepreneurs' versus 'entrepreneurial behavior', Mc Clelland 's (1961) distinguishes between entrepreneurial status (position in society) and role (behavior required of an occupant of that status). An empirical study of the actual behavior of entrepreneurs, rather than a theoretical analysis of role requirements could lead one to study irrelevant behaviors (i.e. non entrepreneurial behavior). Although arriving at the components of the entrepreneurial role is no easy task since any activity might be performed in an entrepreneurial way, attention is directed on those role characteristics where there is a high degree of agreement. Therefore interest is in the entrepreneurial role behavior as an ideal, which corresponds with the instrument used in this study, particularly as developed by Chen et al (1998) who apply predetermined tasks and roles to the entrepreneurial domain.

More specifically one way of measuring self-efficacy of a broader domain, such as entrepreneurship, as Chen et al (1998) did with ESE, is to develop a conceptual framework of task requirements on the basis of which self-efficacy of a domain is aggregated from self- efficacy of various constituent sub domains.

ESE was measured in 26 roles and tasks. Factor analysis revealed five factors accounting for 56.6% of variance in their study, and these will be used – marketing, innovation, management, risk taking, and financial control. Twenty-two out of the 26 items loaded on the five factors, all at or above the level of 0.40. The total score of ESE was calculated by averaging items within each factor. The Cronbach alpha for this scale was 0.89. Their research indicates that the summary ESE is sufficient for predicting entrepreneurial choice. It also established that component ESE scores are related to various criterion variables differently and it is the self-efficacy of innovation and risk taking that differentiated founders from non-founders.

Convergent and discriminant validity of ESE with a related but more general construct also becomes manifest in their study. Regarding the discriminant validity, ESE predicts entrepreneurial career decisions better than locus of control (Chen et al, 1998:310). Hence there is preliminary evidence that ESE has the potential to be an individual construct.

More recently research (Chen, Gully, & Eden, 2001:63) has become interested in the more trait like generality of self- efficacy which has been termed general self efficacy (GSE), it is defined as one's beliefs in one's overall competence to affect requisite performance across a wide variety of achievement situations. Thus GSE captures differences among individuals in the tendency to view them as capable of meeting task demands in a broad array of contexts. Conceivably the GSE construct has applicability to entrepreneurship and has been employed to link inventors with new venture formation (Markman, Balkin, Baron, 2002).

Self-efficacy is concerned not with the number of skills you have but with what you believe you can do with what you have under a variety of the circumstances (Bandura, 1997). A summation of the decontextualised perceived efficacy for sub-skills would provide a misleading measure of perceived operative capability; sensitive measures of efficacy beliefs link operative capabilities to levels of

challenge in particular domains of functioning i.e., efficacy beliefs may be high for the sub skills but low for their integrated use in taxing situations.

The point at issue is not whether efficacy beliefs can be generalized to some extent but rather the processes through which generality occurs and how this can be measured (Bandura, 1997:53). It is been suggested that specific self –efficacy (SSE) is a motivational state and GSE is a motivational trait. Both however share similar antecedents, i.e. direct experience, vicarious experience, verbal persuasion, and psychological states. GSE emerges over one's lifespan as one accumulates successes and failures across different task domains. GSE is strongly related to other self-evaluation constructs including self-esteem and locus of control, and has been found to have particular high correlations with self-esteem. One important outcome of GSE is SSE, with GSE positively influencing SSE across tasks and situations. The tendency to feel efficacious across tasks and situations spills over into specific situations as reflected by positive relationship between GSE and SSE for variety of tasks.

Relevant to this relationship between general and specific efficacy, Tierney and Farmer (2002:1145) find that the complexity to creativity link can be positive, which contradicts the general notion that complexity obstructs efficacy development. These findings support the propositions that multiple efficacies are at play for performance requiring creativity, an essential component of entrepreneurial behavior.

Disregard of GSE may exact a price in terms of theoretical comprehensiveness, and proportion of variance explained in motivational research. However the utility of GSE for both theory and practice is being questioned; moreover as previously mentioned, GSE is not distinct from self-esteem and also it has been claimed that GSE measures bear little or no relation either to efficacy beliefs related to particular activity domains (SSE), or to behavior.

Scherer et al (1982) developed a 17-item -general self-efficacy scale (SGSE) to measure a general set of expectations that individual carries into new situations, SGSE has been widely used in more than 200 published studies and developed for clinical and personality research. Internal consistency reliability for SGSE has been high, with $\alpha = .76$ to $.89$, but the test retest reliability has yielded low estimate $r = .23$ across only 3 weeks. Establishing the stability of any GSE measure is crucial given that GSE is conceptualized as a stable trait like construct.

There is a serious discrepancy between the conceptualisation of GSE as an undifferentiated belief in ones generalised ability as a unitary construct on the one hand and the multifactorial structure of the SGSE scale on the other. The multi-dimensionality of the SGSE is problematic for several reasons; conceptually behavior initiation, effort, and persistence are not self-efficacy rather they are its consequences (Bandura, 1997).

In fact Shearer et al stated that the SGSE items were constructed to cover the range of behavior implications of self-efficacy beliefs, i.e. they tap the outcomes of efficacy perceptions. This suggests a low content validity of the SGSE scale as well as that internal consistency reliability estimate of such a GSE scale may be contaminated by the relationship between GSE and its consequences (Chen et al, 2001).

It is often not known whether predictions made by the SGSE scale are attributable to GSE or to other related constructs such as self-esteem. Both GSE and self-esteem are general self-evaluation constructs, however GSE is a more motivational construct whereas global self-esteem is a more affective construct; several researchers have founded that GSE is highly correlated with Rosenberg's (1965) self-esteem scale. This suggests that there is limited discriminant validity for distinguishing the SGSE from measures of self-esteem. However it has been demonstrated, that measures can be highly correlated yet capture distinct constructs that demonstrate different patterns of relationships with other variables.

In consolidation, the SGSE is an omnibus scale that stops at major management functions of accounting, production, marketing, human resources, and general organization without delineating the specific tasks within each function.

Self-efficacy theory acknowledges the diversity of human capabilities, thus it treats the efficacy belief system not as omnibus trait but as a differentiated set of self-beliefs linked to distinct realms of functioning.

Because the SGSE measure violates the basic assumptions of the multidimensional nature of self efficacy construct, Chen et al (2001) propose a new GSE (NGSE); they develop the NGSE, and then compare its psychological properties, and validity to that of the SGSE. NGSE has higher construct validity, demonstrates higher reliability, predicts specific self-efficacy (SSE) for a variety of tasks in various contexts, and moderates the influence of previous performance on subsequent SSE formation. The NGSE related to SSE for a variety of tasks and in different settings, and did so for two national cultures. The NGSE is unidimensional and there is evidence that indicates the NGSE has high content validity i.e. NGSE items are conceptually more consistent with GSE than with self-esteem.

In addition Chen et al (2001) repeatedly found additional items added little or nothing to the current measure in terms of reliability and content or predictive validity, the only contribution of adding items beyond the eight included in the NGSE scale was to artificially inflate coefficient alpha by adding items that were redundant with items already included and therefore highly intercorrelated with them. Based on item face validity, interitem correlations, and factor loadings, eight items were retained that best capture GSE. Principal component analysis yielded a single factor solution for these eight NGSE items on all three occasions (0.87, 0.88, and 0.85 respectively). Reliability coefficient alpha was 0.86 (study 1).

Based on the aforementioned information, NGSE is not proposed as a substitute or replacement for SSE, or in this case ESE, rather it is a supplement that is predicted to be useful when the performance under scrutiny is generalized, such as for entrepreneurship. Particularly, for entrepreneurship, measuring dispositional constructs that can predict motivational reactions and behaviors across a variety of work domains becomes increasingly important; here the NGSE has much relevance.

Consequently it has been suggested that future studies should continue to evaluate the relative contribution of GSE and SSE to improve understanding. Nonetheless some social cognitive researches may take exception that trait like characteristics are important determinants of proximal cognition, motivation, behavior, and performance.

The items for self-efficacy assessment are incorporated from Chen et al' s (1998) ESE scale as well as the revised general efficacy scale, the NGSE scale (Chen et al, 2001). More specifically the ESE instrument (slightly modified) will consist of roles /tasks - with respondents indicating degree of certainty (strength) in performing these roles/tasks on a 5 point scale, as well as their magnitudes (yes /no). The 8-item NGSE scale (also measured on a five-point scale) is to be combined together with the ESE scale. Self-efficacy magnitude (not measured by existing ESE & NGSE) and strength as separate non-combined measures appear to have generally weaker predictive validates and correlations than self-efficacy composites have (Lee & Bobko, 1994). In other words a composite measure of self-efficacy, which includes magnitude and strength is used in this study. Preliminary instructions to respondents will establish appropriate judgmental set by asking them to judge their capabilities as of now not of their expected futures (Bandura, 1997:44).

2.9 CONTRA ARGUMENTS: ENTREPRENEURIAL INTENTIONS AND SELF EFFICACY

A study of this nature is limited by the early stage of development in theory of the entrepreneurial self-efficacy construct and subsequent measures. Some compromises and standard criticisms similar studies manifest are:

- Despite criticisms of focusing research on actor instead of the act of new venture creation, continued interest in determining what motivates some individuals to initiate new venture while others do not persists.
- Research that is possibly at odds with self-efficacy as a way of enhancing entrepreneurship, states that certain cognitive biases lead individuals to perceive less risk, which leads to overconfidence, illusion of control, hubris, escalation of commitment and counterfactual thinking (Simon, Houghton, & Aquino, 1999). This in turn may not be beneficial for new venture formation. The very spirit that facilitates change could lead the potential entrepreneur to take needless risks. This can do spirit is a double-edged sword however because on the other hand it may be beneficial because lower risk perception is sometimes necessary early in the decision making process to generate commitment needed for success.
- As has been previously suggested entrepreneurial self-efficacy can be predictive, but it does not negate the importance of the functional link between behavior and its consequences i.e. there is still a need for appropriate mechanisms and rewards together with augmenting government policies in place for entrepreneurship to flourish.
- Entrepreneurship can only be understood as a constellation of personality features of which self-efficacy is only part of. Studies could also be extended to include contextual factors such as legislation and education systems to help explain venture formation i.e. to understand entrepreneurship as a holistic process.
- From a postmodernist perspective it has been purported that the

conception of self-efficacy theory as positioning the self as the center and originator of change, and controlling one's own belief systems, depoliticizes social mechanisms of control. Franzblau and Moore (2001) argue that self-efficacy theory emanates from culturally positioned and ideological informed functional trends in US psychology, which perpetuates a blaming the victim approach to social problems. The authors attempt a reconstruction of self-efficacy within the context of inequality by examining how gender and disability are manipulated in self-efficacy research and they show efficacy is socially construed, and is more about control over and access to power. Bandura (1997:33), although not in direct response to this allegation, insists the idea that acknowledgement of human efficacy may invite victimization rests on simplistic view of causal processors laced with moral overtones. Human life paths are determined by multiple authored influences and within this multi-causality people can improve their lives by exercising influence in areas in which they have some control. Regardless of whether efforts are directed at personal or social betterment the over-riding message of self-efficacy is enablement not personal blame.

More specifically some research design and conceptual problems identified in the reviewed studies and which thesis is susceptible to are:

- Cross-sectional studies do not allow testing of causal relations. There is a need to examine relationships between entrepreneurial self-efficacy, intentions and behavior over time. Such research seems particularly important since Katz (1990) questioned the intention behavior link. Furthermore Kolvereid (1996) suggests this type of research should include a measure of family background, since its possible that tracking models are more appropriate to predict behavior rather than intentions. Hence it may be instructive to heed Boyd and Vozikis's (1994:10) call for longitudinal designs in order to ascertain if the intention subsequently results in entrepreneurial behavior.

- Social desirability. Since entrepreneurship is a charismatically charged term, and carries a lot of social weight - to reduce social desirability in reporting high self-efficacy the survey instruction emphasized honesty for self-assessment.
- Premises used in most studies are that individuals differ with respect to their abilities to identify and exploit opportunities e.g. Erikson (2002:277) believes that entrepreneurial capital can be treated as a heterogeneous resource i.e. the inequality of human capital in society.
- Because of the heterogeneous nature of entrepreneurship in terms of motivational diversity it is suggested that in order to distinguish what is truly attributable to an individual entrepreneur from the idiosyncrasies of the particular opportunity, the individual must be studied across several new enterprise efforts (Ucbasaran, 2001). This is significant to the extent that higher levels of entrepreneurship cannot be explained solely by personal beliefs, but should include structural and cultural contexts as well.
- Data of some studies may have been contaminated by common method variance (i.e. data representing the dependent variable and independent variable comes from same respondent using similar methodologies (Chandler & Lyon, 2001:9).
- Methods of measure have different meanings for subjects in different cultures; this may result in artifactual differences. Assessment of personalities across cultures is difficult since there are many ways in which nonequivalence of factors may emerge (Paunonen & Ashton, 1998). It is suggested that the assessment of bias takes place by examining the pattern of interrelationships between items included in the measure. If the relationship differs per culture, then the measure is not measuring the same construct. This cultural measure restriction is elaborated upon in the next chapter.

2.10 CHAPTER SUMMARY

SCT and empirical evidence both support the notion that entrepreneurial behavior is significantly influenced by individual differences in self-efficacy. Substantial research in the fields of entrepreneurial personality and entrepreneurial cognitions indicate that self-efficacy is one of the major determinants of entrepreneurship. The dark side of entrepreneurship remains intuitively appealing, which renders in some instances entrepreneurship being more a condition rather than a profession.

Because self-efficacy beliefs are readily amenable to modification via training, this offers valuable new awareness for assisting entrepreneurs to exploit opportunities. Understanding the theoretical discourse and instruments of intentions and self-efficacy provides a solid foundation to test the hypothesized relationships.

CHAPTER 3

LITERATURE REVIEW ON CULTURAL INFLUENCES ON ENTREPRENEURSHIP

3.1 INTRODUCTION

As the preceding section demonstrated, new ventures offer the promise of empowering marginalized segments of the population. This section seeks to clarify the antecedents of venture creation and reviews important foundations for those encouraging more entrepreneurship, within a cultural context. This section does not attempt an encyclopedic review of culture, but rather identifies findings that bestow new awareness to entrepreneurship research in this regard.

A variety of studies lend support to the argument that cultural values influence entrepreneurial behavior. Much of the study of ethnic entrepreneurs is based on issues of culture, with a growing body of literature supporting the argument that national culture influences a variety of economic/ management behavior (Hofstede, 1980, 2001) and entrepreneurship (McGrath, MacMillan & Scheinberg, 1992).

Because culture is a construct used in many disciplines this section first examines different theoretical perspectives of culture and is followed by a review of cultural values with emphasis on Hofstede's seminal work. The link between culture and entrepreneurship is then identified by a series of findings that offer mixed results pertaining to this link. Lastly a measuring instrument is analyzed in terms of appropriateness to the thesis's objectives.

3.2 PERSPECTIVES ON CULTURAL THEORY

Differences in perspective regarding the theoretical discourse on culture have different implications in research and instrument design, for example:

- The most general view of culture describes culture as a set of characteristics, common to a particular group of people, and by using a multiple systems method as a way of approaching culture one can see that culture refers to both objective and subjective aspects of man-made elements (Erez & Early, 1993).
- Together with an abbreviated trend analysis of culture's association with different disciplines in order to understand a plethora of theories, Erez and Early (1993:71) offer a summary of approaches regarding the concept of culture. Based on their analysis, it becomes apparent that many of the

associated disciplines are moving away from emphasis on values as a way of describing cultures.

- Triandis (2000) in commenting on issues on cross cultural research suggests the need to stop doing research that simply mentions a country, and begin using explicit measured specific aspects of culture, such as Individualism-Collectivism (I-C) or tightness –looseness.
- Based on the cultural psychology perspective persons and cultures 'interpenetrate' each other's identity and cannot be analyzed into independent and dependant variables (Church, 2000:664). Valsiner (2001:13) distinguishes between three discursive fields in the meaning of culture, based on the 'there exists a person within a context,' assumption. This is similar to the discussion labeled independent vs. interdependent views of self, which is discussed in this chapter.
- Cooper and Denner (1998) review seven theories on the relationship between culture and psychology: I-C, ecological systems, cultural – ecological, social identity, ecocultural and sociocultural, structure- agency, and multiple worlds. By viewing theories as distinct yet complementary, interdisciplinary collaboration is recommended.
- When deciding whether to use imported (etic) or indigenous (emic) instruments, Church (2001:983) and Van de Vijver & Leung (2001:1014) propose finding convergence between these perspectives allowing one to compare personalities across cultures (etic dimensions) and also describe personalities with culturally sensitive elements (emic dimensions), i.e. look for universal generalizations, while at the same time admitting emic information (Triandis & Su, 2002). The contrast between the etic and emic approaches is often a false dichotomy and these concepts are no more separable than nature and nurture. Church (2000) utilized this convergent viewpoint to discuss how personality traits exist in all cultures, but account for behavior less in collectivist than in individualist cultures. Situational determinants of behavior are important universally, but seem to be more so in collectivist cultures.

Equally important, certain qualifications concerning cultural attributes (Triandis, 1994) are:

- Cultures and societies are enormously heterogeneous. Within each culture there are large variations in personality requiring that we qualify every statement. Multiculturalism is meant to create a sociopolitical context within which individuals can develop healthy identities and attitudes (Berry et al, 1992:297).
- Any description of a culture focuses on the prototypic individuals in that culture.
- 'Culture' is a label that gets mixed up with language, geography, history, religion, race, social class and many other categories.
- Culture is a construct, it is an auxiliary concept that should be used as long as proves useful but bypassed where we can predict behaviors without it.

3.3 CULTURAL VALUES

Culture presupposes a collectivity. Obviously values vary within a nation and there is considerable overlap between nations (Hofstede, 1998).

Values are attributes of individuals as well as cultures and to a certain extent individual values do appear to be culturally derived. However individual values are not altogether determined by culture or directly equivalent to attitudes.

Hofstede (1980:15) treats values as part of culture.

Values are learned responses and are non-rational. In fact values determine our subjective definition of rationality. Nearly all other mental programs (such as attitudes and beliefs) carry a value component. Moreover values tap what is important, belief what is true. Scales measuring cultural constructs sometimes mix values and beliefs together (Bond & Smith, 1996).

A finding by Davidsson and Wiklund (1997:183), that values are more important than beliefs is somewhat surprising, since it is generally concluded in psychological research that more proximal variables e.g., domain –specific beliefs, should have higher explanatory power with regard to specific behaviors than have distal variables such as values. Correspondingly others have proposed that cultural differences may be analyzed using a framework that takes into account the extent to which dimensions are core or periphery, visible or invisible (Rijamampianina & Maxwell, 2002).

So many value instruments exist, that a complete review is beyond the aims of this paper. Some widely quoted authors on this matter are; Rokeach (1973) and Schwartz (1992), however most of these value models have not been linked to business outcomes.

Rokeach (1973) proposed that values determined by the hierarchies of that person's terminal and instrumental values, are small in number, and are to be found universally, but in different degrees. Rokeach also noted that values change slowly, with the rank order of some values remaining very consistent.

The Rokeach Value Survey has been applied to urban South Africans, with the finding that urban South Africans place similar relative importance on personal values (Corder, 2001), which reinforces the proposition that little difference exists in entrepreneurial activity between race groups in urban areas; this may limit the variation in entrepreneurial intentions based on this study's sampling.

Schwartz's (1992) work parallels that of Hofstede in attempting to develop an exhaustive set of cultural dimensions. Schwartz generated ten motivationally distinct categories of individual values, which can be subsumed into two dimensions: openness to change vs. conservatism and self-transcendence vs. self-enhancement.

In interpreting people's statements about their values, i.e. broad tendencies to prefer certain states of affairs over others, it is important distinguish between the desirable and desired; how people think the world ought to be versus what people want for themselves. Furthermore what distinguishes the desirable from the desired is the nature of norms involved. In the case of the desirable the norm is absolute pertaining to what is right, in the case of the desired the norm is statistical, it indicates the choices actually made by the majority. The desirable relates more to ideology, the desired to practical matters (Hofstede, 2001).

Psychologists have focused on values which persons develop as they get experience in the world work. Schein (1992) presents eight career anchors a person may develop early in their careers. These anchors are described as areas of the self-concept and consist of abilities, motives, needs and values, reflecting deep and far-reaching aspects of the person. At least two of these anchors: creativity and entrepreneurship, and autonomy and independence may be directly linked to new business formation.

Equally relevant, cultural values affect the perception of an individual through cognitive schema, interpretation, and sense making; therefore dimensions of culture play an important role in shaping an individual schema and sense making which subsequently act as powerful filters that shape interpretation and perception which in turn leads to differences in behaviors and outcomes (Chrisman, Chua, Steier, 2002:114).

Hofstede in discussing culture declares it is always a collective phenomenon because it is at least partly shared with people who live within the same social environment, which usually is where it was learned, 'hence it is the collective programming of the mind that distinguishes the members of one group or category of people from another' (2001:9). He asserts that culture is learned not inherited; it derives from one's social environment not from one's genes. Culture should be distinguished from human nature on one side and from individual

personality on another; although he admits that exactly where the borders lie between human nature and culture, and culture and personality is another matter.

3.4 NATIONAL CULTURE

Hofstede's statistical handling of IBM data at country level produced four empirical dimensions of national culture; these were interpreted as four independent basic dilemmas common to 40 societies. The four are labeled as power distance*, uncertainty avoidance*, individualism/collectivism*, masculinity/femininity* and a fifth dimension, using a Chinese Value Survey, is long term/short-term orientation* in work ethic (Hofstede & Bond, 1988). The four dimensions of Hofstede's correspond closely to the four standard analytical issues predicted by Inkeles and LeVinson as far back as 1954.

Hofstede's (1980; 2001) dimensions are widely used for the following reasons: the measures are based on data from 53 developed and developing countries and subsequent studies indicate significant correlations with these dimensions when replicated (Hoppe, 1990 & Sondergaard, 1994), furthermore country scores are validated when compared with data from other surveys and indexes measured at country level (e.g. GNP).

More recent analyses of cultural dimensions have been conducted by Trompenaar (1993) who in discussing different manifestations of culture notes that national culture occupies the highest level, he identified the following dimensions; achievement vs. ascription, universalism vs. particularism, individualism vs. collectivism, neutral vs. affective, and specific vs. diffuse.

An additional development is the further analysis of Trompenaar's database, where two separate dimensions, i.e. conservatism- egalitarian commitment, and loyal involvement – utilitarian involvement was identified.

Other highly salient, yet under- researched dimensions are: paternalism and fatalism. Both of which have significant implications for managerial assumptions and human resource management practices (Aycan et al, 2000.)

*Power distance, which is related to the different solutions to the basic problem of human inequality. *Uncertainty avoidance, which is related to the level of stress in a society in the face of an unknown future. *Individualism vs. collectivism, which is related to the integration of individuals into primary groups. *Masculinity vs. femininity, which is related to the division of emotional roles between men and women. *Long term vs. short-term orientation, which is related to the choice of focus for people's efforts: the future or the present (Hofstede, 2001:29).

Hofstede (1991; 2001) reports that sources of data on national culture should discriminate i.e. it should indicate those characteristics, which apply to this population and not for others, and it should apply if not to all members of the population at least to statistical majority, otherwise it remains a false generalization. Statements about culture are not statements about individuals. Hofstede cautions that we do not compare individuals but compare central tendencies in the answers from that country. The culture of a country is not a combination of properties of the average citizens or a "modal personality" (Hofstede, 1991:112).

An error, which psychologists sometimes make when looking at culture, is to treat it as a kind of common personality; this however overlooks the fact that cultures are formed by the interaction of different personalities both conflicting and complementary, forming a whole, which is more than the some of its parts.

Hofstede warns that the logic of societies however is not the same as the logic of individuals looking at them. The grouping of the different aspects of a dimension is always based on statistical relationships i.e. on trends for the phenomena to occur in combination. Therefore dimensions can only be detected on the basis of information about a certain number of countries, at least ten.

Another contention in the literature is that nations cannot be equated with societies. In nations that have existed for some time there are strong forces toward further integration, e.g. one dominant national language, a common mass media, a national education system; on the other hand there remains a tendency for ethnic, linguistic, and religious groups to fight for recognition of the own identity. Hofstede warns that using nationality, as the criterion is often a matter of expediency, but where it is possible to separate results by regional, ethnic, or linguistic groups - this should be done. Countries and ethnic groups are integrated in social systems for which the four dimensions are applicable. That the cultural level indicators of social cultural dimensions better predict tendency toward entrepreneurship than that individual level indicators is confirmed by researches e.g. Begley and Tan (2001).

Hofstede's work has been subject of considerable debate, with researchers adopting a more emic perspective arguing that culture in all its complexity cannot be captured quantitatively and reduced to four/five variables. Others point that culture is changeable, and in some countries too heterogeneous to lend value to understanding. Here Sivakumar and Nakata (2001) argue that despite this heterogeneity within any nation state there is a set of modal values. Hofstede proposes a decision framework to strengthen the application of Hofstede's work in cross cultural business studies, by developing sets of algorithms that calculate indexes reflecting the power of different samples.

Similar research on national culture supports the existence of cultural specific dimensions. One study, which examines all five of Hofstede's cultural dimensions

using data from 18 countries, finds support for its hypothesis that performance is better when management practices are congruent with national culture (Newman & Nollan, 1996).

3.5 CULTURAL INFLUENCES ON ENTREPRENEURIAL ACTIVITY

It has been reported that the formation of entrepreneurial start up ventures is the most effective way to relocate labor and capital in a transitional economy (Luthans et al, 2000). Recent research among European countries in transition underlines the point that entrepreneurship exists in every country. This spirit can be fostered with an appropriate framework. If entrepreneurship is not valued in the culture of a particular country, then not only will it be associated with criminality and corruption but also other forms of economic encouragement will prove ineffective.

The experiences of the former Soviet countries demonstrate that during the initial stages of transition to a market economy, entrepreneurship as a source of economic growth is not only unsupported but it is largely neglected and even suppressed. Luthans et al highlight the 'criminalisation' of the economy, in that small business in Russia must depend on private – and often informal or criminal – sources of credit. Here clear parallels to S.A. with the proliferation of micro lenders in recent years are conspicuous.

As Baumol (1990) has indicated entrepreneurship may in some instances inhibit rather than enhance economic progress, e.g. illegal enterprising and rent seeking activities.

The aggregate level of entrepreneurial activity is uncertain and heavily influenced by cultural traits i.e. there is a significant difference among entrepreneurial rates of different groups, which may occur in spite of relatively modest differences among their economic and institutional characteristics. Some individuals with different cultural roots tend to be more prolific in initiating ventures e.g. statistics

show rate of business ownership for Asians is more than quadruple the rate for United States blacks – 54.8 versus 12.5 per 1000 (Boyd, 1990).

Investigating entrepreneurship in the United States over time, Gartner and Shane (1995) suggest entrepreneurship is significantly higher per capita than any other time in the last hundred years; and that indeed US may be undergoing some fundamental changes in how the economy is organized. It seems the individual is getting in and out of business in greater frequencies as a normal part of their work histories.

In discussing institutional obstacles to South African entrepreneurship, Ahwireng-Obeng and Piaray (1999), reason that S.A. is currently drawn in a tide of schizophrenic development (i.e. dual economic system), but that at the level of institutional efficiency it is just another failing developing country. The political transition has generated policy risks and controversial labor, patent, and competitive legislation together with new taxes and levies have been passed; the evidence indicates that it is the convergence of institutional risks from crime and security, corruption, and dysfunctional government that poses challenges to entrepreneurs.

Others, such as Yu (2000), see Third World countries as having failed to promote adaptive entrepreneurship. Instead, Yu argues, these states engage largely in rent seeking activities and exhibit the characteristics of 'vampire states', such as Kenya in the late 1980's whose rulers were described as predatory i.e. their efforts to maximise the resource flow under their control erodes the ability of the resource base to deliver future flows.

Yu presents an entrepreneurial model (see figure 1) of Hong Kong's economic growth to represent an entrepreneurial society.

Hong Kong's unique environments:

Political, economic & cultural

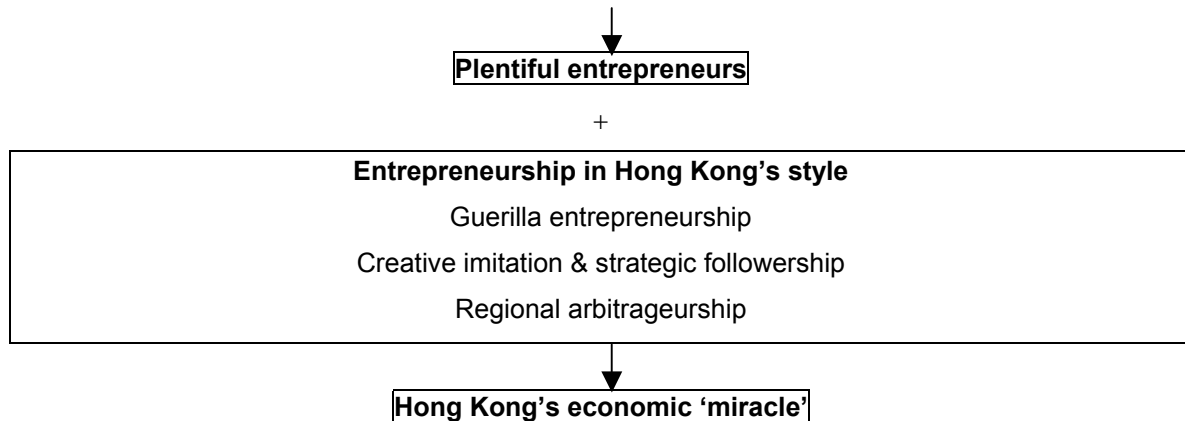


Figure 1. Entrepreneurial model of Hong Kong's economic growth. Yu (2000:189).

Growth intentions of entrepreneurs in the Peoples Republic Of China was tested via a cognitions model, that found not only entrepreneurial commitment, need for achievement, and social environment are important, but that a cognitive understanding of the environment also has a direct impact on growth intentions (Lau & Busenitz, 2001).

In discussing the relationship between culture and new firm formation, Davidsson and Wiklund (1997:182), offer two views; first the supportive environment perspective or societal legitimization perspective, i.e. prevailing values and beliefs among others may make a person more or less inclined towards new venture formation. Secondly, a relationship may occur because some regions have a larger pool of potential entrepreneurs (this view is in accordance with McClelland's [1961]; Bygrave & Minniti's [2000] and Thornton's [1999] work, which focuses on the embeddeness of entrepreneurship in social and structural relationships).

As a matter of fact it has been suggested that entrepreneurship is a self-reinforcing process (Bygrave & Minniti, 2000). Entrepreneurship leads to more entrepreneurship and the degree of entrepreneurial activities is outcome of a

dynamic process in which social habits (entrepreneurial memory) are as important as legal and economic factors. Thus entrepreneurs act as catalysts of economic activity, and the entrepreneurial history of a community is important.

This is relevant since the human capacity to learn by observation (Bandura, 1997) enables entrepreneurs to learn from other model entrepreneurs without having to acquire model behaviors by risky trial and error.

Bygrave & Minniti propose, agent's choice is influenced by "others" chosen paths, and claim that entrepreneurship is hence an interdependent act. Together with threshold models of collective behavior, indications are that an individual's decision does not depend on his preferences alone but is influenced by what others choose.

Such views resonate with Cooper's and Denner's (1998: 574) perspectives i.e. culture as capital; a theory of social capital, which refers to the relationships and networks from which individuals are able to derive institutional support. Social capital is cumulative, leads to benefits in the social world, and can be converted into other forms of capital.

Lee and Peterson (2000) propose entrepreneurial orientation (EO), as operationalized by Lumpkin and Dess (1996), serves as a mediator in the relationship between culture and entrepreneurship; they subsequently present a cultural model of entrepreneurship. It is suggested that entrepreneurship is more compatible with certain cultures, and a strong EO will ultimately lead to increased entrepreneurship. In an effort to understand the role of an EO and start up culture to enhance economic development in S.A., Pretorius and Van Vuuren (2002) conclude that culture in S.A. is not supportive to the development of an EO. Although empirical evidence is required to substantiate this generalization, their categorization of African culture, based on the main cultural dimensions, coincides with other African evaluations, e.g., Kinunda- Rutashobya (1999), and

Themba et al (1999), who further proposes possible intervention strategies to cultivate a culture conducive to entrepreneurship in developing countries.

The debates in this section clearly indicate that in addition to individual and cultural differences, forces operating within other larger contexts also determine entrepreneurial activity.

Simultaneously it can be argued that greater attention is needed to document the impact of entrepreneurial processes on the development of human and intellectual capital, since it is apparent that it is not a coincidence that countries that promote entrepreneurial activities are also the most proactive in developing and nurturing their human capital.

3.6 CULTURAL DIMENSIONS LINKED TO ENTREPRENEURSHIP

Although research such as Thornton (1999) has boosted the demand side perspective of entrepreneurship by focusing on the influences exerted by firms and markets, over the last thirty years Weber's (1948) theory of the origin of entrepreneurship as a cultural consequence of individualism has been the metatheory underlying the dominant supply side perspective in entrepreneurship research.

On the topic of entrepreneurship as a cultural consequence, studies have tested Weber's (1948) thesis relating a protestant work ethic (PWE) to economic success. Paradoxically, individuals in developing countries (mostly non-protestant) tend to average higher on PWE measures than individuals in developed countries. Similarly other studies have found many behavioral models include assumptions about capitalism and protestant work ethic that are not

applicable in many countries (Jaeger & Kanungo, 1990). The uncritical adoption of western concepts is often not helpful in a culturally different context.

Developmental strategies that utilize sociocultural features of indigenous society may be more desirable. Furthermore characteristics of developing countries represent overall trends and may not hold for every country on every dimension. Searches for culture- fit models provide understanding of how the cultural variable explains the effect of different practices in different cultures (Aycaan et al, 2000).

Hofstede (1980, 2001) did not specify the relationship between entrepreneurship and culture; however his dimensions are useful in identifying criteria of culture related to entrepreneurship. Hofstede did demonstrate linkages between cultural dimensions and national wealth, and economic growth of certain cultures. Of Hofstede's four cultural dimensions, uncertainty avoidance and masculinity appear to be relevant to economic freedom.

The findings of Johnson and Lenartowicz's (1998) study support a positive relationship between economic freedom and economic growth, with a strong relationship between uncertainty avoidance and economic freedom. However alternative perspectives exist which maintains that economic freedom is a result, not a cause of economic growth. The mere presence of cultural values is insufficient to explain economic growth; a nation's economic progress also depends on economic freedom, which seems to be the missing link between culture and economic growth.

Conversely economic freedom may also have a negative effect on a countries level of economic development by increasing income inequality between rich and poor and widening the gap between quality of life in urban and rural areas: both of which seem to have transpired in contemporary S.A.

In discussing western minds and eastern minds, it was determined that by

economic criteria alone the success of the Asians Tigers could not be accounted for, and that it took an East Asian instrument, the Chinese Value Survey (CVS), to find a true proof of the role of culture as an explanation of the economic success (On the contrary the collapse of several East Asian economies in late 1997 has somewhat undermined the presumption that national culture has a direct influence on economic growth).

As noted, although Hofstede did demonstrate the link between I-C dimensions and national wealth of a country, the reverse causality- national wealth causing individualism is more plausible and is statistically supported in the IBM case. That is when a country's wealth increases its citizens tend to have access to resources, which allows them to do their own thing. However the negative relationship between individualism and economic growth for the very wealthy countries suggests that this development leads to its own undoing, where wealth has progressed to a level at which most citizens can afford to do their own thing, which leads to friction losses and the national economy grows less.

Summing up, wealth provides individualist choices. Secondly, at the country level too much individualism or collectivism tends to slow economic growth; this notion is reinforced when findings relating entrepreneurship to individualism and collectivism (I-C) are highlighted in the next section.

3.7 PERSONALITY CONCEPTIONS IN CULTURES

A broad overview of the different assumptions underling personality in cultures as characterized by independent versus interdependent views of self, is now delineated

- The independent view of personality, prevalent in western countries identifies person as an autonomous entity, and the subsequent study of personality leads to understanding of how to predict and control behavior.

- The interdependent view of personality, prevalent in Asia, Africa and Latin America identifies a person as part of an encompassing social relationship, with study of personality leading to understanding of the relational and interpersonal nature of behavior (Markus & Kitayama, 1998).

This suggests:

- Introspecting and reporting on one's characteristics is a much more natural task in individualistic cultures.
- People in collectivist cultures will exhibit less temporal and cross-situational consistency in their behavior than people in individualistic cultures.
- Behavior of collectivists will be less predictable from assessments of traits and attitudes and more predictable from social roles and norms.
- Trait self-assessments in individualistic cultures will be more distorted by self-enhancement tendencies as opposed to more self-effacing tendencies of collectivists. However there is no consistent trend in this regard with some presumably collectivist respondents (black South Africans) having responded in a more socially desirable manner than respondents in individualistic cultures have (Mwamwenda, 1993).

Attempts to characterize cultures or individuals in such broad cultural dichotomies may be overly simplistic. Indeed many researchers have begun to view the self as incorporating both independent and interdependent self-construal in varying degrees, with different selves being accessible under different contexts (Markus & Kitayama, 1998).

Theories of entrepreneurship that have focused on one sided determinism, where either environmental or personality variables have been specified as unique predictors of entrepreneurship, have failed to capture the complexity of

human action that encompasses the interaction of environmental, cognitive, and behavioral variables (Bandura, 1986,1997). It is further postulated that if we cannot measure cultural factors affecting entrepreneurial intentions and subtle changes in response to these, how can we aspire to understand the reciprocal relationships the between them?

Based on these theoretical underpinnings, entrepreneurial motivation is likely to be a function of not only culture and personality but also the interaction between personality and the cultural values. This relationship is expressed as follows to extend the model as proposed by Van Vuuren and Nieman (1999):

$$E/P = a + bM(C \times P) [(cE/S \times dB/S)]$$

Where culture (C) x personality (P) are both treated as essential elements of entrepreneurial motivation (M). (Conveniently if entrepreneurship were nothing else but algebra it would be expedient to register all variations of influences on these phenomena.)

Certain universal principles of motivation seen to cut across cultural borders, the content domain of human needs and motives are universal. Need for enhancement, efficacy, and consistency are universal human characteristics yet the salience of the various needs and well as the means for satisfying them, vary across cultures. Cultural values direct individuals' selective attention to stimuli in the work environment and they serve as criteria for evaluating and interpreting motivational tendencies.

In some cultures people are highly motivated to be unique, whereas in others people prefer to be like everyone else. For instance motivation in individualist cultures increases following success, whereas in collectivist cultures it increases following failure since the individual focuses on how to change the self and improve fit between self – environment (Triandis & Su, 2002).

The cultural self-representation model (see figure 2) developed by Erez and

Early (1993), posits that culture manifests itself in an individual's self-identity through basic motives for action. This model proposes that the self in terms of their contribution to self-enhancement, efficacy perceptions, and self-consistency evaluates the potential effectiveness of various management techniques. Cultural norms and standards determine the criteria for evaluation.

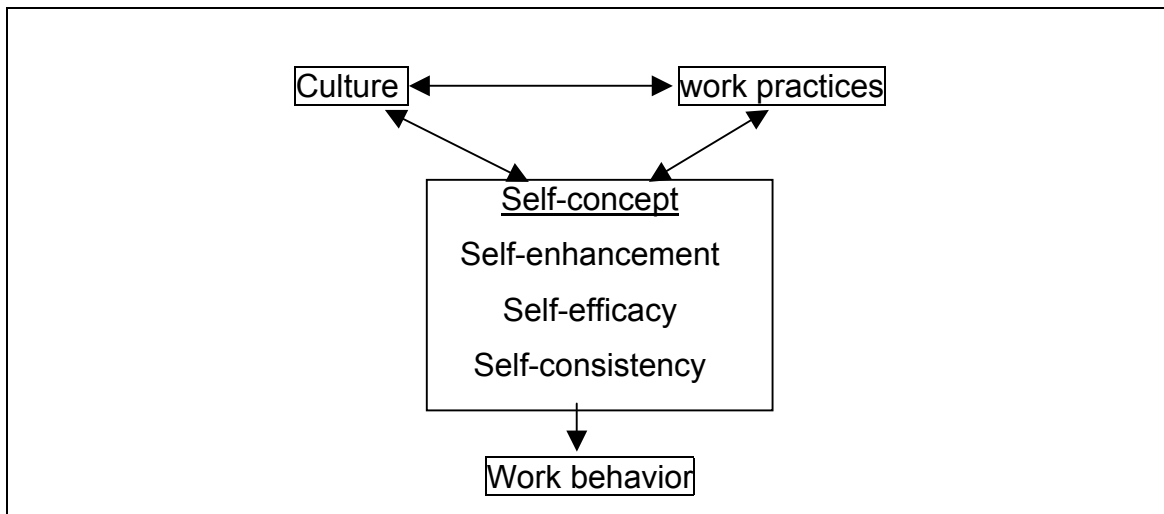


Figure 2: The cultural self-representation model: Erez and Early (1993:22).

3.7.1 INDIVIDUALISM AND COLLECTIVISM (I-C)

In recent years there have been almost 100 studies published annually examining some phenomena from the point of view of individualism and collectivism (Triandis & Su, 2002). Impressive summaries of I-C exist (Earley & Gibson, 1998, Triandis, 1995) and no attempt is made to surpass these excellent consolidations.

Even though I-C is a broader term than the interdependence – independence construal, the conceptualizations of I-C share a number of similar dimensions.

Erez and Early (1993:92) use a categorisation scheme based on six criteria to explain these similarities; breadth of construct, time frame, level of analysis underlying motives or interests, affective and loyalty aspects, and specification of

collective or in-group. For example I-C is often depicted as a dichotomy between self-interest vs. group interest. Perhaps it is more reasonable to say that all individuals have self and group interests. Culture influences which of these interests will manifest themselves in a particular setting.

Furthermore it is not agreed that all cultures have varying amounts of the I-C tendencies, since the temporal component of individualism and collectivism is not uniformly applicable to both ends of the continuum. For example an individualist may be just as committed to group goal as a collectivist during the time which goal is relevant for the in-group and satisfies self-interest. If we ignore temporal dimensions underlying the I-C orientation one may erroneously conclude that individuals are incapable of committing themselves to the goals of in-group.

Erez and Early (1993), using two dimensions identify antecedents and consequences of I-C: proximity to the individual and time perspective. There are a number of antecedents of I-C, ranging from economic development, child-rearing patterns, to social movements. At a general level I-C is related to the wealth and economic development of societies, and still further to the agriculture/hunter origins of society. With the argument that agriculture/farming societies are likely to be collectives, whereas the hunters/gathers have need to wander making a collective setting dysfunctional (Triandis, 1995).

Individualism – collectivism are used at the cultural level whereas at the individual level of analysis, i.e. within – culture analysis, the corresponding terms are idiocentrism and allocentrism. Allocentrics tend to define themselves with reference to social entities, have internalized the norms of their in groups and are generally more ethnocentric than idiocentrics (Church, 2001:914). In all cultures there are both idiocentrics and allocentrics, albeit in different proportions; generally in collectivist cultures it is reported there are approximately 60% allocentrics, and in individualist cultures about 60% idiocentrics. For instance achievement motivation is socially orientated among allocentrics and individually

oriented among idiocentrics. Additionally there appears to be some support for the culture fit hypothesis, which states that allocentrics are better adjusted in a collectivist culture and idiocentrics in an individualist culture.

It has been proposed that the I-C contrast corresponds to the deep structure of cultural differences (Triandis & Su, 2002). A lack of awareness of contextual effects has led to the use of meta analytic techniques that enable researchers to test for validity generalization across situations while ignoring situational effects.

Other studies that link the conceptualization of self-concept and cultural dimensions of I-C are Parkes et al (1999), in their study the contextual scores were not related to I-C independent of the social self-concept. These results suggest that I-C influence the self in context only inasmuch as the context is social. In addition Early (1994) provides insight into the impact of I-C on socio-cognitive aspects of teams such as group efficacy. The exploratory power of group efficacy differs for I-C teams.

In a paper investigating the cross-border transfer of organizational knowledge it was noted that there are strong interactions between cultural patterns and cognitive styles. In addition some cultural contexts might foster some cognitive styles that are responsible for the evolution and practice of certain types of organizational knowledge (Bhagat et al, 2002). Individualists believe it is possible to articulate, organize, and create knowledge primarily from theoretical analysis; they are able to process complex information that is linear, complex, and explicit - such as scientific frameworks. Individualist cultures are more abstract, with cause and effect relationships being important, whereas in collective societies the salience of context in addition to analysis is emphasized, the strength of collectivist culture lies in the propensity to absorb and transmit tacit information with associative modes of thinking.

In two studies with Jackson's Personality Research Form (JPRF), one in Philippines and other in Zimbabwe it was noted that ratings on associated trait descriptions correlated substantially less with JPRF scores than they typically do with North American data (Church, 2000:658). The possible reasons for this being that respondents in collectivist cultures may find it odd to rate people on global traits without a specification of situational context.

As previously declared it is important to remember that traits do not predict behavior as well in collectivist as in individualist cultures. A probabilistic conception is that people in individualist culture sample mostly internal attributes of self, whereas collectivist cultures sample mostly the collective aspects of self. Correspondingly Nsamenang (1999) has asserted- knowledge of self may not be considered apart from knowledge of others, since both develop simultaneously through interaction with the social and non-social world.

The modernity trend in Africa has been observed, which is characterized by an individualistic, rational, and secular view of life as opposed to the traditionalist, collectivist, metaphysical, and moralistic orientation. African communities are under the strain of the competition between acculturation toward urban, western vs. indigenous African value systems (Mpofu, 1994:344). Nevertheless studies of cultural minorities in an Anglophile culture milieu suggest that only visible behaviors, behavioral intentions, and role perceptions are orientated toward the behaviors of the dominant culture; the core, invisible elements of the traditional culture, such as attitudes and values, remain intact.

People exist at different levels of acculturation. Differential effects of acculturation can be expected. On visible attributes one is likely to be rewarded for merging with mainstream. But on beliefs, attitudes, and values, the rewards may be greater for affirming membership in one's ethnic group. Thus in many studies, as culture changes, they first change on superficial traits (material) and

subsequently on more basic traits such as child rearing patterns or religion (Triandis, 1994:65).

Triandis (2001:919) argues that studies are needed that will untangle the constructs from modernity, affluence, urban status, migration, and exposure to Hollywood. A global culture is emerging which is compatible with idiocentrics, thus we need to examine how acculturation results in different patterns of individualism and collectivism in each society.

In anthropological studies of African societies it has been suggested that African societies are among the most collectivist, yet there are scarcely any systematic studies of self concept that have derived relevant etic and emic values (Mpofu, 1994:343). Mpofu's findings indicate a significant proportion (51%) were individualistic rather than collectivist (28%). However at the cultural- idealistic level, the self-concept was perceived as significantly collectivist.

In exploring the effects of cultural tightness and collectivism on self concept and causal attributions, Carpenter (2000), finds that the self concept is related to both cultural tightness and collectivism, more specifically interdependent self concepts were more likely to occur in tight and collective cultures, whereas independent self concepts occurred in individualistic and loose cultures.

Moreover a variation of collectivism between genders was found in that male collectivism is derived from group affiliations and female collectivism is derived from specific relationships. In a 14-country study investigating culture by gender differences in the source and level of self-esteem, it was discovered that respondents from the collectivist countries placed greater emphasis on family values as component of their self-concept than did those from individualist countries. The expected gender differences, with females valuing 'family values' and 'social relationships' more highly, were found only for individualist countries (Watkins et al, 1998). Past research has indicated that women, older people, and

less educated people tend to be more collectivist and less individualistic (Watkins et al, 1998).

In exploring the relationship between attitudes towards growth, gender, and business size, Cliff (1998:524) found that female entrepreneurs are more likely to establish maximum business size thresholds beyond which they would prefer not to expand. For female entrepreneurs personal considerations tend to override economic considerations in business expansion decisions.

In view of these abovementioned findings there is a need for revision of the earlier view that achievement motivation is strong in individualist cultures, and that individualistic entrepreneurship is a prerequisite for economic development (McClelland, 1961). Achievement motivation, in East Asian collectivist cultures, is more socially orientated, which may also foster entrepreneurial activity. Whether achievement motivation centers upon work is dependent on the values of the culture (Bond & Smith, 1996). Further discrimination can be made between individually orientated achievement motivation and socially orientated achievement orientation (Church & Lonner, 1998).

In conclusion it seems much of the work on understanding self-concepts as they may differ across cultures makes assumptions without adequate theoretical justification. Early and Gibson (1998) suggest that it is not surprising that the two constructs (I-C and independent vs. interdependent self-construal) are found to be related. Another problem is that the individual and cultural levels of constructs are not mapped onto one another consistently suggesting 'conceptual muddiness'.

To avoid level of analysis entanglements, Oyserman et al (2002) propose an integrative model that includes distal, proximal, and situated cultural features of societies and internalised models of these features, highlighting the importance of subjective construal. Framed this way it is clear that depending on the situation both individualism and collectivism focused strategies are adaptive, thus it is likely that human mind has adapted to think both ways.

With philosophical overtures, Sarasvathy (2001:260) in discussing causation and effectuation, suggests we need to give up ideas such as successful personality and rather “need to learn to deal with a rain forest of individuals and firms and markets and societies, intermeshed and woven together and completely coherent yet vastly diverse local patterns that add up to a complex, interdependent ecology of human artifacts.”

3.8 MODERATING EFFECT OF CULTURE ON ENTREPRENEURSHIP

There are two main streams of research of the effects of I-C on entrepreneurship (Tiessen, 1997):

The micro level stream identifies those who generate variety – founders who tend to be individualistic.

The macro stream associates both I-C with national level of economic growth and innovation.

Based on the first proposition and in light of contradictory empirical evidence (i.e. the economic success of several collectivist Asian countries) Tiessen (1997) acknowledges that I-C is not negatively related: which allows one to recognize that both orientations can contribute to entrepreneurship. Research portraying average levels of these orientations can obscure the presence of both behavior types. For instance Confucian values motivate entrepreneurs in the Asian Tigers to establish and develop businesses in order to provide for their extended families. Similarly U.S. individualism does not prevent corporations from utilizing teams or from forming strategic alliances.

Even though international research conducted at the individual and firm levels lends support that entrepreneurs tend to be individualistic, studies at the national level suggest that both I-C are positively associated with entrepreneurial

outcomes. It is suggested these findings differ because micro level research focuses on variety generation (however this focus does not identify proclivities for an another entrepreneurial function - leveraging resources, which is very different from variety generation and requires creativity), while macro studies also capture the outcomes of resource leverage (Tiessen, 1997).

Similar interactions between two types of fit: individual I-C and national culture, and I-C and organizational culture, with interaction terms were identified as significant findings by Parkes et al (2001). These research findings highlight that while I-C is a salient dimension that differentiates national cultures it has not proven as an important dimension that differentiates between industries.

Equally important, Morris et al (1994) found that a balanced level of I-C led to greater entrepreneurship in their multi country sample, which included S.A. They predicted values for entrepreneurship along their plotted I-C continuum, with both the U.S. and S.A. sample-showing entrepreneurship declines the more collectivism or high levels of individualism are emphasized. Their analysis revealed that entrepreneurial activity peaks at moderate levels of individualism, with extreme individualism promoting gamesmanship, zero sum competition, and absence of team identification, all lowering levels of entrepreneurship.

Wagner (1995) presents a conceptualization together with empirical measures of I-C, separating the measure into three categories – beliefs, values, and norms. This measure of I-C captures intranational differences demonstrating the importance of separating nationality from culture. In reviewing studies that relate cultural variables to national levels of small business development, the data does not unequivocally support the U.S. image as the 'individualist home of the entrepreneur' (Tiessen, 1997:374). It is recommended that researchers move beyond ethnocentric approaches, which assume entrepreneurship is similar in different cultures, and undertake comparative studies that look for both similarities and differences.

Although Africa is largely characterized as a collectivist nation, there is school of thought that believes that capitalism was practiced in Africa long before colonization; the amount of cattle possessed was the barometer for measuring an individual's wealth. Whereas a second school of thought argues that socialism has been part of Africa because it is a collectivist society. Factors that have been identified as limiting entrepreneurial activities in sub Saharan Africa are - power distance and collectivism (Takyi – Asiedu, 1993).

A concept like Ubuntu (with an element of high community involvement) is in conflict with individualism yet differs from collectivism, where the rights of the individual are subjugated to a common good.

The African version of collective interdependence does not extend as far as the Japanese model – where the individual largely ceases to exist, instead individuality is reinforced through community (McFarlin, Coster, Mogale, 1999). Corder (2001) proposes that individualism and collectivism are poles of a continuum within which African Humanism falls.

Moreover there has been an emerging emphasis in describing I-C in terms of a specific reference group and context rather than society at large. A misconception from this is that collectivism is synonymous with communitarianism and that all collectivists are harmonious and homogeneous (Earley & Gibson, 1998).

A study that was successful in demonstrating that cognitive scripts explain a significant amount of variance in venture creation decisions (Mitchell, Smith, Seawright, & Morse, 2000:986), finds at least some cultural values being related to certain of these scripts, and in some cases, cultural values also moderating the cognition- venture creation decision relationship. Because perceptions and cognitions depend on information that is sampled from the environment and are fundamentally psychological processes, culture influenced sampled information is important as cultures develop conventions for sampling information (Triandis &

Su, 2002:136). Nonetheless in world business there is a growing tendency for tariffs, and technological advantage to wear off, which automatically shifts competition toward cultural advantages or disadvantages.

Practically such findings suggest that cross- cultural differences may not be as pronounced as previously thought and similarities across cultures may in fact be driving globalization. This line of reasoning concurs with Levitt's (1983) premise that world markets are being driven toward a 'converging commonality'.

Conversely Hofstede (2001) declares there is no evidence that the cultures of present-day generations from different countries are converging. Similarly voices in the marketing literature express doubts about this illusory worldwide convergence of consumers. This is validated by evidence in Hofstede's work, indicating no convergence of cultural values over time, except for increased individualism for countries having become richer (2001:454).

Yet it must be recognized that cultures are no longer insular. Transnational interdependencies and global economic forces are disintegrating social and cultural normative systems. In addition mass migration of people are altering cultural landscapes, this growing ethnic diversity accords functional value to bi-cultural efficacy to navigate demands of both ones ethnic subculture and that of the larger society. Issues of interest now center on how national and global forces interact to shape nature of cultural life (Bandura, 2001).

Through the development of a cognitive model, Busenitz and Lau (1996), integrate cognition with social context, cultural values, and personal variables. Their study suggests that some perceptions and beliefs among entrepreneurs transcend cultures. Similarly, Lee and Green's (1990) findings suggest cross-cultural validity of a behavioral intentions model (i.e. the Fishbein model). In their study however the founding rates also tend to differ by ethnic groups, and so it is contended that other beliefs and values may be more culture or ethnic group specific.

The effect of cultural values can also be seen in a broader sense; if a society does not provide sufficient jobs for certain ethnic groups, for example new immigrants, those ethnic groups that are higher in individualistic values will be more prone to found their own venture.

It has also been suggested that local entrepreneurs are socialized in the ways of indigenous populace and thus may display the broad based values of the society in which they live (Steensma, Marino, & Weaver, 2000). To reiterate cultural values may be a source of competitive advantage for some societies.

This line of thinking is exemplified in a recent study demonstrating the moderating effect of culture on the relationship between entrepreneurial orientation and strategic alliance portfolio extensiveness (Marino et al, 2002). Their study confirms that a firm's ability to leverage its entrepreneurial orientation by an extensive strategic alliance portfolio is discouraged by two aspects of a firm's national culture; masculinity and individualism.

A tentative conclusion from Mueller and Thomas' (2000) study, examining the relationship between Hofstede's cultural dimensions and two psychological traits (locus of control and innovativeness) associated with entrepreneurship, is that a supportive culture increases, *ceteris paribus*, the entrepreneurial potential of a country. Many factors underlying entrepreneurial behavior are common across cultures; e.g. economic incentives serve as motivators in all cultures. However because culture reinforces some personal characteristics and penalises others, we could expect some cultures to be more closely aligned with an EO than others (Mueller & Thomas, 2000: 59).

Seeking to answer the question of whether entrepreneurs are the same across cultures, i.e. "the applicability of existing entrepreneurial archetype in different cultures", Thomas and Mueller (2000) examine the relationship between culture and four personality characteristics commonly associated with entrepreneurial motivation. To determine whether the entrepreneurial traits profile is applicable to other cultures or is bounded by ethnocentric bias, they measured the degree to

which these four entrepreneurial characteristics are prevalent in other cultural settings. More specifically they examined the systematic variation in the frequency of entrepreneurial traits from the 'ideal' entrepreneurial profile, i.e. U.S. model. They found that three traits associated with entrepreneurial potential, i.e. internal locus of control, moderate risk taking propensity and high energy level decrease in frequency as cultural distance from the U.S. increases. This study reveals that people reflect dominant values of national culture, thus they might share some universal traits but others are more cultural specific.

In the case of cultural distance -- as utilized by Thomas and Mueller (2000) -- presumably measuring the extent to which different cultures are similar and different, the distance metaphor is translated into a focus on what sets cultures apart. It can be argued that with substantial distance in culture that same factor structure will occur universally, i.e. that cultural distance reflects differences in language, socioeconomic level, family structure, religion and values (Triandis, 1994).

On this topic of cultural distance, some researches argue that cultural diversity is defined by the significance of the cultural distances between existing cultures instead of the number of different cultural groups (Rijamampianina & Maxwell, 2002), i.e. significant cultural distances indicate the existence of a multicultural group.

A balanced analysis would however consider both opening and closing mechanisms i.e. what sets cultures apart and what brings cultures together. Some key mechanisms with the potential of closing cultural distance are, globalization and convergence, acculturation, and cultural attractiveness (Shenkar, 2001).

Additional research by Mc Garth and MacMillan (1992), pertaining to the dilemma whether entrepreneurs across various cultures are more similar to each other

than to counterparts in their own countries, finds entrepreneurs share a predictable set of values different from non-entrepreneurs. They stressed that outgroup beliefs and deviant behavior sometimes transcends cultures. Their data could not however test the relationship between the basic set of universal beliefs (from the perspective of entrepreneurs), to new venture creation. In a different article, same year, Mc Garth et al (1992) focus on the malleability of culture by uncovering where culture predominates and where ideology predominates. Their results indicate that along the I-C dimension, collectivist values are highly enduring. In contrast for power distance, results indicate more malleability and can shift in face of ideological pressures. Uncertainty avoidance does not appear to have moved in the direction of a western model and, 'work to live' is not easily replaced by a 'live to work' attitude. Developmental policies that assume individualistic values can be infused into a collectivist culture, could be compromised by the intractability of collectivist values as signaled by such findings (Mc Garth et al, 1992:442).

Again in a separate study Mc Garth, MacMillan, and Scheinberg (1992) found a reasonable degree of support for the idea that entrepreneurs share a predictable set of values, when compared with non-entrepreneurs. At a macro level, their study suggests that culture may have a predictable relation with proclivity to start new ventures.

Results from Thomas and Bendixen's (2000) study indicate considerable similarity in values, as measured by Hofstede's Value Survey Module (VSM94) instrument, across various ethnic groups in South Africa; they conclude that an effective management culture is independent of ethnic group. A surprising result from their study, when compared to the original Hermes studies, is the high I-C score, which contradicts many African collectivism theorists. Contradictingly Eaton and Louw (2000) in their study of cross cultural differences (South African sample) in self concepts, found that African students used higher proportion of specific and social responses when describing themselves than did English speaking students, this confirms the collectivism assumption, and in general their

research illustrates the usefulness and applicability of such theories in the African context. Nonetheless the authors did recognize that both their groups were heterogeneous in terms of ethnic, religious, and cultural heritage, and a validated measure of cultural orientation for use with many different cultures in South Africa is required.

Asking if cultural differences are overrated, Markoczy (2000) suggests that while culture might influence general values it does not pervade all aspects of individual beliefs. Shane et al (1991) demonstrates that there are no universal reasons leading to new business formation across gender and national boundaries. In their three-country survey, out of 13 factors only one – freedom to adapt ones own approach to work, can apply across countries and genders.

It has been argued that since researchers use the term's culture and nation interchangeable the majority of cross-cultural studies tend to be cross-national studies that are confounded with the influence of the national environment. Compared with the cultural effect the national effect is more influential on entrepreneur's perception of environment and strategic orientations. On the other hand despite the diversity in national context; mainland Chinese entrepreneurs share certain similarities with entrepreneurs elsewhere, thus supporting the notion of the universal entrepreneur (Tan, 2002).

The lack of attention for within – culture individual differences remains. With research focused on country level psychological characteristics failing to scrutinize the link between individual and country characteristics, as well as in addressing questions as to the identity of characteristics at individual and country level (e.g. is UAI the same at both levels?) and their interactions (e.g. what is the difference between being an collectivist in an individualist and a collectivist country?) (Van de Vijver & Leung, 2001:1023). Such findings suggest it is necessary to distinguish between related value and belief dimensions at both cultural and individual levels (Church & Lonner, 1998).

Most studies reviewed under this section used national affiliation, but the existing and increasing cultural diversity of many nations make this strategy unsatisfactory. However if researchers include measures of the salient values and ethnic identities of the samples they study, comparisons with other studies that have more established theoretical roots might be made (Bond & Smith, 1996).

As previously mentioned Hofstede's indices are based on country level, not individual level intercorrelations, nevertheless they yield statistically significant differences when males vs. females are contrasted or when entrepreneurs vs. non-entrepreneurs are compared. An analysis on the individual level also reveals a reasonably strong relationship between values and beliefs on the one hand, and entrepreneurial intentions on the other (Davidsson & Wiklund, 1997).

On the whole the diverse findings as presented in this chapter, regarding the effects of culture, at different levels, on entrepreneurship is perhaps best encompassed through the synthesis of 21 empirical studies that examine the association between national culture and entrepreneurship; at aggregate country level, individual characteristics level, and corporate entrepreneurship level. Hayton et al (2002:46) offers a model of culture and entrepreneurship that indicates potential patterns of relationships between national cultures, contextual factors, and entrepreneurial outcomes. Culture is depicted as a moderator of the relationship between contextual factors (institutional and economic) and entrepreneurial outcomes. This suggests that culture act as a catalyst rather than a causal agent of entrepreneurial outcomes.

3.9 PROPOSED CULTURAL MEASURE

Since thesis relies on well-formulated constructs, then “we need both good measurements and good theory” (Hofstede, 2001:4).

3.9.1 UNIT OF ANALYSIS

The assessment or identification of a proper cultural unit is a critical issue because valid cultural groups are the unit of analysis for all cross-cultural studies (Lenartowicz & Roth, 1999). Based on Adler and Bartholomew's (1992) classification this study, on a general level, is unicultural / intracultural i.e. effect of cultural-self- efficacy relationship on entrepreneurial intentions in S.A., with the data source being individuals. With regards to the quantity of cultures, this could be considered a study of more than only South African culture but rather different sub cultures (ethnic groups) within S.A. Therefore the study, on a more specific level, may be considered pancultural/comparative i.e. across more than one culture (ethnic group).

When using national culture as a unit of analysis Hofstede acknowledges subcultures based on region, social class, occupation, religion, age, gender, and observes that statistics about national culture smell of superficiality and false generalizations (Hofstede, 1993). However, confusing national culture with other levels of culture is a pitfall. The cultural dimensions discriminate among nations/regions/ethnic culture but do not discriminate according to other subcultures such as gender, generation or social class (Hofstede, 2001:464). Hence gender, generation, and class culture should be described in their terms.

Highly relevant to this paper is that sub- cultures may form within a societal group, based on a distinct history or geographically based experiences that have influenced the values of the group.

Lenartowicz and Roth (2001) define sub- culture as a secondary group within society that exhibits a shared pattern in the relative importance placed on motivational domains. They demonstrate that cultural variation exists at a sub-cultural level such that different sub- cultures place different importance on particular motivational domains.

The justification for using ethnic groups, as a unit of analysis, is based on Hofstede's exhortations, as well as on the precedent set by the GEM (2001; 2002) studies which sampled subjects according to the five major languages spoken in S.A., and also described entrepreneurial activity according to race classifications (Foxcroft et al, 2002). The benefit of the longitudinal nature of the GEM study is evident in that it makes it possible to monitor the changing trends of racial bias over time.

Because of South Africa's colonial and apartheid history there is a high degree of correlation between race, location, education, self-awareness, and gender elements of disadvantage. Earnings regression show, even after controlling for education, age, and location, race was by far the most important predictor of earnings, which is related in part to differences in the quality of education and the legacy of discriminatory access to jobs in past. This set of related and mutually reinforcing indicators is important and therefore accounted for in this study.

The basic assertion is that different 'cultural groups' exist in South Africa. For the purposes of this study, the assumption of cultural grouping is taken as a given and it is supported by the literature review section, but is not verified as such.

Although the author is aware that ethnic / racial categorizations, as a primary definition of groups of people implies dogmatism, this is not intended as such, but is used strictly as a methodological convenience for purposes of this study (using political correct or evasive euphemisms such as 'Zulu speaker' is also avoided).

An attempt was made to capture as many ethnic groups as possible (even though S.A. represents a complex multicultural society), but a cruder version of Asian, Black, and White, groupings was used due to practicalities of sampling.

3.9.2 VALUE SURVEY MODULE (VSM94)

Hofstede's (1980; 2001) dimensions are used for the following reasons: the measures are based on data from 53 developed and developing countries; the measures were derived using factor analysis and represent discernible constructs; replications have supported the validity of these measures through correlations with other indices and other criteria e.g. GNP.

More specifically the latest Value Survey Module (VSM94) instrument is used to assess culture. This instrument is considered the best-validated and most efficient instrument for arriving at an empirical replication of the five dimensions of culture.

Hofstede's VSM94 instrument was designed for comparing mean scores of two or more countries / regions / ethnic groups. It is not a personality test for comparing individuals within countries. It is with this in mind that different ethnic groups are compared in this study. Hofstede is adamant – what can be measured are only differences in the statistical distributions of scores for groups-sufficiently large (20-50 per group), and sufficiently matched, i.e. similar in all respects except nationality. Absolute scores are meaningless (Hofstede, 2001:66).

Although they do exist, attempts to develop individual level measures of cultural level constructs are a new occurrence and have to contend with construct validity and reliability issues (Su-Chan & Ong, 2002).

As previously suggested in the literature review, many researchers theorize at multiple levels of analysis but use data at only one level, or use data at multiple levels but theorise at one level, both of which can raise issues of ecological fallacy (Thornton, 1999:36).

The design to assess culture for thesis attempts to incorporate multiple approaches for cultural assessment based on Hofstede's admonitions and on Lenartowicz and Roth's (1999) suggestions. These include:

- Ethnological description of S.A. ethnic groups chosen to represent study; this is based on the extensive literature review of culture as reflected in this chapter (although this is not systematically appraised as very few empirical studies examine cultural values based on Hofstede's dimensions under current S.A. sociocultural conditions).
- Regional affiliation (RA); partly included in the VSM 94 questionnaire - asking subjects where they were born and spent their childhood. These proxies have following theoretical foundations: the premise that core values are learned during childhood, and the notion that regions and cultures are intertwined (Hofstede, 1980).
- Direct values inference (DVI); questions to subjects using the VSM 94. This is based on primary data and provides interval measures; it also provides data for the analysis of homogeneity within groups. To use this measure it is necessary to control for socio demographic variables (as values generally differ between groups); it also requires subjects with the ability to understand the meaning of all the values being surveyed. VSM 94 consists of 20 content questions and 6 socio-demographic questions. Only 8 of the original 13 from which IBM scores were based remain. The additional long term vs. short-term orientation dimension is included for the first time in the VSM 94. Computational formulas are available that allow comparisons of culturally determined value dimensions between people from two or more countries / regions/ethnic groups.

In VSM 94 all 20 content questions have a 5 point structure, e.g. range from 1 = "of the utmost importance" to "of very little to no importance" = 5. Hofstede (2001:50) remarks that these types of scales are quasi interval scales. The six socio- demographic questions are; sex, age group, years of education, job level (7 point- depending on level of skill), nationality (open-ended), and nationality at birth. The system of cultural values supplied by DVI can confirm the accuracy of the RA screening process, thereby addressing both criterion related validity and convergent validity (Lenartowicz & Roth, 1999:881). In addition for convergent

validity, the obtained system of values for each unit of analysis can be compared with the ethnological description, when this is confirmed the external validity of the study is supported.

Using VSM 94 the potential measurement error from the extrapolation of cultural values from the group assessed by the benchmark (Hofstede 1980) study to the sample being surveyed now is reduced. The benchmark by Hofstede also complicates measures in that they are dominantly work values and not belief systems guiding human action extending beyond the workplace, such as entrepreneurship, for which the VSM 94 has applicability. According to Hofstede (2001:494) the VSM 94 is relevant to respondents without employers, such as entrepreneurs, students, and housewives.

Furthermore using VSM 94 will overcome assumptions that the sample of subjects studied corresponds directly to the sample from which Hofstede's cultural dimensions scores were derived from. Hofstede's (1980) original Hermes (pseudonym for corporation after Greek god of commerce; Mc Clelland [1961] saw in Hermes the personification of achievement motivation) studies included South Africa, but were sampled on predominantly white English speaking males, approximately 30 years ago. For instance on Hofstede's index - 100-point scale, with a higher score representing individualistic culture, Hofstede reported a score of 65 for South Africa. This is in contrast with the collectivist culture that others have attributed to African cultures (Takyi-Asiedu, 1993; McFarlin et al, 1999). More aptly East and West Africa scored 27 and 20 respectively on IDV. In exploring the relationship between I-C with economic wealth, Hofstede (2001:252) does explain this deviant score for S.A. in that the I-C score was based on white respondents only, whereas the GNP/ capita referred to the total population, in majority black.

Notwithstanding these limitations of using the 1980-benchmark indexes, South Africa has experienced tremendous turbulence since this period of measurement.

Based on this information and the fact that Hofstede's' index describes only differences between countries (the index scores as an absolute value are meaningless) the cultural dimension index scores, as potential explanatory variables are not used for this thesis.

In summary for an establishment of a cultural measures it is asserted that culture cannot simply be equated with national borders, or simply rely on Hofstede's index data. The proposed framework will establish the units of analysis. DVI provides interval measures and forms cultural criteria for RA readings.

3.10 CONCEPTUAL AND DESIGN CHALLENGES

Some conceptual and research design problems that are manifested in studies of culture such as this are:

Apart from the validity and reliability issues pertaining to a cultural instrument already discussed, in order to investigate the convergence of various value measuring instruments, Hofstede (1980) discovered that the measures of values depend strongly on the instrument used and that it is a doubtful practice to use instruments developed in one country for use in another cultural environment. The underlying syndrome can be universal and permanent, but the measuring instruments have to be adopted to the population and to the spirit of the times (Hofstede, 2001:67). Specifically Hofstede's (2001:19) claim that the ethnocentric nature of many cross-cultural studies of organizational behavior has been one of the main reasons for the lack of advance of this art is supported in principle.

However the development of a culture free instrument in the social sciences seems unlikely.

Another challenge is that the spectrum of differences in a multicultural society such as South Africa presents unique challenges in research, however there are signs of narrowing, and the disappearance of gaps across race groups on cognitive test results, indicates greater similarities between people of S.A. (Shuttleworth-Jordan, 1996).

So although it is important to take cultural differences into account, empirical studies indicate that the pattern and sequence of Piagetian stages of cognitive development is universal, however the rate of acquisition may vary amongst different cultures (Mwamwenda, 1995). Undoubtedly there are wide interpersonal differences in degree and pace of acculturation (Foxcroft & Roodt 2002).

In consideration of cross cultural test influences it has been recommended that a clear distinction between racial differences (ethnic factors) and sociocultural differences (primary language, socialization experience, current language usage, level of education and sociocultural status) be made, since the latter is frequently associated with the former (Shuttleworth-Jordan, 1996).

In some cultures people answer all/some questions, use extreme / moderate responses, agree/disagree based on expectations.

The convergence of findings in cross cultural research on response styles indicates, albeit the small empirical basis precludes definite conclusions, that the triplet of age, education, and socioeconomic status – often interrelated - tends to be related to response styles (Van de Vijver & Leung, 2001:1020).

Inspection of various instruments used, according to Hofstede, also indicates that the universe of all human values is not definite and is normally a subjective selection from this unknown universe. This means the content validity of measurements of values is necessarily low.

Value measurements are quantified either on a rating or ranking scale. Hofstede (1998:25) stipulates that rating of one value is as meaningful as the sound of one

hand clapping i.e. most people value both freedom and equality, but differences will only appear when the relative value attached to freedom over equality is examined.

To consolidate, it remains important to remember in studying values we compare individuals, in studying culture we compare societies. Global correlations across all individuals and within society correlations are not the same as between society correlations, which Hofstede calls ecological correlations. Confusion between within system and between system correlations is known as ecological fallacy (Hofstede, 2001:16). Reverse ecological fallacy - i.e. using results across all individuals to make statements about value differences between countries - is still frequent even in articles published by respectable journals. As Hayton et al (2002) confirm these types of studies plunge into tautology trap: aggregate values (culture) predict individual values that are consistent with them.

With regard to modifying instrument, Hofstede (1998:13) warns that a dimension structure with six or seven elements is unlikely to help since new addition would correlate with established dimensions. Also seven categories seem to be the natural limit to information processing of humans. This thesis incorporates all the dimensions using the VSM in order to avoid adopting a stance of political correctness and/or ethnocentric bias by discriminatory selecting only those that could enhance a particular agenda.

As demonstrated in this literature review chapter, with such high interest in the I-C constructs comes a demand for their measurement. From an empirical viewpoint, Hofstede defined I-C according to individuals' perceived importance of work goals. Among the vast array of designs to measure I-C and the constant proliferation of assessment instruments, Singelis and Triandis (1995) have posited that I-C is best considered to be a factor having two underlying dimensions. This factor structure is based on a vertical-horizontal (VH) versus I-C matrix, which is derived from Markus and Kitayama's (1998) distinction of interdependent – independent versus same-different construal. Triandis central

thesis is that measuring V-C, V-I, H-C, and H-I is more desirable than merely measuring the more abstract I-C constructs. All humans carry all four cognitions, but they sample them with different probabilities, depending on the situation (Triandis, Chen, Chan, 1998).

However this broadening of an already overly diffuse construct is criticized by Early and Gibson (1998) in that it does not add substantially to the understanding of I-C more than the original discussion presented by Hofstede in his combination of this construct with power distance.

As evident in this chapter research on cultural dimensions and specifically I-C construct is difficult, especially in methodological terms, because of the immense richness this construct implies. The challenge of creating a coherent construct measure is to link cultural level to individual level constructs; this is now discussed in chapter four.

3.11 CHAPTER SUMMARY

An extensive review of studies examining the influence of culture on entrepreneurship was conducted. Different theoretical perspectives on how culture is conceptualized were debated. Hofstede's depiction of culture was identified as the most relevant pertaining to this thesis. Cultural values were linked to the self-concept and in particular the link between the I-C dimension and entrepreneurship was scrutinized.

Based on the reviewed studies it appears no unified theme exists regarding the relationship between culture and entrepreneurship.

Although an attempt was made to group/categorize various descriptive results, reviews of research as conducted here only qualitatively, can be confusing.

Lastly emphasis was placed on instrument design and the reasons for utilizing the VSM94 were clarified. The anticipated difficulties in methodological terms were also explored.

CHAPTER 4

RESEARCH DESIGN

4.1 INTRODUCTION

As discussed in the literature review sections the major premises of thesis rely on social cognitive theory (SCT). In terms SCT human functioning is explained in terms of triadic reciprocity in which behavior, cognitive/personal, and environmental events all operate as interacting determinants of each other (Bandura, 1986:18).

Although the variables under study emphasize the person – environment interaction (i.e. self-efficacy and cultural values), behavioral intentions result from beliefs and attitudes and become immediate determinants of behavior. In addition ethnic culture influences the structure and processes of a persons cognitions/beliefs making it an antecedent of entrepreneurial self-efficacy and

intentions (Busenitz & Lau, 1996). That self-efficacy is a major cognitive variable in the functioning of any entrepreneur is well-established (Boyd & Vozikis, 1994; Krueger & Brazeal, 1994).

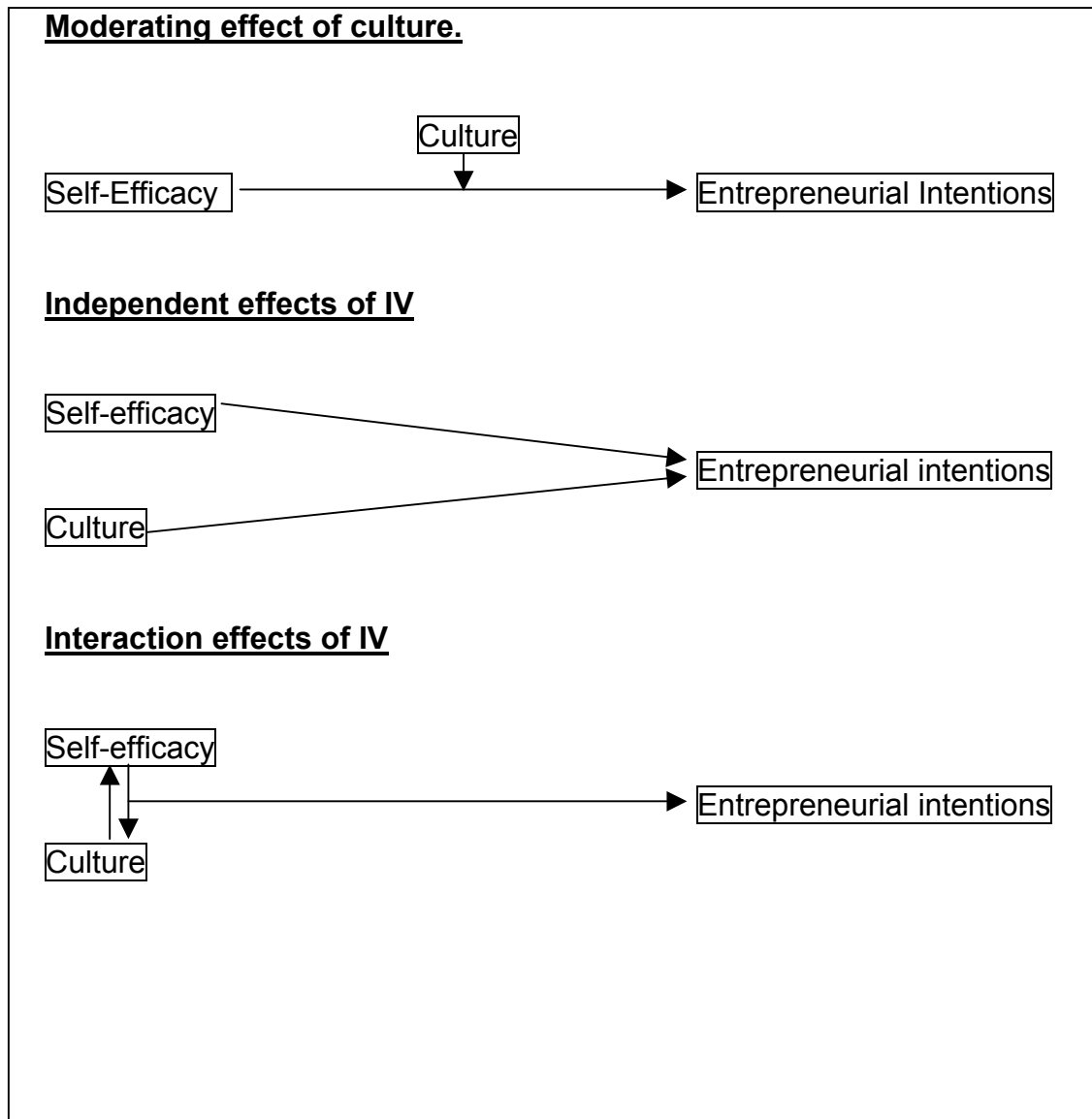
Using cultural values and self-efficacy beliefs to predict entrepreneurial intentions seems to be a more robust approach than rather using personality traits: values and beliefs are more proximal to behavior and intentions than the distal personality traits. Hence when the relations between the independent variables (IV) and dependant variable (DV) are tested, the unanswered variance will be less and the correlations stronger.

Because of the multiplicity of interacting influences as postulated in SCT, the same factor might be part of different blends of conditions, which have different effects. Since the triadic factors do not operate simultaneously as a holistic entity, it is possible to understand how different segments of a two-way causation operate without trying to study every possible interactant at the same time (Bandura, 1986:25). Hence research aimed at estimating the relative percentage of behavioral variation due to persons or to situations is ill suited for clarifying the transactional nature of human behavior; nor is it instructive to read evidence that much of the variation is usually due to the joint effects of person and situational conditions, rather the best suited methodology would specify conditional probabilities that interacting factors will affect each others occurrence.

This advice is of extreme importance in view of previous entrepreneurial trait and characteristic research with assumptions that internal dispositions have influence on behavior and what is the strength of these internal variables as predictors in a particular situation.

Although the hypotheses are couched to imply causality and analyzed as such, it is acknowledged that in fact the relationships between the proposed variables are reciprocally causal in nature.

As a means of exploring contingency relationships, a framework based on prior research and utilized by Lumpkin and Dess (1996) in clarifying their entrepreneurial orientation (EO) construct, provides four alternatives that are useful when investigating how relationships may differ when the multidimensional nature of entrepreneurship is explicitly recognized. These are moderating effects, mediating effects, independent effects, and interaction effects. The hypothesised relationships among the study variables can be schematically represented via these effects as set out in figure one.



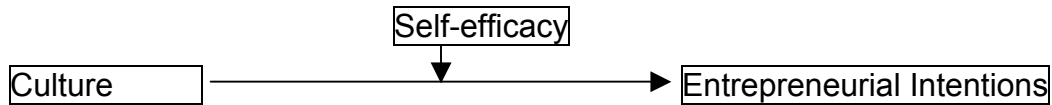
Mediating effect of self-efficacy

Figure 3: Hypothesized relationship among the study variables. Adapted from Lumpkin and Dess (1996).

Such contingency models provide significantly more sophisticated insight into the relationship between variables than do direct effects models given the inherent complexity of entrepreneurship and the large number of related constructs (Chandler & Lyon, 2001). Other intervening factors that may moderate /mediate relationship between study variables are acknowledged and partially accounted for as socio demographic variables.

4.2 METHODOLOGY

This thesis comprises of an empirical study with primary data sources. An attempt is made to determine possible links between cultural dimensions, self-efficacy, and entrepreneurial intentions, i.e. how two independent variables (IV) (antecedents) and one dependant variable (DV) (consequent) are related, associated or linked to the extent that a change in the IV's are the presumed causal, explanatory factor of the other.

The focus of the study is what leads to a greater propensity towards entrepreneurship and not what result from entrepreneurial behavior, therefore the dependent variable are entrepreneurial intentions.

The thesis first examines the particular effect of each independent variable (IV) on the dependant variable (DV). And secondly the combined affect of the IV's in explaining the variation in levels of the DV is investigated. It has been recommended that the introduction of a third variable into analysis of a two variable study helps reduce potential for misleading inferences and permits more precision and rigor.

Each construct was first operationalized and then measured with multiple item scales. Care was taken that the level of measurement of each construct is congruent with the level of analysis. Analysis of the internal consistency reliabilities and any other evidence of the construct validity (i.e. how constructs were operationalized - what is their form, content, and statistical property) are diagnosed for this study's sample.

4.3 DATA COLLECTION AND SAMPLING

Based on the nature of hypotheses formulated it seems that the best research design for data collection is using the survey method.

The term population and universe are always 'constructed' entities within the context of a specific research project (Mouton, 2002:135). Once the target population has been defined it must be made operational through the construction of the sampling frame. The frame selection process for this study can be viewed as a tradeoff between practical considerations on the one hand and the demands of randomization and generalizability on the other.

Randomization via probability sampling is a luxury in cultural research. Selection errors may occur as a consequence of sampling procedure, and sample representativeness may be in question when this happens (Cavusgil & Das, 1997). Sometimes the case for representativeness of judgmental sampling as used in thesis may be strengthened by explicit comparison of sample characteristics with those of defined population (Wilkinson et al, 1999). Under

such circumstances, most feasible course of action was to describe sample characteristics in detail with reference to those factors that may impact the results of their interpretation.

Hence the objective was to use the students on a M.B.A. program and not the general population.

Moreover, given the difficulty of conducting probability sampling in cross cultural research the next best goal is to achieve sampling equivalence, as has been operationalized via matched samples across different ethnic groups.

Groups of matched samples were selected; these groups are from a student population at a tertiary education establishment. The samples are matched in all respects except ethnicity, in order to allow comparison between ethnic groups. These samples represent distinctive ethnic cultures in one national environment.

In most respects the true definition of entrepreneurship is dependent on the nature of the sample selected to represent 'entrepreneurs' (Gartner, 1989:32), i.e. the sample of entrepreneurs is also the operational definition of the entrepreneurs. It therefore becomes important to specify why this particular group of individuals is chosen to represent a particular definition of the entrepreneur, so as to prevent the characteristics of the sample to become both the definition and the result.

By targeting M.B.A. students with work experience, they are more likely than full time students are, with no work experience, to embark on an entrepreneurial career. Scherer et al (1989) suggests that student populations add control and homogeneity to such study because individuals studying business already have interest in pursuing business related careers and students have necessary education required to run a business i.e. they have a basis for evaluating self-efficacy in some skills and abilities used in entrepreneurial careers. Also by using students it is possible to eliminate the possibility that prior success in venture formation influences the respondents self-efficacy beliefs.

Therefore parameters of interest will signify subjects that have a broad range of experience, interests, and attitudes towards entrepreneurship and that this target group has inherent business potential (Krueger et al, 2000:421).

Research has identified those most likely to start a venture as men in mid 30's with tertiary education and established career record.

Sample then also controls for and limits most respondents to the 20-40 age group and level of education (undergraduate studies completed). Subjects should also have the ability to understand the meaning of values being surveyed.

Many countries represent cultural potpourris in themselves, e.g. Asia and India. S.A. is also a culturally heterogeneous society. The control for socio demographics is relevant to the hypotheses formulated since as predicted values generally differ between socio demographic groups. At the same time this sample compensates for lack of control of additional extraneous variables by using data from respondents with diverse socio-cultural backgrounds.

Consistent with previous research on individual differences in entrepreneurship, socio demographic variables reflect ethnic group/ race, age, gender, level of education, and work experience.

Because of the selected matched sample, age and level of education were expected to have a restricted range. Moreover demographics are likely to play a major role in entrepreneurial activity in S.A., in particular with gender differences, with men (25-44 year age group) being twice as likely than women to be new firm entrepreneurs, and one and half times more likely to the owner managers of an established firm. Albeit in latest GEM findings (Foxcroft et al, 2002) entrepreneurial participation in S.A. is almost equal in number between men and women

Finally with regards sampling, it seems apt to quote Bygrave “heart of entrepreneurial process is found in descriptive background and should avoid purists who find safety only in large numbers - the Hawthorne study involved one small group of women” (I, 1989:21). Setting the sample size for this study was based on anticipating subgroup analyses and hence minimum sample size in the smallest subgroup was conducted. Although the size of sample was not to be the focal point of this paper, Hofstede (1991) maintains that a quota control on ethnic groups is necessary in order to ensure that a minimum sample size of 20-50 is achieved for each of these subgroups.

4.3.1 FIELDWORK

As a matter of practicality instrument was distributed to students of the business faculty in a classroom setting, which allowed researcher to maintain control over the environment. This ensured that a high response rate was achieved.

Respondents were required to provide specific biographical background information to be categorized by birthplace, childhood, age, ethnicity and gender.

The questionnaire was administered to MBA students during a workshop session when all students attended. During the Saturday session 70 white, 45 black and 42 Indian responses were accumulated. On Sunday additional Indian and Black responses were requested in order to fulfill sampling quota of 50 per group. Students were also given verbal instruction to include the missing age category of 35-39 that was a typing error undetected in the questionnaire.

Several questionnaires were discarded because in some instances ethnic group was not specified; many were ambiguously answered (South African); others had illegibly written responses. Furthermore surplus white categorizations were discarded as well as six colored ethnic categorizations since it was not anticipated that enough coloured responses would be obtainable.

4.4 DATA ANALYSIS TECHNIQUES

To avoid superficial interpretations theory preceded the use of statistics. The methodologies utilized in different studies have been scrutinized for construct validity and reliability. As delineated in the literature review sections previous research has verified the reliability and validity of the instruments that are used. Based on the mere weight of writing supporting the application of these instruments confirms that their use is justified. Nonetheless even with the *a priori* inclusion of compelling theory, where in some instances, evidence for discriminant and convergent validity of measures already exists, factor analysis and item analysis are used as data analysis techniques in this sample.

The operationalizations of constructs were examined for consistency with the hypotheses formulated for this thesis. It has been asserted that the structural component of construct validity requires analytical techniques to match the theoretical models (Chandler & Lyon, 2001:112).

The final instrument consisted of structured questions with emphasis given to the processes and appeal of instrument design to ensure high response rate.

According to Cooper and Emory (1995:522) if data exceed the assumptions for using automatic interaction detection (AID) or multiple classification analysis (MCA), then by treating the nominal variables values as 0 or 1, it can be used as an independent variable in a multiple regression model. This is mentioned insofar some questions did not yield interval data, e.g. place of birth.

With multiple regression (MR) any combination of categorical and continuous variables can be analyzed by appropriate dummy coding of the categorical variables (Aiken & West, 1991:3). In the final analysis this procedure was not necessary, as the matched sampling required no control variables to be used in regressions.

Finally each question was coded in order to accommodate frequencies for checking statistical analysis, with the double-barreled questions 3 to 29 coded as 3a and 3b etc.

Since the nature of the groups for this study is important, data was collected from individuals from different ethnic/race groups and the appropriate analysis techniques is used i.e. ANOVA.

ANOVA was used to test the significance of differences among group means, i.e. are the groups really different in how they respond to the dependent variable or are differences in mean scores due to sampling error. This assess whether the variability between the groups means is greater than would be expected by chance based on the variability within the group. The test statistic for ANOVA is the F ratio, the F ratio provides a test of the overall differences among groups, but it was necessary to test differences between specific groups. Since different ethnic groups are examined, Duncan's multiple range tests were used to test differences in median scores across ethnic groups.

Differences between the means of each cultural group for the five dimensions are significant or not. No significant differences would indicate any cultural effects on entrepreneurial intentions.

Although ANOVA may be mathematically considered to be a special case of multiple regression (MR), the traditions associated with these two approaches have led to important differences for researchers (ANOVA was designed for analysis of planned experiments, whereas MR was developed for analysis of non

experimental observational and survey data) (Aiken & West, 1991:173).

Researchers trained in ANOVA pay substantial costs insofar as median splits of continuous variables throw away information, reducing the power of the statistical test, and they make it much more difficult to detect significant effects when they in fact do exist (Aiken & West, 1991).

In MR it is necessary to specify each of the terms to be included in the regression equation; this emphasizes the importance of allowing theory and previous research to guide the development of the model, a requirement unfamiliar to ANOVA researchers. In MR when theory is unclear about nature of main effect or interaction effect of some of the variables, additional terms may be introduced into the equation to represent such potential influences.

Multiple correlations and multiple regression analysis were performed to determine the predicted relationship between the specified variables.

With correlation one calculates an index measure of the nature of the relationship between variables. With regression one can predict the values of a DV (Cooper & Emory, 1995: 477).

It has been suggested that the correlation significance should be checked before making comparisons (Cooper & Emory, 1995:485). The hypothesis is a one tailed test and null hypothesis states a correlation of zero, with a correlation significant at a 95% probability level.

A correlation matrix is used to display coefficients for more than two variables, and it is important to remember that one variable correlates meaningfully with another only when there is a common causal bond that links the phenomena of both variables in a logical and causal relationship (Leedy, 1993: 277).

To evaluate the hypothesized relationships, multiple regression is used. The use of multiple regression allows for the partitioning of variance with correlated predictors, thereby reducing the likelihood of making a Type 1 error. The coefficient of multiple determinations is used to compute the proportion of the

variance of the DV that is due to the combined effects of the IV's (Cohen & Holliday, 1998:98). The sign of the regression coefficients provides an indication of the nature of the relationship between the variables under study.

The familiar stepwise multiple regression format, where one can implement it in a 'forward' form where variables are added to determine which variables make a significant incremental contribution, or the 'backward' form where variables are eliminated that do not make a statistically significant incremental contribution, is used. The purpose of stepwise approach is to let the data build the regression equation (Sudman & Blair, 1998: 538). In general fishing expeditions where variables are included because they might be useful is discouraged because they are likely to result in inflated Type I error rates.

In discussing interactive models using regression analysis, Bobko (2001:218) notes that by adding product terms, e.g. Performance = ability x motivation, this increases the flexibility of most social science models. The introduction of an interaction term in regression allows one to start with a linear relationship between the DV and IV1 and consider the possibility that the relationship changes as a function of IV2. The multiplication of the variables in question should increase the coefficient of determination if there is an interaction effect. Furthermore interactions can be represented as product terms and curvilinear relationships* can be represented through higher order terms in the regression equation.

Furthermore the choice of a moderator depends on the context and should not be confused with mediators, which are typically embedded in fairly strict causal models (Bobko, 2001:231). Moderator variables are central to theories that posit that the relationship between two variables is contingent on the value of a third variable. A study that examines the relative power of moderated multiple regression, finds that it always proves superior to subgroup correlation coefficients in the detection of moderating effects (Stone – Romero & Anderson, 1994:354).

Typically moderator analysis occurs in two stages; moderator detection and moderator estimation (Steel, Kammeyer-Mueller, 2002:96). This thesis attempts to determine what proportion of variance can be attributed to which moderator variables, for that reason it is concerned with moderator estimation.

* A separate hypothesis could be formulated at later stage to reflect both IV's which are susceptible to take the form of a monotonically increasing / decreasing curvilinear relationship or a U- shaped/ inverted U- shaped function; high self efficacy can result in overconfidence and negatively relate to performance (Vancouver et al, 2002), and likewise unduly high IDV can result in decreased entrepreneurship (Morris et al, 1994).

CHAPTER 5

PRESENTATION AND INTERPRETATION OF FINDINGS

5.1 FACTOR ANALYSIS AND ITEM ANALYSIS

With principal component analysis (PCA) for the results of an analysis to be reliable, the minimum number of observations in a sample should be at least five times the number of variables, i.e. the subject to variables (STV) ratio should be five or greater (Bryant & Yarnold, 1995:100). This was achieved by securing 150 individual responses for this study.

The responses from the participants in the study were subjected to factor analysis, which allowed intercorrelations between the factors to be revealed. Maximum likelihood's factor analysis was performed, with maximum 50 iterations for rotation. Direct quartimin rotation for simple loadings was used. Factor loadings greater or equal to .30 were regarded as significant, and factors with eigenvalues greater than 1 (based on scree tests and Kaisers stopping rule) were used to decide on optimal number of factors to retain. The alpha for each individual factor was calculated by using only those variables chosen for their loading in the sorted rotated factor-loading matrix. For each factor only the variables displaying a positive rotated factor loading on that factor, as well as a zero loading on all other factors was selected.

The factor analysis was conducted as per the three scales identified in the study. Namely questions 1 to 11 representing entrepreneurial intentions, questions 12 to 29 the self efficacy scales, and questions 30 to question 49 cultural values. Questions 50 to 54 were the sample characteristics and are represented as such. Question 55 was left out for purposes of interpretation as question 54 provided adequate information on ethnic group identity.

The initial results indicated that several of the original items on the scales used did not load satisfactory on any factors in the selected factor solution. Items with maximum factor loadings less than 0.30 were omitted as well as items that loaded significantly on more than one factor. With these omissions further analysis yielded the following accepted factor solutions.

Entrepreneurial intentions (entint)—eleven items constituting 20 variables were used in the factor analysis to represent this scale. The items which consisted of double-barreled questions were analyzed as variable 3 a, 3b, etc. These measures were the sum of the values weighted by the expected likelihood's/ perceived importance (each item using a 5 point Likert scale).

1, 2 and 4 factor solutions were calculated. The accepted 1 factor solution, which seemed to represent a unidimensional scale, had eigenvalue of 9.286, with alpha of 0.936, and which explained 8.731 of the variance. The rotated factor loadings varied between 0.359 and 0.844 for this factor.

Self-efficacy—18 items were used in the factor analysis.

- Self-efficacy magnitude was defined as the total number of yes answers divided by the total number of items; these are abbreviated as sm1, sm 2, sm3, sm4.
- Self-efficacy strength is the mean confidence rating using the 5-point scale. Summing all the scores across items and dividing by the total number of items computes self-efficacy strength, these are abbreviated as ss1, ss 2, ss3, and ss4.
- Total self-efficacy, i.e. self-efficacy composite measure of strength and magnitude are computed by taking raw scores of self-efficacy strength and then summed across self-efficacy magnitudes that answered yes, these are abbreviated as sc1, sc 2, sc3, sc4.

Two, three, and four factor solutions were calculated, the accepted 4 factor solution, with variables 25; 26; 27 left out, seemed to represent the distinct GSE scale as well as the ESE subscales of marketing, innovation and financial control. Hence factor one represents the GSE, factor two the ESE marketing subscale, factor three the ESE innovation subscale, factor four the ESE financial control subscale, with the ESE management subscale left out. These are represented as the composite measures; sc1, sc2, sc3, and sc4 respectively.

This 4-factor solution had eigenvalues of 6.414; 2.210; 1.307; 1.042 respectively. The alpha for all variables was 0.898, and the variance explained by the factors was 4.484; 1.772; 1.669; 1.566 respectively. The rotated factor loadings varied between 0.545 and 0.997 for these four factors. The factor correlations for these rotated factors indicated factor 1 correlated 0.468; 0.121; 0.459 with factor 2, 3 and 4 respectively. Other significant correlations indicated factor 4 correlated 0.446 with factor 2, and 0.340 with factor 3.

Cultural values-- 2, 3, and 4 factor solutions were calculated, none of these factor solutions could adequately distinguish any of the dimensions that this scale was meant to be measuring. The abbreviations for the dimensions are: individualism – collectivism (IDV), power distance (PDI), uncertainty avoidance (UAI), masculinity - femininity (MAS), long term vs. short term orientation (LTO).

The item analysis for all items was based on the individual participants' unweighted ratings for each item. Item analysis for the 20 cultural variables revealed item scale correlations between 0.37 and 0.81. However the scale intercorrelations for the five cultural dimensions were in some instances high: for instance scale 1 (IDV) intercorrelated 0.534; 0.430; 0.084; 0.456 with scales 2 (PDI), 3 (UAI), 4 (MAS) and 5 (LTO) respectively.

Based on the cultural dimension item analysis the scale statistics rendered the following means, standard deviations, and alphas for the respective dimensions and are reported in table 1.

Table 1: Item analysis statistics for cultural values

CULTURAL DIMENSIONS	MEAN	STD DEV	ALPHA
IDV	1.892	0.648	0.698
PDI	2.241	0.605	0.412
MAS	2.423	0.535	0.198
UAI	3.102	0.590	0.233
LTO	2.320	0.818	0.797

As anticipated the lack of reliability in this cultural measure is evident. Only the LTO dimension with an alpha above 0.7, and the IDV to some extent with alpha of 0.698 is considered adequate for internal consistency (Nunnally, 1978).

According to the architect of the instrument, Hofstede (2001:463); because the VSM 94's reliability can only be tested across cultures/regions/ethnic groups, Cronbach alpha reliability coefficients across individuals are irrelevant. Culture is no king-size personality; culture is formed through interaction of different people. Culture presupposes a collectivity.

Despite this distinction researchers attempt to evaluate the psychometric properties of the VSM 94, which then yields inconsistent factor extraction per the five dimensions as well as poor reliability coefficients as evident in this analysis.

Hofstede (2001:463) claims the VSM 94 was developed especially for replications; novice researchers forgetting that cultures are being compared apply reliability calculations and find very low values. However reliability can only be tested across at least 10 countries.

Despite heeding this advice Spector, Cooper and Sparks (2001) using 23 nations at the country level of analysis found low internal consistencies (coefficient alpha). A replication of Hofstede's ecological factor analysis failed to support the five subscales in their study as well. This finding together with the results of this

samples finding prevents the unambiguous interpretation of the internal consistency of the VSM measure.

However with regards reliability the particular estimate of reliability that is selected depends on the particular error producing factors one seeks to identify. If as reflected in the preceding instrument design sections, error factors are associated with the use of different items then internal consistency estimates, such as coefficient alpha are used. Cronbachs coefficient alpha has the most utility for multi-scales at interval level of measurement (Cooper & Emory, 1995:155). Generally a value above 0.7 is considered adequate for internal consistency (Nunnally, 1978). However calculations conducted by Cortina (1993:103) show that alpha can be high and acceptable by the standards of many (greater than 0.7), in spite of low average item intercorrelations or multidimensionality, provided there are a sufficient number of items. It can be argued that multidimensionality is irrelevant because if a test has an acceptable alpha, then it is free of error associated with using different items. However this does not mean that the total score on a multidimensionality test has an unequivocal interpretation. An adequate alpha (number of items notwithstanding) suggests only that split halves of the test is highly correlated, it does not indicate the extent to which the two halves are measuring constructs intended to measure. Therefore construct validation remains pivotal to establish meaning of the measure. Furthermore Cortina (1993) approaches the issue of dimensionality by examining the confusion in the literature of the terms internal consistency and homogeneity. A distinction between the two is that the former refers to the degree of interrelatedness among items, whereas the latter refers to unidimensionality. The conclusion with respect to what alpha measures is that it is a function of interrelatedness, although this does not imply unidimensionality or homogeneity. So, as suggested by Spector et al these dimensions could be multidimensional, making it difficult to capture them with such a short scale of four items per cultural dimension. Different items tapping different aspects may further compound the vague reliability of this instrument.

Nonetheless Hofstede maintains that the reliability is implicitly tested through proven validity. So if validity is proven, reliability can be assumed (Hofstede, 2001:497). Validity of Hofstede's dimensions has been extensively realized through significant correlations of results with outside criteria related to the scores by theory. Impressive summaries of studies showing significant relations with one or more indexes, other than through correlation coefficients are documented (Hofstede, 2001). Since an unreliable test cannot produce scores that relate meaningfully to outside data this vindicates to some degree the reliability issues of the VSM 94. Experience with the VSM is limited, so negative signals about its reliability and validity should be seen as an ongoing research effort (Hofstede, 2001:497).

5.2 DESCRIPTIVE STATISTICS

Descriptive statistics for the variables under study was calculated i.e. statistical measures of location spread and shape to reveal skewness, kurtosis, means, and standard deviations. All provide information to assist in deciding whether the central location value can be regarded as a reliable, representative value of all the observations in data. Moreover by calculating the standard deviation of the theoretical distribution of sample means (the standard error of mean), one is able to predict, with varying degrees of confidence (95% in this case), how far the sample mean lies from population mean (Cohen & Holliday, 1998:104).

Because the hypotheses predict the direction in which we expect the difference to be situated (i.e. higher entrepreneurial intentions) the study in consequence is concerned with a one tailed test. One tailed because only a significant higher sample mean will reject null hypothesis.

Sample characteristics (question 50 - question 54) are represented as bar charts in the following figures.

Figure 4: Sample characteristics: sex of respondents

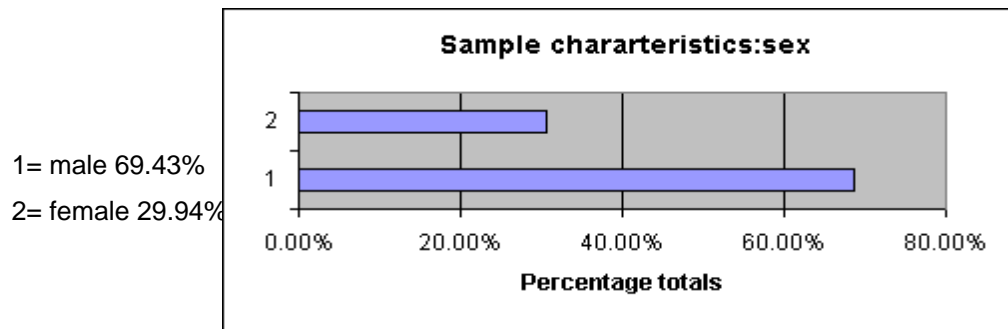


Figure 5: Sample characteristics: Age of respondents

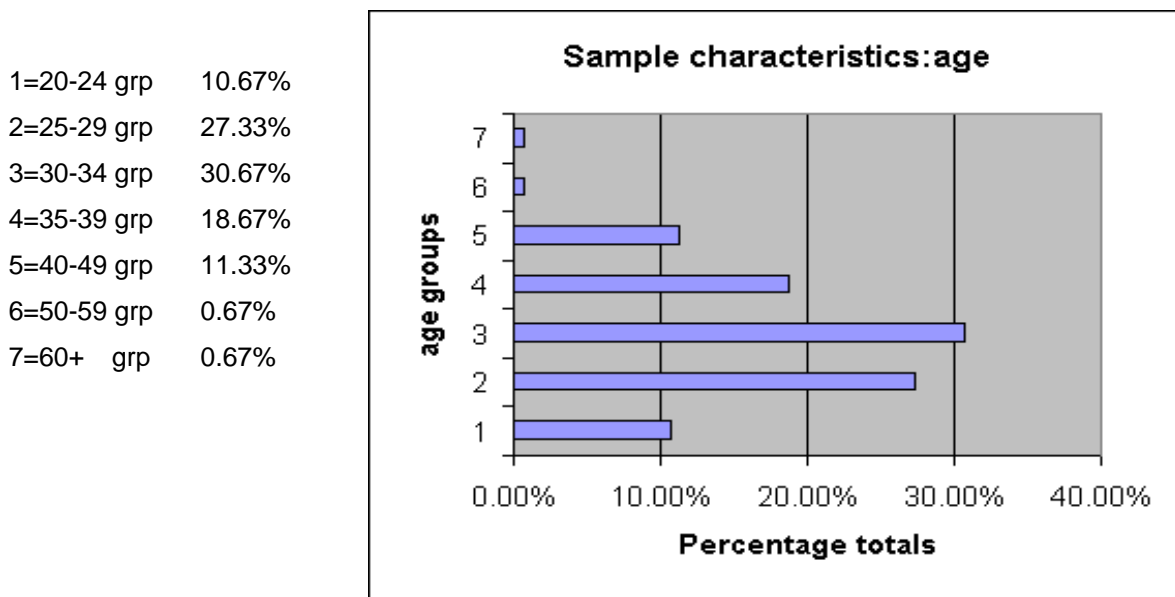


Figure 6: Sample characteristics: Years of education of respondents

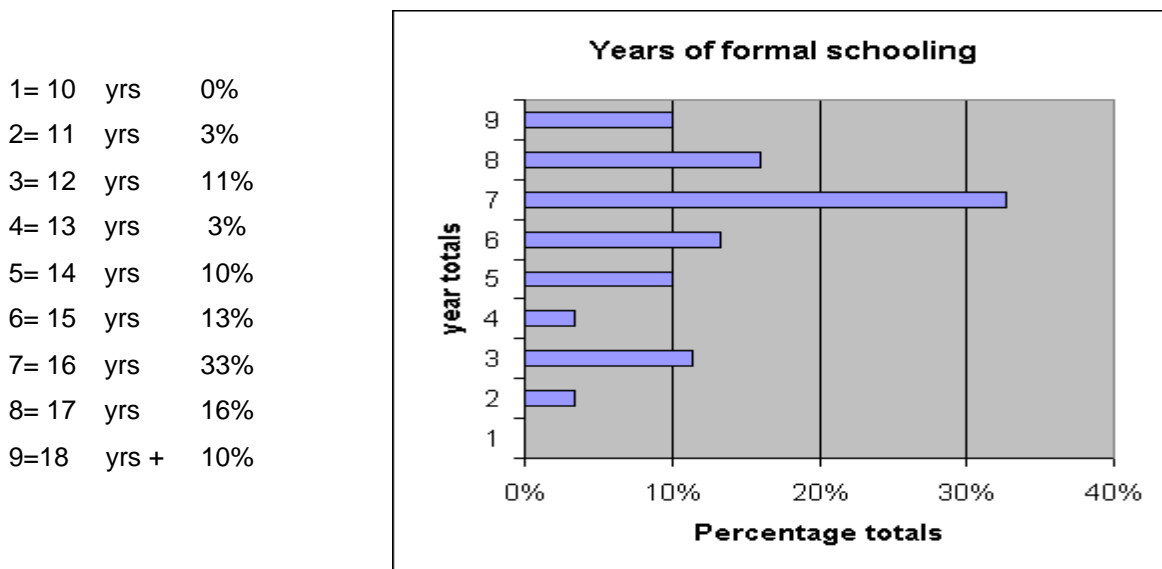
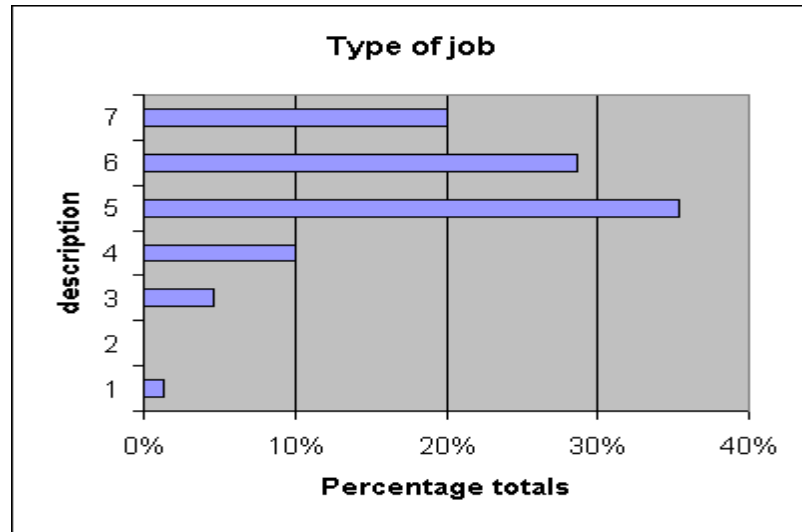


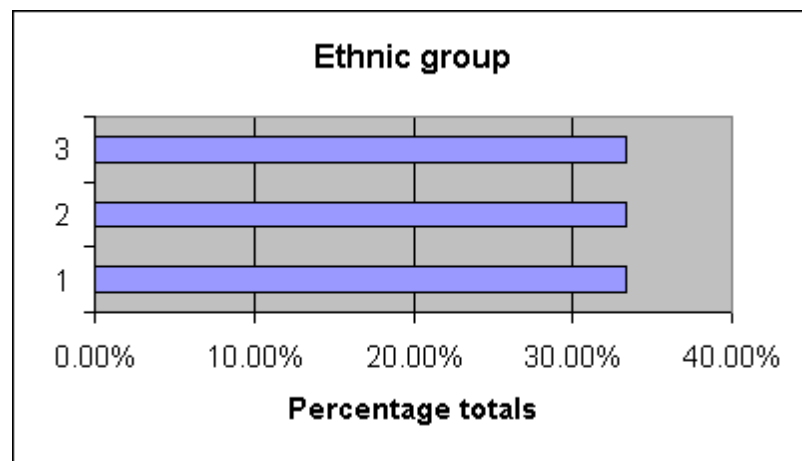
Figure 7: Sample characteristics: Type of job of respondents



1	No paid job (including fulltime students)	1%
2	Unskilled or semiskilled manual worker	0%
3	Generally trained office worker or secretary	5%
4	Vocationally trained craftsperson, technician, informatician, or equivalent	10%
5	Academically trained professional or equivalent (but no manger of people)	35%
6	Manager of one or more subordinates (non managers)	29%
7	Manger of one or more managers	20%

Figure 8: Sample characteristics: Ethnicity of respondents

1= INDIAN	33.33%
2= BLACK	33.33%
3= CAUCASIAN	33.33%



The typical profile of a respondent based on the above data is:

Male, 30-34 old, with 16 years of education, working as an academically trained professional, and belongs to one of the three ethnic groups.

Simple statistics as per the identified variables are portrayed below in table 2:

Table 2: Simple Statistics for variables

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
entint	150	2.52500	0.73605	378.75000	1.00000	5.00000
pdi	150	-2.30000	45.33111	-345.00000	-120.00000	150.00000
UAI	150	46.36667	69.91581	6955	-135.00000	280.00000
idv	150	82.46667	46.93901	12370	-55.00000	205.00000
mas	150	30.46667	92.91214	4570	-190.00000	250.00000
lto	150	45.20000	22.51681	6780	-20.00000	120.00000
tsc	150	36.16667	8.90096	5425	19.00000	71.00000
sc1	150	15.04000	4.90566	2256	0	36.00000
sc2	150	6.84667	2.21264	1027	0	12.00000
sc3	150	3.94667	1.84568	592.00000	0	9.00000
sc4	150	4.17333	1.64560	626.00000	0	8.00000

Based on these variables some observations are that entrepreneurial intention (entint) with a mean of 2.52 is a midpoint average of the 1-5 rating scales used, with a relatively low standard deviation (0.736).

Next the cultural dimensions (PDI, UAI, IDV, MAS, and LTO) are based on the VSM index computational formulas, at the level of individual subjects, as stipulated for calculating the scores per each dimension. The scores are based on the original index values ranging from 0 to 100; these mean value scores are not compared to the original IBM index scores for reasons already discussed. It must be noted that substantial standard deviation exists in all of the scores.

A negative mean score of -2.300 obtained for the PDI dimension was not fully understood despite checking calculations.

In order from highest scores to lowest the dimensions are; IDV, UAI, LTO, MAS, PDI.

Because of the way the represented scores were calculated they occupy relative not absolute positions of the different ethnic groups, ie they measure differences only and are meaningful only when compared to each other.

The self efficacy variables (tsc and sc1 to sc4) are measured by the mean value of the Likert type 5 point scaled items. The means of the self-efficacy composite measures are varied with a total self-efficacy composite (tsc) mean of 36.16 and standard deviation of 8.90. The highest mean score is for sc1-GSE; followed by sc2- ESE MARKETING; sc4- ESE FINANCE CONTROL; sc3- ESE INNOVATION.

Following the above procedure the indexes for each dimension and entrepreneurial intentions with mean scores were tabulated for each ethnic group, see table 3.

**Table 3: The means procedure with group cultural dimensions and entint:
1= Indian; 2= Black; 3= Caucasian**

<i>N</i>					
<i>Groups</i>	<i>Obs</i>	<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>STD Dev</i>
1	50	PDI	50	1.1000000	38.5223232
		UAI	50	59.7000000	62.5594411
		IDV	50	77.7000000	34.9228012
		MAS	50	20.0000000	92.2507674
		LTO	50	40.4000000	21.9424107
		EI	50	2.492000	0.8000230
2	50	PDI	50	6.9000000	54.6219848
		UAI	50	50.1000000	85.8302192
		IDV	50	78.7000000	50.1508948
		MAS	50	9.6000000	93.8074450
		LTO	50	41.2000000	22.2820510
		EI	50	2.689000	0.7365314
3	50	PDI	50	-14.9000000	38.9988226
		UAI	50	29.3000000	55.5952024
		IDV	50	91.0000000	53.4140546
		MAS	50	61.8000000	85.9209414
		LTO	50	54.0000000	21.0926044
		EI	50	2.394000	0.6471791

Referring to table 3, the mean values varied between the 3 ethnic groups from 1.10 to 91.0. For instance a mean of 59.700 for Indians on the UAI dimension was interpreted as relatively higher than the 50.10 obtained by Blacks and 29.300 obtained by Caucasians.

By inspecting the means and standard deviations within each ethnic group there is evidence that responses are not homogeneous. Even within the groups a wide range of responses (high standard deviations) suggest that although mean differences among groups exist, within group also signals a wide range of cultural values.

The same procedure was conducted with self-efficacy scores – see table 4. Referring to table 4, the mean values on all the items varied between the 3 groups from 0.820 to 38.36. The self-efficacy composite measures showed comparatively little differences in scores between the groups.

Table 4: The means procedure for self efficacy with group 1= Indian; 2= Black; 3= Caucasian

Group	N Obs	Variable	N	Mean	Std Dev
1	50	sm1	50	0.9925000	0.0392045
		sm2	50	0.9466667	0.2060315
		sm3	50	0.9600000	0.1370238
		sm4	50	0.9800000	0.1414214
		tsm	50	0.9766667	0.0562205
		ss1	50	2.0600000	0.5698863
		ss2	50	2.4200000	0.6201821
		ss3	50	2.3300000	0.6970053
		ss4	50	2.2800000	0.7010197
		tss	50	2.1988889	0.4502302
		sc1	50	16.3000000	4.5770055
		sc2	50	6.7800000	2.3060701
		sc3	50	4.4200000	1.3414887
		sc4	50	4.5200000	1.5015638
		tsc	50	38.3600000	7.6924559
2	50	sm1	50	0.9600000	0.1524460
		sm2	50	0.9066667	0.2133843
		sm3	50	0.8200000	0.3313547
		sm4	50	0.9200000	0.2547508
		tsm	50	0.9288889	0.1105656
		ss1	50	1.9725000	0.6025509
		ss2	50	2.6466667	0.6714455
		ss3	50	2.4300000	1.0546786
		ss4	50	2.3900000	0.9437766
		tss	50	2.2322222	0.5002758
		sc1	50	15.0400000	4.9937103
		sc2	50	6.9400000	2.3422473
		sc3	50	3.5000000	2.1213203
		sc4	50	4.1600000	1.9204591
		tsc	50	35.8800000	9.4299566
3	50	sm1	50	0.9975000	0.0176777
		sm2	50	0.9866667	0.0659829
		sm3	50	0.8900000	0.2727412
		sm4	50	0.9900000	0.0707107
		tsm	50	0.9788889	0.0433104
		ss1	50	1.7275000	0.6194601
		ss2	50	2.3133333	0.6543419
		ss3	50	2.3500000	0.9435603
		ss4	50	1.9300000	0.7143571
		tss	50	1.9722222	0.4963015
		sc1	50	13.7800000	4.9043504
		sc2	50	6.8200000	2.0171712
		sc3	50	3.9200000	1.9042380
		sc4	50	3.8400000	1.4337051
		tsc	50	34.2600000	9.1714063

5.3 ANOVA

Next ANOVA was calculated using the indexes. The dependant variables (DV) are the five cultural dimensions and entrepreneurial intentions (EI). See table 5.

Table 5: ANOVA for cultural indexes and entrepreneurial intentions

<i>DV</i>	<i>F VALUE</i>	<i>Pr > F</i>
PDI	3.19	0.0439*
UAI	2.52	0.0839
IDV	1.25	0.2898
MAS	4.64	0.0111*
LTO	6.14	0.0027*
EI	2.11	0.1244

* Values are significant at 0.05 levels.

The above table was interpreted as follows: for dimension PDI there is a .0439 (4.39%) probability of obtaining an F Value of 3.19 or higher if there are no differences among group means in the population. Since this probability does not exceed 0.05 one can conclude that there are significant differences for PDI, as well as MAS and LTO dimensions, between the ethnic groups. However to determine which specific groups differ on which dimension a more stringent test i.e. the Duncan's Multiple Range Test for the dimensions was calculated next, see table 6. This test controls the Type I comparisonwise error rate, not the experimentwise error rate, with:

Duncan grouping	A	B
Alpha	0.05	
Error Degrees of Freedom	147	

Table 6: Duncan's multiple range test for cultural dimensions and EI.

	<u>Indian</u>	<u>Black</u>	<u>Caucasian</u>
	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>
PDI	AB 1.100	A 6.900	B -14.900
UAI	A 59.70	AB 50.10	B 29.30
IDV	A 77.700	A 78.700	A 91.000
MAS	B 20.00	B 9.60	A 61.80
LTO	B 40.400	B 41.200	A 54.000
EI	A 2.4920	A 2.6890	A 2.3940

Please note means with not the same letter (A/B) are significantly different.

Referring to table 6, for the PDI dimension, Blacks are significantly different from Caucasian.

For the UAI dimension, Indians are significantly different from Caucasian.

For the IDV dimension there is no significant difference between the groups.

For the MAS dimension, Caucasians are significantly different from both Indians and Blacks.

For the LTO dimension, Caucasians are significantly different from Indian and Blacks.

For EI there is no significant difference between the groups.

The higher or lower mean index scores for the dimensions can be interpreted as:

- PDI is highest among Blacks (6.90)

- UAI is highest among Indians (59.70), although not statistically significant.
- IDV is highest among Caucasians (91.00), although not statistically significant.
- MAS is highest among Caucasians (61.80)
- LTO is highest among Caucasians (54.00)
- EI is highest among Blacks (2.689), although not statistically significant

Following these above procedures the ANOVA for each self-efficacy measures (as calculated in the factor analysis section) were tabulated for each group. ANOVA was calculated using the self-efficacy measures with individual scores. The dependant variables (DV) are the separate self efficacy magnitudes, strengths and composite measures. See table 7.

Table 7: ANOVA for self efficacy scores

<i>DV</i>	<i>F VALUE</i>	<i>Pr > F</i>
sm1	2.48	0.0874
sm2	2.60	0.0777
sm3	3.62	0.0292*
sm4	2.39	0.0950
tsm	6.93	0.0013*
ss1	4.16	0.0175*
ss2	3.44	0.0347*
ss3	0.17	0.8449
ss4	4.57	0.0118*
tss	4.29	0.0154*
sc1	3.40	0.0358*
sc2	0.07	0.9325
sc3	3.21	0.0434*
sc4	2.17	0.1178
tsc	2.75	0.0669

* Values are significant at 0.05 levels.

The above table 7 was interpreted as follows: For self efficacy composite measures, sc1 is significant with a 0.0358 probability of obtaining a 3.40 F value. And sc3 is significant with a 0.0434 probability of obtaining a 3.21 F value.

For self efficacy magnitude (sm3) and total self efficacy magnitude (tsm) there is a .0292 (2.92 %) and .0013 (0.13 %) probability of obtaining an F Value of 3.62 and 6.93 respectively, or higher if there are no differences among group means in the population. Since these probabilities do not exceed 0.05 one can conclude that there are significant differences for sm3 and tsm.

For self-efficacy strength - ss1, ss2, ss4 as well as tss are all significant at the 0.05 level.

The Duncan's Multiple Range Test for the dimensions was calculated next, see table 8.

Duncan grouping	A	B
Alpha	0.05	
Error Degrees of Freedom	147	

Table 8: Duncan's multiple range tests for self-efficacy measures.

	Indian	Black	Caucasian
	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>
sm1	A <u>0.999</u>	A <u>0.960</u>	A <u>0.997</u>
sm2	AB <u>0.946</u>	B <u>0.906</u>	A <u>0.986</u>
sm3	A <u>0.960</u>	B <u>0.820</u>	AB <u>0.890</u>
sm4	A <u>0.980</u>	A <u>0.920</u>	A <u>0.990</u>
tsm	A <u>0.976</u>	B <u>0.928</u>	A <u>0.978</u>
ss1	A <u>2.060</u>	A <u>1.972</u>	B <u>1.727</u>
ss2	AB <u>2.420</u>	A <u>2.646</u>	B <u>2.313</u>
ss3	A <u>2.330</u>	A <u>2.430</u>	A <u>2.350</u>
ss4	A <u>2.280</u>	A <u>2.390</u>	B <u>1.930</u>
tss	A <u>2.198</u>	A <u>2.232</u>	B <u>1.972</u>
sc1	A <u>16.300</u>	AB <u>15.040</u>	B <u>13.780</u>
sc2	A <u>6.780</u>	A <u>6.940</u>	A <u>6.820</u>
sc3	A <u>4.420</u>	B <u>3.500</u>	AB <u>3.920</u>
sc4	A <u>4.520</u>	AB <u>4.160</u>	B <u>3.840</u>
tsc	A <u>38.360</u>	AB <u>35.880</u>	B <u>34.260</u>

Please note means with not the same letter (A/B) are significantly different

Referring to table 8 and analyzing the total self efficacy strengths, magnitudes and composites for the tsm (magnitude) measure Blacks are significantly different from Caucasians and Indians.

- For the tss (strength) measure Caucasians are significantly different from Blacks and Indians.
- For tsc (composite) Indians and Caucasians are significantly different from each other.

The higher means reflect the higher levels of self-efficacy measures per specific group.

Upon completion of ANOVA's the ultimate purpose of the thesis was now investigated by utilizing correlation and multiple regressions to determine possible relationships between scores on the constructs.

5.4 CORRELATIONS

Table 9 represents the correlations between the variables under study.

The Pearson Correlation Coefficients are reported with the values in the second line of each row indicating the p values: N = 150.

Table 9: Pearson correlation coefficients and p values for factors

		1	2	3	4	5	6	7	8	9	10	11
1	Entint	1.000	0.077 0.344	0.064 0.430	0.003 0.970	0.064 0.431	0.012 0.876	0.294 0.002	0.284 0.004	0.286 0.004	0.112 0.169	0.167 0.040
2	Pdi	0.077 0.344	1.000	-0.006 0.934	-0.003 0.971	-0.252 0.001	-0.189 0.020	0.095 0.246	0.019 0.809	0.161 0.049	0.085 0.297	0.026 0.743
3	Uai	0.064 0.430	-0.006 0.934	1.000	-0.110 0.177	-0.015 0.855	-0.123 0.133	-0.035 0.666	0.002 0.978	-0.002 0.975	-0.092 0.258	-0.007 0.926
4	Idv	0.003 0.970	-0.002 0.971	-0.110 0.177	1.000	0.011 0.886	0.111 0.173	-0.292 0.000	-0.306 0.000	-0.034 0.675	-0.118 0.147	-0.274 0.000
5	Mas	0.064 0.431	-0.252 0.001	-0.015 0.855	0.011 0.886	1.000	0.202 0.012	0.086 0.290	0.084 0.306	-0.002 0.974	0.097 0.236	0.054 0.505
6	Lto	0.012 0.876	-0.189 0.020	-0.123 0.133	0.111 0.173	0.202 0.012	1.000	-0.181 0.026	-0.144 0.078	-0.145 0.075	-0.015 0.847	-0.096 0.238
7	Tsc	0.294 0.000	0.095 0.246	-0.035 0.666	-0.292 0.000	0.086 0.290	-0.181 0.026	1.000	0.855 0.000	0.540 0.000	0.580 0.000	0.738 0.000
8	Sc1	0.284 0.000	0.019 0.809	0.002 0.978	-0.306 0.000	0.084 0.306	-0.144 0.078	0.855 0.000	1.000	0.231 0.004	0.312 0.000	0.556 0.000
9	Sc2	0.286 0.000	0.161 0.049	-0.002 0.975	-0.034 0.675	-0.002 0.975	-0.145 0.075	0.540 0.000	0.231 0.004	1.000	0.144 0.078	0.333 0.000
10	Sc3	0.112 0.169	0.085 0.297	-0.092 0.258	-0.118 0.147	0.097 0.236	-0.015 0.847	0.580 0.000	0.312 0.000	0.144 0.078	1.000	0.405 0.000
11	Sc4	0.167 0.040	0.026 0.743	-0.007 0.926	-0.274 0.000	0.054 0.505	-0.096 0.238	0.738 0.000	0.556 0.000	0.333 0.000	0.405 0.000	1.000

Observations based on the above tables indicate correlation coefficients varying between 0.00219 and 0.85504. The level of correlations is generally low even though in some instances they are statistically significant.

These correlation coefficients between the variables indicate 42 overall significant correlations at the 95% confidence level.

Specifically correlations for the IV's with the DV (entint) yield 4 significant correlation coefficients (tsc—29.4%, sc1—28.4%, sc2—28.6%, and sc4—16.7%) and the 6 remaining correlation coefficients are not statistically significant, i.e. the DV correlated with self efficacy but not cultural values.

According to Cohen and Holliday (1998:101), a multiple correlation coefficient of 0.7 or above is considered a high relationship. Anastasia and Urbani (1997) maintain it should be high enough to be statistically significant at the 0.05 and 0.01 levels.

Although anticipated in the literature review chapters, the results reveal that variables do not seem to be vulnerable to multicollinearity (when some or all the IV's are highly correlated).

For self efficacy measures there are several relatively high intercorrelations between these variables.

Tsc intercorrelated with sc1 (0.855), and with sc2 (0.540), and with sc3 (0.580), and with sc4 (0.738). This is not extraordinary since the individual self efficacy composite measures add up to total self efficacy composite.

The cultural values are not intercorrelated.

This all means that entrepreneurial intentions are independent of cultural dimensions and partially dependant on self efficacy.

It is also worth noting that with large samples even exceedingly low coefficients can be statistically significant, but a coefficient is not remarkable simply because it is statistically significant (Cooper & Emory, 1995:488).

Some variables have negative direction of associations suggesting the lower the particular variable the higher the other variable, for instance the correlation coefficient for LTO is -0.189 when correlated with PDI.

5.5 MULTIPLE REGRESSIONS

The regression procedure was executed next. Table 10 represents model 1 of the regressions.

Table 10: Model 1 of regression with nine variables entered

Model 1: Dependent variable: entint					
Analysis of variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	9	12.77714	1.41968	2.93	0.0033
Error	140	67.94661	0.48533		
Corrected Total	149	80.72375			
	Root MSE	0.69666	R-Square	0.1583	
	Dependent Mean	2.52500	Adj R-Sq	0.1042	
	Coeff Var	27.59043			
Parameter Es	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Variable					
Intercept	1	1.10201	0.33414	3.30	0.0012
pdi	1	0.00098441	0.00134	0.74	0.4632
UAi	1	0.00092512	0.00083187	1.11	0.2680
idv	1	0.00136	0.00130	1.04	0.2989
mas	1	0.00031510	0.00065157	0.48	0.6294
lto	1	0.00290	0.00269	1.08	0.2822
sc1	1	0.04282	0.01452	2.95	0.0037
sc2	1	0.08006	0.02799	2.86	0.0049
sc3	1	0.00818	0.03451	0.24	0.8130
sc4	1	-0.02278	0.04554	-0.50	0.6176

Based on this above model, where all the cultural and self efficacy variables were entered an R square 0.1583 was obtained indicating 15.83% of the variation in the DV is attributable to variation across the levels of the nine variables in this model. This is rather weak since 84% remains unexplained variance. The adjusted R square 0.1042 indicates the models' goodness of fit to population.

Although no rule exists regarding what fraction of variance needs to be explained to make relationships strong many researches consider a squared multiple correlation of .3 or greater to be at least moderately strong (Sudman & Blair, 1998: 517). It remains important to remember that the multiple coefficient of determination only shows combined effects of the IV's, not the relative contribution of each IV. This means for highly intercorrelated IV's the regression coefficient tends to be unreliable.

In table 10 the ANOVA calculates an F Value of the regression model, which has an overall role for the model and each of the IV's is evaluated with a separate t test. Hence 9 degrees of freedom with an F Value of 2.93 indicates an R squared of 0.1583. Examining the parameter estimates, apart from sc1 (GSE) and sc2 (ESE marketing) other variables are not statistically significant. Hence these two variables are used for stepwise regression.

Next procedure for the model (see table 11), included entering total self efficacy score (tsc), instead of the separate individual self-efficacy composite measures, since a total score might be more robust. The result was a deflated R square of 0.1139. Furthermore tsc was statistically significant at the 0.05 level.

Table 11: Model 1 of the regression with six variables entered

Model 1: Dependent variable: entint					
Analysis of variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	9.19256	1.53209	3.06	0.0075
Error	143	71.53119	0.50022		
Corrected Total	149	80.72375			
	Root MSE	0.70726	R-Square	0.1139	
	Dependent Mean	2.52500	Adj R-Sq	0.0767	
	Coeff Var	28.01034			
Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	1.22565	0.35149	3.49	0.0006
pdi	1	0.00117	0.00134	0.87	0.3871
UAi	1	0.00104	0.00084294	1.23	0.2192
idv	1	0.00160	0.00130	1.23	0.2223
mas	1	0.00030161	0.00066089	0.46	0.6488
lto	1	0.00261	0.00273	0.96	0.3410
tsc	1	0.02750	0.00702	3.92	0.0001

As reasoned out in the research design chapter 4, the next procedure entailed using stepwise regression. In step 1, the statistically significant variable (sc2) was entered first (see table 12), and the analysis forms a model between the DV and IV that correlates to some extent with it i.e. an R square of 0.0820.

Table 12: Stepwise selection: step 1

Variable sc2 Entered: R-Square = 0.0820 and C (p) = 6.6930

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	6.61680	6.61680	13.21	0.0004
Error	148	74.10695	0.50072		
Corrected Total	149	80.72375			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	1.87292	0.18845	49.45648	98.77	<.0001
sc2	0.09524	0.02620	6.61680	13.21	0.0004

Bounds on condition number: 1, 1

In step 2 – see table 13, the stepwise routine now includes the remaining IV (sc1) to see which variable makes the largest incremental contribution to variance already in equation. Here a higher R square of 0.1323 is obtained than in step 1 with an R square of 0.0820.

Table 13: Stepwise selection: step 2

Variable sc1 Entered: R-Square = 0.1323 and C (p) = 0.3245

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	10.67832	5.33916	11.20	<.0001
Error	147	70.04543	0.47650		
Corrected Total	149	80.72375			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	1.47432	0.22899	19.75163	41.45	<.0001
sc1	0.03460	0.01185	4.06153	8.52	0.0041
sc2	0.07746	0.02627	4.14146	8.69	0.0037

Bounds on condition number: 1.0568, 4.2272

In table 14 the summary of stepwise selection is depicted. With the GSE scale (sc2) in step 1, 8.20% variance in the DV (entint) is explained, and in step 2, with subscale ESE MARKETING (sc1) entered, 13.2% in variance is explained.

Table 14: Stepwise selection: summary

Summary of Stepwise Selection								
Step	Variable Entered	Variable Removed	Number Vars In	Partial R-Square	Model R-Square	C(p)	F Value	Pr > F
1	sc2		1	0.0820	0.0820	6.6930	13.21	0.0004
2	sc1		2	0.0503	0.1323	0.3245	8.52	0.0041

Because of the relatively low R Squares obtained it was decided to enter total self efficacy composite (tsc) alone as a separate variable in the model, see table 15. However the tsc variable only explains 8.70% variance in the DV.

Table 15: Stepwise selection: tsc entered

Stepwise Selection: Step 1						
Variable tsc Entered: R-Square = 0.0870 and C (p) = 1.3380						
Analysis of Variance						
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Model	1	7.02262	7.02262	14.10	0.0002	
Error	148	73.70113	0.49798			
Corrected Total	149	80.72375				
Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F	
Intercept	1.64288	0.24186	22.97631	46.14	<.0001	
tsc	0.02439	0.00649	7.02262	14.10	0.0002	

The stepwise regression results indicate that few patterns of relationship between the variables can be established.

As the low R Squares obtained indicate the entered IV's do not seem to have an effect on entrepreneurial intentions (no cultural variables even entered the prediction model).

These findings do not meet intuitive speculations, as well as the theory and hypothesis advanced that cultural values affect entrepreneurial intentions. This is somewhat surprising given the number of studies citing the contrary effects in the literature review sections.

In conclusion based on the above results, although findings are modest in correlations and regressions, they are not trivial. This low explanatory power is reasonably good for exploratory research in a new domain such as entrepreneurship, particularly in SA where much is left unexplained with regards effects of culture on entrepreneurship.

5.6 STUDY LIMITATIONS

Based on the studies empirical results together with the literature reviews there are mixed findings and inconclusive debates regarding the effect of culture and self efficacy on entrepreneurial intentions. Nonetheless a desire to impose order on chaos via a resolution of conflicting evidence is often necessary for further advancement of a field (Rosenthal & DiMatteo, 2001).

This thesis is limited by the early stage of development in theory of the entrepreneurial self-efficacy construct and subsequent measures. Consolidating the major limitations previously addressed in the separate instrument design chapters; compromises and standard criticisms this thesis manifests are:

As discussed in chapters 3 and 4, methodological difficulty of making empirical distinctions between national culture and individual behavior was anticipated (Hayton, et al 2002). That the VSM 94 should not be used without understanding of its origins and its limitations is well documented.

Apart from the validity and reliability issues pertaining to a cultural instrument already discussed, the measures of values depend strongly on the instrument used and that it is a doubtful practice to use instruments developed in one country for use in another cultural environment. The underlying syndrome can be universal and permanent, but the measuring instruments have to be adopted to the population and to the spirit of the times (Hofstede, 2001:67). Specifically Hofstede's (2001:19) claim that the ethnocentric nature of many cross-cultural studies of organizational behavior has been one of the main reasons for the lack of advance of this science is supported in principle. However the development of a culture free instrument in the social sciences seems unlikely. This challenge is linked to the spectrum of differences in multicultural S.A. presenting unique obstacles in research, however there are signs of narrowing, and the disappearance of gaps across race groups on cognitive test results, indicates greater similarities between people of S.A. (Shuttleworth-Jordan, 1996).

Other more specific limitations and recommendations are:

- Restricted sampling frame. In terms of cultural assessment, the IBM dimensions were based on statistical trends in a population of 40 countries. A trend found in a cloud of 40 dots cannot be falsified by just 2 or 3 dots (samples) (Hofstede, 2001:463), e.g. Sondergaard (1994) indicated that 61 smaller replications taken together confirmed the dimensions, but pure chance accounted for disconfirmation of some dimensions in a minority of cases. Definitive conclusions on the culture bound nature of the self-concept construct (self-efficacy) will not be warranted based on one country study.
- Survey data were self-reported; therefore study is prone to cognitive and motivational bias, e.g., self-serving bias. Furthermore efficacy beliefs in terms of competencies can be supplemented with those of potential obstacles as previously suggested to prevent 'Hawthorne effect' (Chen et al, 1998:311).
- Social desirability. Since entrepreneurship is a charismatically charged term, and carries a lot of social weight - to reduce social desirability in reporting

high self-efficacy the survey instruction emphasized honesty for self-assessment.

- There is also much variability among entrepreneurs and ventures; therefore it is difficult to draw any generalizations about entrepreneurs. This makes the identification of appropriate samples particularly important for studies that explore whether certain behaviors or beliefs can predict entrepreneurial behavior.
- Cross - sectional nature of study will diminish any predictions.
- Statistical significance tests, effect sizes, power estimates, confidence intervals and the like are meaningful only with knowledge of substantive considerations involved in the study; these tests on their own do not constitute a claim for causality (Cavusgil & Das, 1997).

CHAPTER 6

CONCLUSIONS AND IMPLICATIONS

6.1 DISCUSSION

The objective of this chapter is to strike a balance between the evidence presented in the last chapter and the conclusions based on this. Not to neglect any evidence as well as not to go beyond it either in drawing conclusions is the guiding principle of this last chapter.

This thesis proposed that entrepreneurial intentions are influenced by individual and environmental factors, with self efficacy beliefs and cultural values predicted as generating the most salient affects.

It is the first time that a study anywhere has incorporated both the GSE and ESE measures, as well as measuring both the magnitudes and strengths of self efficacy beliefs of respondents. Furthermore it is also a first in SA that cultural values were empirically derived in an entrepreneurial context.

Although any generalizations would mar the rigor of the analysis undertaken it is tempting to categorize entrepreneurial intentions in SA as generally not affected by self efficacy and cultural values.

Since the study was undertaken to testing of hypothesis relating to the effect of the IV's on the DV, where self efficacy and cultural values were recorded as high or low on basis of obtained mean scores the null is rejected or alternative accepted. Where $p > 0.05$ the null hypothesis cannot be rejected that cultural values and self-efficacy do not increase entrepreneurial intentions.

- Hypothesis 1. The moderating effect of the cultural dimensions and self-efficacy perceptions does not increase entrepreneurial intentions.
- H1a. Higher individualism vs. collectivism and increased self-efficacy does not increase entrepreneurial intentions.
 - H1b. Lower uncertainty avoidance and increased self-efficacy does not increase entrepreneurial intentions.
 - H1c. Higher masculinity vs. femininity and increased self-efficacy does not increase entrepreneurial intentions.
 - H1d. Lower power distance and increased self-efficacy does not increase entrepreneurial intentions.
 - H1e. Higher long-term orientation vs. short-term orientation and increased self-efficacy does not increase entrepreneurial intentions.

In relation to each of the hypothesis, no support was found for the moderating effect of cultural values on entrepreneurial intentions: in examining the parameter estimates in the regression model none of the cultural dimensions were statistically significant to explain variance in entrepreneurial intentions. Although correlations of cultural dimensions with higher levels of entrepreneurial intentions was expected, results indicate it would be inaccurate to describe this sample as having entrepreneurial intentions as a result of cultural value influences. Further no interaction between cultural dimensions and self efficacy was revealed by findings.

However on the other hand self-efficacy does seem to explain some variation in entrepreneurial intentions as discussed in the stepwise regression, albeit relatively low. Partial support was found; in particular that GSE and ESE marketing had some ability to predict entrepreneurial intentions. As Bandura (1997, 2001) has noted generic self-efficacy (GSE) and domain self-efficacy, in this instance (ESE) are not entirely independent. Individual's appraisal of efficacy in a given domain is based in part on a judgment of their general self-regulatory capabilities. Thus for a topic such as entrepreneurship, that entails study of macro performance that transcends specific situations, using the GSE in combination with the ESE appears justified.

Additional findings from career self-efficacy are generally supportive of the utility of the self-efficacy construct. For example, a study by Hackett et al (1992:527) demonstrated that observed negative effects of gender and ethnicity on achievements by engineering students are fully mediated by self-efficacy. That is only self-efficacy predicted achievement.

A plausible interpretation in so far a country's culture may or may not affect entrepreneurship; is that the breadth of the concept of culture has led to overgeneralization in terms of both conceptual arguments and empirical results. Cultural values appear to be at best another contributing factor, for example Busenitz et al (2000) believe that cross-national differences in entrepreneurship are best explained by a broader set of institutions, and they develop and validate a previously used three-dimensional country institutional profile, i.e. regulatory, cognitive, and normative dimensions.

Similarly Bandura (2001) argues that global cultural classifications mask intracultural diversity, as well as much communality among people of different cultural backgrounds. Perhaps in criticizing cultural research with such broad national parameters (Hofstede's work) Bandura argues that bi-cultural contrasts,

where individuals from a single collectivist locale are compared on global indices to individuals from a single individualistic culture, can spawn a lot of misleading generalizations. The debates on this topic often ignore the significant variations within cultures which often are as important as the modal variation between cultures; efficacy beliefs function as regulative influences for collectivists in individualistic societies and individualists in collectivists societies, regardless of whether orientations are analyzed the cultural level or individual level.

This is collaborated by others who find the multiple benefits of a sense of personal efficacy operate similarly across gender, ethnicity and social class, e.g. the effects of efficacy beliefs on occupational choice and development exhibited by predominantly white college students are similar to those obtained for ethnic minorities who differ strikingly in educational development, age, socioeconomic status, and geographical mobility. Comparative studies with other ethnic minorities further attest to such generalizability of efficacy effects (Bandura, 1997).

Members of the same national culture adopt different orientations depending on social circumstances; thus people express their cultural orientations conditionally rather than invariantly. Both intracultural and situational variation in styles of behavior underscores the need to specify mechanisms through which cultural influences exert the effects (Bandura, 1997:31).

Investigating SA cultural social norms it becomes apparent that not only is a negative individual mindset often cited, but that often entrepreneurship is not necessarily seen as legitimate or desirable career choice. Additionally there is a strong culture of wage labor in SA, as well as negative attitudes to failure (Driver et al, 2001), all which may be plausible reasons for this study's findings.

What's more, perhaps a limiting effect on entrepreneurship in S.A is that first generation out of poverty always wants security, i.e. high uncertainty avoidance, (jobs in corporations) not risk (entrepreneurial ventures) (Young, 2002).

An alternative explanation and a caveat is that using the VSM 94 with its low coefficient alpha confounds the findings of culture. But to avoid Hofstede's

seminal work on culture when attempting to undertake cross-cultural quantitative research can be considered naive.

Although it was beyond the objective of thesis to make substantial cross cultural / cross ethnic comparisons between the groups; the results of ANOVA indicate low, although significant differences in entrepreneurial intentions, cultural values and self efficacy across ethnic groups.

The implicit assumption with cultural distance is that differences in cultures produce lack of 'fit' and hence an obstacle. However cultural differences may be complementary and have positive synergetic effect on investment and performance, e.g. global cooperation demands both concern for performance (masculine) and concern for relationships (feminine), the two may be mutually supportive.

With regards the study's sample, it was expected that M.B.A. students as selected subjects represent a significant share of the pool of potential entrepreneurs as demands of technology and global competition increase, the need for tertiary level trained entrepreneurs becomes necessary, with success in business being dependant on founder education and training (Mueller & Thomas, 2000:62). Perhaps though MBA students with work experience have more managerial and security career anchors (Schein, 992) which is reflected in the average scores obtained for entrepreneurial intentions.

Furthermore one of the aspirations of entrepreneurial research is to offer recommendations on criteria for segmenting entrepreneurs; Foxcroft et al (2002) maintain that effective targeting would be simplified if it were possible to categorize entrepreneurs according to their capacity to create jobs; this thesis attempted to instate such aims by focusing on a particular group of prospective entrepreneurs. In this case the focus was on formal entrepreneurs (those who are capable of creating wealth and jobs - opportunity entrepreneurs) - given the level of education of respondents.

In addition urban (metropolitan) versus rural (non- metropolitan) areas represent a common within country classification. In GEM 2001, the low rate of total entrepreneurial activity (TEA) among blacks is explained by different rates in urban and rural areas. Within metropolitan areas the differences in TEA by race are small, with one in 16 adults in metro areas being an opportunity entrepreneur. Since the sample selected for this thesis was based on urban situated respondents, and with small differences reported between the ethnic groups, this may have minimized the cultural effects on entrepreneurial intentions as predicted.

Based on such findings it becomes apparent that the entrepreneur acts at a given time and place, which depends heavily on the rules of the game, i.e. the reward structure in the economy that happens to prevail (Baumol, 1990). It seems the reallocation of entrepreneurial effort is far more easily achieved through changes in the rules that determine rewards, then via modification of the goals of entrepreneurs. The critical metaquestion remains how does one go about changing society's value systems so that it will want to change the rules? Baumol argues there is no basis on which the economist can argue society ought to change its values, but rather posits a society whose values lead it to favor productive growth. Baumol proposes that in principle there exist testable means that promise to induce entrepreneur to shift their attentions in productive directions without any major change in their ultimate goals. He advises that one does not have to wait patiently for slow cultural change in order to find measures to redirect the flow of entrepreneur activity toward more productive goals; it may be possible to change the rules that help offset the undesirable institutional influences or supplement influences that work in beneficial directions. For instance long-term orientated entrepreneurship is evidently not only based on the values of the entrepreneurs, but decisive values are held broadly within societies, among entrepreneurs and future entrepreneurs, among their employers and their families, and among other members of society (Hofstede, 2001:362).

Taking the multiplicity of variables and dimensions influencing entrepreneurial activity even further, Zafirovski (1999:354) states that the multivariate specification of entrepreneurship incorporates rational and non-rational, economic and non-economic, utilitarian and non-utilitarian, egoistic and altruistic, psychological and cultural, individual and structural variables. He reports that entrepreneurship possesses an eminently social character and is subject to the operation of definite social processes, in particular the cultural- historical and social- structural forces of a nation.

Notwithstanding the above, it is acknowledged that entrepreneurship research can and must be analyzed at multiple level of analysis, and that the analyses can complement each other (Davidsson & Wiklund, 2001).

Methodological refinements have been introduced (Oyserman et al, 2002; Triandis, 2001; Earley, 1994) to separate the cultural level from the individual level aspects of cultural dimensions. In a study by Earley (1994), their dual assessment of individualism – collectivism (I-C) indicated that parallel constructs were tapped, with the individual level assessment having the strongest relation to self-efficacy and performance. The general logic of this approach is that I-C (partitioned into collectivism individual and collectivism group components), rather than country of origin drives the hypothesized interaction.

Multilevel analysis (analyzing same data at different levels) can provide crucial insights of how social systems operate, and are essential for real advances.

6.2 RELEVANCE OF FINDINGS

In general studying the impact of culture on entrepreneurship in a multicultural society under a political correct climate may be construed as officious and arrogant. And although there exists the sophistic political correct argument that all must be celebrated and no judgments or analysis is permitted, the point is to rescue cultural relativism from speculations and impressions and to establish it on more solid empirical ground as this thesis has done.

With the scholarship on entrepreneurship evolving under continued scrutiny, this thesis has made a modest contribution to field of entrepreneurial theory and suggests a need for further scale development specific to SA multiculturalism. Although the findings do not suggest many possibilities of resolving some theoretical difficulties surrounding this multifarious subject matter; thesis has opened several questions regarding potential contradictions about cultural values and effect of self efficacy on entrepreneurial intentions. Due to much variability that findings from literature review sections as well as empirical results indicate, intervention decisions based on them may be precarious

Apart from using the cultural dimensions to understand ones own cultural tendencies findings have relevance for government and policy makers seeking competitive advantage for SA and encouraging entrepreneurial mindset among South Africans. Entrepreneurs, educators, and consultants all benefit from better understanding of how intentions are formed and how founders self efficacy beliefs merge into the intent to start a business. Understanding self efficacy as one of the antecedents of intentions increases understanding of intended behavior. Inculcating self-efficacy among potential entrepreneurs requires more than teaching competencies, prospective entrepreneurs must internalize the competencies by experiencing mastery of skills. Not only can educators and policy makers help increase perceptions of feasibility for prospective entrepreneurs but also for community by increasing collective self efficacy by emphasizing successful entrepreneurial role models.

Social interventions designed to encourage entrepreneurship need to take into account the culture values of the target population, since motivational differences across cultures can be salient.

6.3 FURTHER RESEARCH

At this juncture a call for further research is apparent. Whether SA can indulge in the luxury of waiting for research to develop to address urgent challenges facing it is a question worth considering.

To account for more variance other contextual factors apart from culture such as the SA supportive and cooperative environments could help explain entrepreneurial intentions. Additional adoption of perspectives such as the cultural social capital concept (i.e. relations and networks from which individual is able to derive support) could enhance this type of research (Cooper & Denner, 1998:574).

For future research it may be necessary to control for other non-cultural variables that may influence the dependant variable, especially in light of such research as done by Davidsson & Wiklund (1997:183), who found that cultural and economic – structural determinants of new firm formation rates were positively correlated, so that unique contribution of each type of explanation could not be determined.

In terms of the next phase of research design, a pretest – posttest control group design with self efficacy as the intervention would greatly enhance this type of research.

A revealing study would employ meta analysis, which reveals much more than a narrative study, and by synthesizing the complete findings of primary studies, hypotheses can be tested that were not testable in those studies. Moreover structural equation modeling, using path analysis to describe an entire set of linkages explaining the causal links between the variables, after meta analysis has summarized the relationships of interest, is recommended.

BIBLIOGRAPHY

- Adler, N.J., Bartholomew, S. 1992. Academic and Professional Communities of Discourse. *Journal of International Business Studies*, 23(3).
- Ahwireng- Obeng, F., Piaray, D. 1999. Institutional Obstacles to South African Entrepreneurship. *South African Journal of Business Management*, 30 (3).
- Aiken, L.S., West, G.S. 1991. *Multiple Regression: Testing and Interpreting Interactions*. Sage Publications. California.
- Ajzen, I. 1991. Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50:179-211.
- Anastasia, A., Urbani, S. 1997. *Psychological Testing*. 7th Ed. New Jersey. Prentice Hall.
- Aycan, Z., Kanungo, R.N., Mendonca, M., Yu, K., Deller, J., Stahl, G., Kurshid, A. 2000. Impact of Culture on Human Resource Management Practices: A 10-County Comparison. *Applied Psychology*, 49 (1).
- Bandura, A. 2001. Social Cognitive Theory: An Agentic Perspective. *Annual Review of Psychology*, Annual: 1-36.
- Bandura, A. 1997. *Self-efficacy. The exercise of control*. W.H. Freeman & Company. New York.
- Bandura, A. 1986. *Social Foundations of Thought & Action. A Social Cognitive Theory*. Englewood Cliffs, N.J. Prentice-Hall.
- Bandura, A. 1982. Self-Efficacy Mechanism in Human Agency. *American Psychologist*, 37.
- Baumol, W.J. 1990. Entrepreneurship: Productive, Unproductive and Destructive. *Journal of Political Economy*, 98 (5): 893-921.
- Begley, T.M., Tan, W., L. 2001. The Socio- Cultural Environment for Entrepreneurship: A Comparison between East Asian and Anglo-Saxon Countries. *Journal of International Business Studies*, 32(3).
- Berry J.W., Poortinga, Y. H., Segall, M. H., Dasen, P. R. 1992. *Cross Cultural Psychology - Research of Applications*. Cambridge University Press. USA.

Bhagat, R.S., Rabi, S., Kedia, B.L., Harveston, P.D., Triandis, H.C. 2002. Cultural Variations in the Cross Border Transfer of Organizational Knowledge: An Integrative Framework, *Academy Of Management Review*, 27(2).

Bird, B.J. 1989. *Entrepreneur Behavior*. Case Western Reserve University. Scott, Foresman & Co. Illinois.

Bobko, P. 2001. *Correlation and Regression. Application for Industrial Psychology and Management*. 2nd Ed. Sage Publications. London.

Bond, M.H., Smith.P.B.1996. Cross-Cultural Social and Organizational Psychology. *Annual Review of Psychology*, 47:205-235.

Boyd, R.L. 1990. Black and Asian Self-Employment in Large Metropolitan Areas: A Comparative Analysis. *Social Problems*, 37(2).

Boyd, N.G., Vozikis, G.S. 1994. The Influence of Self-Efficacy on the Development of Entrepreneurial Intentions & Actions. *Entrepreneurship Theory & Practice*, 18(4): 63-78.

Brandstatter, H. 1997. Becoming an Entrepreneur – A Question of Personality Structure? *Journal of Economic Psychology*, 18:157-177.

Bryant, F.B., Yarnold, P.R. 1995. Principal Components Analysis and Exploratory and Confirmatory Analysis. In L.G.Grimm and P.R. Yarnold, Ed. *Reading and Understanding Multivariate Statistics*. American Psychological Association, Washington DC, USA.

Busenitz, L.W., Gomez, C., Spencer, J.W. 2000. Country Institutional Profiles: Unlocking Entrepreneurial Phenomena. *Academy Of Management Journal*, 43 (5).

Busenitz, L.W., Lau, C.M. 1996. A Cross Cultural Cognitive Model of New Venture Creation, *Entrepreneurship Theory and Practice*, 20 (4): 25-39.

Bygrave, W.D. 1989. The Entrepreneurship Paradigm (I). A Philosophical Look at its Research Methodologies. *Entrepreneurship Theory & Practice*, 14 Fall: 7-26.

Bygrave, W.D. 1989. The Entrepreneurship Paradigm (II). Chaos and Catastrophes among Quantum Jumps. *Entrepreneurship Theory & Practice*, 14 Winter: 7-26.

Bygrave, W. D., Minniti, M. 2000. The Social Dynamics of Entrepreneurship. *Entrepreneurship Theory and Practice*, 24 (3).

- Carpenter, S. 2000. Effects of Cultural Tightness and Collectivism on Self Concept and Causal Attributions. *Cross Cultural Research*, 34(1).
- Cavusgil, S.T., Das, A. 1997. Methodological Issues in Empirical Cross Cultural Research: A Survey of the Management Literature and a Framework. *Management International Review*, 37 (1).
- Chandler, G.N., Jansen, E. 1992. The Founders Self Assessed Competence and Venture Performance. *Journal of Business Venturing*, 7:223-236.
- Chandler, G.N., Lyon, D.W. 2001. Issues of Research Design & Construct Measurement in Entrepreneurship Research. *Entrepreneurship Theory & Practice*, 25(4): 101-114.
- Chen, C.C., Greene, P.G., Crick, A. 1998. Does Entrepreneurial Self-Efficacy Distinguish Entrepreneurs From Managers? *Journal of Business Venturing*, 13: 295-316.
- Chen, G, Gully, M.S., Eden, D. 2001. Validation of a New General Self Efficacy Scale. *Organizational Research Methods* 4(1): 62-83.
- Choi, N., Fuqua, D.R., Griffin, B.W. 2001. Exploratory Analysis of the Structure of Scores from the Multidimensional Scales of Perceived Self-Efficacy. *Educational and Psychological Measurement*, 61(3):475-489.
- Chrisman, J.J., Chua, J.H., Steier, P.L. 2002. The Influence of National Culture and Family Involvement on Entrepreneurial Perceptions and Performance at the State Level. *Entrepreneurship Theory And Practice*, Summer: 113-130.
- Church, T.A. 2001. Personality Measurement In Cross – Cultural Perspective. *Journal Of Personality*, 69:6.
- Church, T.A. 2000. Culture And Personality: Toward An Integrated Cultural Trait Psychology. *Journal Of Personality*, 68(4): 651-703.
- Church, T.A., Lonner, W.J. 1998. The Cross-Cultural Perspective in the Study of Personality. *Journal Of Cross Cultural Psychology*, 29(1): 32-62.
- Cliff J.E. 1998. Does One Size Fit All? Exploring the Relationship between Attitudes towards Growth, Gender, and Business Size. *Journal of Business Venturing*, 13:523-542.
- Cohen, L., Holliday, M. 1998. *Practical Statistics for Students*. Paul Chapman Publishing, London.

- Conger, J.A., Kanungo, R, N. 1988. The Empowerment Process: Integrating Theory and Practice. *Academy Of Management Review*, 13 (3).
- Cooper, R.C., Denner, J. 1998. Theories Linking Culture and Psychology: Universal and Community Specific Processes. *Annual Review of Psychology*, 49:559-84.
- Cooper, R.D., Emory, C.W.1995. *Business Research Methods .5th Ed.* Chicago: Irwin Inc.
- Corder, C.K. 2001. The Identification of a Multi Ethnic South African Typology. D. Phil Thesis. University Of Pretoria, Pretoria.
- Cortina, J.M. 1993. What Is Coefficient Alpha? An Examination of Theory and Applications, 78 (1): 98-104.
- Crant, J.M. 1996. The Proactive Personality Scale as a Predictor of Entrepreneurial Intentions. *Journal of Small Business Management*, 34:42-49.
- Davidsson, P., Wiklund, J. 2001. Levels of Analysis in Entrepreneurship Research: Current Research Practice and Suggestions for the Future. *Entrepreneurship Theory and Practice*, 25(4).
- Davidsson, P., Wiklund, J. 1997. Values, Beliefs and Regional Variations in New Firm Formation Rates. *Journal of Economic Psychology*, 18:179-199.
- De Vries, M.K. 1996. The Anatomy of the Entrepreneur: Clinical Observations. *Human Relations*, 49 (7).
- Douglas, E.J., Shepherd, D.A.2002. Self-Employment as a Career Choicer: Attitudes, Entrepreneurial Intentions and Utility Maximization. *Entrepreneurship Theory And Practice*, Spring: 81-90.
- Drew, N., Kristy, P. 2000. Self-Efficacy and Job Seeking Activities in Unemployed Ethnic Youth. *Journal of Social Psychology*, 140(5).
- Driver, A., Wood, E., Segal, N., Herrington, M. 2001. *Global Entrepreneurship Monitor South African Executive Report*. University Of Cape Town.
- Earley, P.C. 1994. Self or Group? Cultural Effects of Training on Self-Efficacy and Performance. *Administrative Science Quarterly*, 39(1).
- Earley, P.C., Gibson, C.B. 1998. Taking Stock in Our Progress on Individualism-Collectivism: 100 Years of Solidarity and Community. *Journal of Management*, 24(3).

- Eaton, L., Louw, J. 2000. Culture and Self in South Africa: Individualism – Collectivism Predictions. *Journal of Social Psychology*, 140(2).
- Erez, M., Early, P.C. 1993. *Culture, Self Identity, and Work*. Oxford University Press, Oxford.
- Erikson, T. 2002. Entrepreneurial Capital: The Emerging Ventures Most Important Asset And Competitive Advantage. *Journal of Business Venturing*, 1: 275-290.
- Ford, C.M. 1996. A Theory of Individual Creative Action in Multiple Social Domains. *Academy Of Management Review*, 21 (4).
- Foxcroft, M., Roodt, G. 2002. Eds. *An Introduction to Psychological Assessment in SA Context*. Oxford University Press, Cape Town.
- Foxcroft, M., Wood, E., Kew, J., Herrington, M., Segal, N. 2002. *South African Global Entrepreneurship Monitor Executive Report*. University of Cape Town.
- Franzblau, S.H., Moore, M. 2001. Socializing Efficacy: A Reconstruction of Self-Efficacy Theory within the Context of Inequality. *Journal of Community and Applied Social Psychology*, 11 (2).
- Gartner, W.B. 2001. Is There An Elephant In Entrepreneurship? Blind Assumptions in Theory Development. *Entrepreneurship Theory & Practice*, 25(4): 27-40.
- Gartner, W.B. 1989. Some Suggestions for Research on Entrepreneurial Traits & Characteristics. *Entrepreneurship Theory & Practice* Fall: 27-37.
- Gartner, W.B., Bird, B.J., Starr, J.A. 1992. Acting As If: Differentiating Entrepreneurial from Organizational Behavior. *Entrepreneurship Theory & Practice*, Spring: 13-31.
- Gartner, W.B., Shane, S.A. 1995. Measuring Entrepreneurship over Time. *Journal of Business Venturing*, 10:283-301.
- Gatewood, E.J., Shaver, K.G., Powers, J.B., Gartner, W.B. 2002. Entrepreneurial Expectancy, Task Effort, and Performance. *Entrepreneurship Theory And Practice*, Winter: 187-206.
- Gist, M.E., Mitchell, T.R. 1992. Self-Efficacy: A Theoretical Analysis of Its Determinants & Malleability. *Academy Of Management Review*, 17(2): 183-212.

Hackett, G., Betz, N., Casas, J., Rocha-Sinjh, I. 1992. Gender, Ethnicity & Social Cognitive Factors Predicting Achievement. *Journal of Counseling Psychology*, 39:527-538.

Hayton. C., George, G., Zahra, S.A. 2002. National Culture and Entrepreneurship: A Review of Behavioral Research. *Entrepreneurship Theory And Practice*, Summer: 33-52.

Hofstede, G. 2001. *Cultures Consequences*. 2nd Ed. Sage Publications. California.

Hofstede, G.1998. A Case for Comparing Apples with Oranges: International Differences in Values. *International Journal of Comparative Sociology*, 39(1).

Hofstede, G. 1993. Cultural Constraints in Management Theories. *Academy Of Management Executive*, Feb: 81-93.

Hofstede, G.1991. *Cultures and Organizations. Software of the Mind*. McGraw-Hill, London.

Hofstede, G. 1980. *Cultures Consequences*. Sage Publications. California.

Hofstede, G., Bond, M.H. 1988. The Confucius Connection: From Cultural Roots to Economic Growth. *Organizational Dynamics*, 16(4).

Hoppe, M.H. 1990. *A Comparative Study of Country Elites*, PhD Thesis, University Of North Carolina.

Jaeger, A.M., Kanungo, R.N. 1990. *Management in Developing Countries*. Routledge. London.

Johnson, J.P., Lenartowicz. 1998. Culture, Freedom And Economic Growth: Do Cultural Values Explain Economic Growth. *Journal of World Business*, 33 (4).

Katz, J.A. 1990. Longitudinal Analysis Of Self-Employment Follow Through. *Entrepreneurship & Regional Development*, 2(1): 15-25.

Kim, M., Hunter, J. 1993. Relationships among Attitudes, Intentions and Behavior. *Communications Research*, 20: 331-64.

Kinunda- Rutashobya, L. 1999. African Entrepreneurship and Small Business Development: A Conceptual Framework. Eds Kinunda- Rutashobya, L., Olomi, D.R. *African Entrepreneurship and Small Business Development*. University Of Dar –Es-Salaam.

- Kolvereid, L. 1996. Prediction of Employment Status Choice Intentions. *Entrepreneurship Theory and Practice*, 21(1): 47-57.
- Kolvereid, L. Moen, O. 1997. Entrepreneurship Among Business Graduates: Does A Major In Entrepreneurship Make A Difference? *Journal of European Industrial Training*, 21 (4): 154-162.
- Korunka, C., Hermann, F., Lueger, M., Mugler, J. 2003. The Entrepreneurial Personality in the Context of Resources, Environment, and the Startup Process- A Configurational Approach. *Entrepreneurship Theory And Practice* Fall.
- Kreiser, P.M., Marino, L.D., Weaver, M.K. 2002. Assessing the Psychometric Properties of the Entrepreneurial Orientation Scale: A Multi Country Analysis. *Entrepreneurship Theory And Practice*, Summer: 71-94.
- Krueger, N.F. 2000. The Cognitive Infrastructure of Opportunity Emergence. *Entrepreneurship Theory & Practice*, 24(3): 5-23.
- Krueger, N.F. 1993. The Impact of Prior Entrepreneurial Exposure on Perceptions of New Venture Feasibility and Desirability. *Entrepreneurship Theory & Practice*, 18(1): 5-23.
- Krueger, N.F., Brazael, D.V., 1994. Entrepreneurial Potential & Potential Entrepreneurs. *Entrepreneurship Theory & Practice*, 18(3): 91-105.
- Krueger, N.F., Dickson, P.R. 1994. How Believing In Ourselves Increases Risk Taking: Self-Efficacy & Perceptions of Opportunity & Threats. *Decision Sciences*, 25.
- Krueger, N.F., Reilly, M.D., Carsrud, A.L. 2000. Competing Models of Entrepreneurial Intentions. *Journal of Business Venturing*, 15, 411-432.
- Lau, C.M., Busenitz, L.W. 2001. Growth Intentions of Entrepreneurs in a Transitional Economy: The Peoples Republic of China. *Entrepreneurship Theory and Practice*, 26 (1).
- Lawler, III, E., E. 1973. *Motivation in Work Organizations*. Belmont, California, Brookes – Cole.
- Lee, C., Bobko, P. 1994. Self-Efficacy Beliefs: Comparison of Five Measures. *Journal of Applied Psychology*, 79(3): 364-369.
- Lee, C., Green, R.T. 1990. Cross-Cultural Examination of the Fishbein Behavioral Intentions Model. *Journal of International Business Studies*, September.

Lee, S.M., Peterson, S.J. 2000. Culture, Entrepreneurial Orientation, and Global Competitiveness. *Journal of World Business*, 35(4).

Leedy, P.D. 1993. *Practical Research: Planning and Design*, 5th Ed. New York: Macmillan Publishing Company.

Lenartowicz, T., Roth, K. 2001. Does Subculture Within A Country Matter? A Cross Cultural Study of Motivational Domains and Business Performance in Brazil. *Journal of International Business Studies*, 32 (2).

Lenartowicz, T., Roth, K. 1999. A Framework for Culture Assessment. *Journal of International Business Studies*, 30 (4).

Levitt, T. 1983. The Globalization of Markets. *Harvard Business Review*, May-June.

Low, M. 2001. The Adolescence of Entrepreneurship Research. Specification of Purpose. *Entrepreneurship Theory & Practice*, 25(4): 17-26.

Low, M., Macmillan, I. 1988. Entrepreneurship: Past Research and Future Challenges. *Journal of Management*, 14(2): 139-162.

Lumpkin, G.T., Dess, G.G. 1996. Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance. *Academy Of Management Review*, 21(1).

Luthans, F., Stajkovic, A.D., Ibrayeva, E. 2000. Environmental and Psychological Challenges Facing Entrepreneurial Development in Transitional Economies. *Journal of World Business*, 35 (1).

Marino, L., Strandholm, K.H., Steensma, H.K., Weaver, M.K. 2002. The Moderating Effect of National Culture on the Relationship between Entrepreneurial Orientation and Strategic Alliance Portfolio Extensiveness. *Entrepreneurship Theory And Practice*, Summer: 145-160.

Markman, G.D., Balkin, D.B., Baron, R.A. 2002. Inventors and New Venture Formation: The Effects of General Self Efficacy and Regretful Thinking. *Entrepreneurship Theory And Practice*, Winter: 149-165.

Markoczy, L. 2000. National Culture and Strategic Change in Belief Formation, *Journal of International Business Studies*, 31 (3).

Markus, H.R., Kitayama, S. 1998. The Cultural Psychology of Personality. *Journal Of Cross Cultural Psychology*, 29:63-87.

Maurer, T.J., Andrews, K.D. 2000. Traditional, Likert, and Simplified Measures of Self-Efficacy. *Educational and Psychological Measurement*, 60 (6): 965-973.

McClelland, D.C. 1961. *The Achieving Society*. New York: Free Press.

McFarlin, D.B., Coster, E.A. Mogale, C. 1999. South African Management Development in the Twenty First Century. *Journal of Management Development*, 18 (1): 63-78.

McGrath, R.G., Macmillan, I.C. 1992. More like Each Other than Anyone Else? A Cross-Cultural Study of Entrepreneurial Perceptions. *Journal of Business Venturing*, 7:419-429.

McGrath, R.G., Macmillan, I.C., Ai-Yuan Yang, E., Tsai, W. 1992. Does Culture Endure, Or Is It Malleable? Issues for Entrepreneurial Economic Development. *Journal of Business Venturing*, 7:441-458.

McGrath, R.G., Macmillan, I.C. Scheinberg, S. 1992. Elitists, Risk Takers, and Rugged Individualists? An Exploratory Analysis of Cultural Differences between Entrepreneurs and Non Entrepreneurs. *Journal of Business Venturing*, 7:115-135.

McGregor, D. 1960. *The Human Side of Entrepreneurship*. New York. McGraw Hill.

Minniti, M., Bygrave, W. 1999. The Microfoundations of Entrepreneurship. *Entrepreneurship Theory and Practice*, 23 (4).

Mitchell, R.K., Busenitz, L., Lant, T., Mc Dougall, P.P., Morse, E.A., Smith, J.B. 2002. Toward A Theory of Entrepreneurial Cognition: Rethinking the People Side of Entrepreneurship Research. *Entrepreneurship Theory And Practice*, Winter: 93-104.

Mitchell, R.K., Smith, J.B., Morse, E.A., Seawright, W.K., Peredo, A.M., McKenzie, B. 2002. Are Entrepreneurial Cognitions Universal? Assessing Entrepreneurial Cognitions across Cultures. *Entrepreneurship Theory And Practice*, Summer: 9-32.

Mitchell, R.K., Smith, J.B., Seawright, W.K., Morse, E.A. 2000. Cross Cultural Cognitions and the Venture Creation Decision. *Academy Of Management Journal*, 43(5).

Morris, M.H., Davis, D.L., Allen, J.W. 1994. Fostering Corporate Entrepreneurship: Cross-Cultural Comparisons of the Importance of Individualism versus Collectivism. *Journal of International Business Studies*, 25 (1).

Mouton, J. 2002. Understanding Social Research. 3rd Impression, Van Schaik Publishers, Pretoria.

Mpofu, E.1994. Exploring the Self-Concept in an African Culture. The Journal of Genetic Psychology, 155 (3): 341-354.

Mueller, S.L., Thomas, A.S. 2000. Culture and Entrepreneurial Potential: A Nine-Country Study of Locus of Control and Innovativeness. Journal of Business Venturing, 16:51-75.

Mwamwenda, T.S.1995. Educational Psychology. An African Perspective. 2nd Edition. Durban. Butterworths.

Naffziger, D.W., Hornsby, S.J., Kuratko, D.F. 1994. A Proposed Research Model of Entrepreneurial Motivation, Entrepreneurship Theory and Practice, Spring: 29-42.

Newman, K.L., Nollen, S.D. 1996. Culture and Congruence: The Fit between Management Practices and National Culture. Journal of International Business Studies, 27(4).

Nsamenang, B.A. 1999. An Image of Self in African Social Thought. An African Perspective. 2nd Ed. Durban. Butterworths.

Nunnally, J.C.1978. Psychometric Theory, 2nd Ed, New York: McGraw-Hill.

Oyserman, D., Coon, H.M., Kemmelmeier, M. 2002. Rethinking Individualism and Collectivism. Evaluation of Theoretical Assumptions and Meta Analysis. Psychological Bulletin, 128 (1).

Parkes, L.P., Bochner, S., Schneider, S.K. 2001. Person Organization Fit Across Cultures: An Empirical Investigation Of Individualism And Collectivism. Applied Psychology, 50 (1).

Parkes, L.P., Schneider, S.K., Bochner, S. 1999. Individualism- Collectivism and Self – Concept: Social or Contextual? Asian Journal of Social Psychology, 2: 367-383.

Paunonen, S.V., Ashton, M.C. 1998. The Structured Assessment of Personality across Cultures. Journal Of Cross Cultural Psychology, 29:150-170.

Pretorius, M., Van Vuuren, J. 2002. The Contribution of Support and Incentive Programs to Entrepreneurial Orientation and Start up Culture in South Africa. Presented At South African Entrepreneurship and Small Business Association Conference at Sun City, 4-6 Aug.

Rabow, J., Berkman, S.L., Kessler, R. 1983. The Culture of Poverty & Learned Helplessness: A Social Psychological Perspective. *Sociological Inquiry*, 53.

Rauch, A., Frese, M. 2000. Psychological Approaches to Entrepreneurial Success: A General Model and an Overview of Findings. *International Review of Industrial and Organizational Psychology*, 15:101-135.

Reynolds, P.D., Bygrave, W.D., Autio, E., Cox, L.W., Hay, M. 2002. Global Entrepreneurship Monitor Executive Report. Babson College.

Rijamampianina, R., Maxwell, T. 2002. Towards A More Scientific Way of Studying Multicultural Management. *South African Journal of Business Management*, 33(3).

Robbins, S.P. 1985. Validity Estimates For The Career Decision Making Self-Efficacy Scale. *Measurement & Evaluation in Counseling & Development*, 18: 64-71.

Rokeach, M.1973. *The Nature of Human Values*. New York. Free Press, Macmillan.

Rosenberg, M. 1965. *Society and Adolescent Self Image*. Princeton, NJ, Princeton University Press.

Rosenthal, R., DiMatteo, M.R. 2001. Meta Analysis: Recent Developments in Quantitative Methods for Literature Reviews. *Annual Review Psychology*, 52:59-82.

Sarasvathy, S.D. 2001. Causation and Effectuation: Toward A Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency. *The Academy Of Management Review*, 26 (2): 243-263.

Schein, E. H. 1992. *Organizational Culture and Leadership*, 2nd Ed. San Francisco: Jossey-Bass.

Scherer, F.R., Adams, J.S., Carley, S.S., Wiebe, F.A. 1989. Role Model Performance Effects on Development of Entrepreneurial Career Preference. *Entrepreneurship Theory & Practice*, Spring: 53-71.

Schwartz, S.H.1992. Universals in the Content and Structure of Values. Theoretical Advances and Empirical Tests in 20 Countries. *Advances in Experimental Social Psychology*, 25:1-65.

Seligman, E.P.1991. *Learned Optimism*. New York. Knopf.

- Shane, S. 1994. Cultural Values and the Championing Process. *Entrepreneurship Theory and Practice*, 18 (4).
- Shane, S., Kolvereid, L., Westhead, P. 1991. An Exploratory Examination of the Reasons Leading To New Firm Formation across Country and Gender. *Journal of Business Venturing*, 6:431-446.
- Shane, S., Locke, E.A., Collins, C.J. 2003. Entrepreneurial Motivation. *Human Resource Management Review*, 13:257-279.
- Shane, S., Venkataraman, S. 2001. Entrepreneurship as a Field Of Research: A Response to Zahra & Dess, Singh, & Erikson. *Academy Of Management Review*, 26 (1): 13-18.
- Shapiro, A. 1982. Social Dimensions of Entrepreneurship. In C. Kent, D. Sexton and K Vesper, Eds., the *Encyclopedia of Entrepreneurship*. Englewood Cliffs: Prentice Hall: 72-90.
- Shenkar, O. 2001. Cultural Distance Revisited: Towards A More Rigorous Conceptualization and Measurement of Cultural Differences. *Journal of International Business Studies*, 32, (3).
- Sherer, M., Maddux, J.E., Mercandante, B., Prentice –Dunn, S., Jacobs, B., Rogers, R.W. 1982. The Self-Efficacy Scale: Construction and Validation. *Psychological Reports*, 51.
- Schumpeter, J.A. 1947. *Capitalism, Socialism and Democracy*, 2nd Ed, New York, Harper and Row.
- Shuttleworth-Jordan, A.B. 1996. On Not Reinventing the Wheel: A Clinical Perspective on Culturally Relevant Test Usage. *South African Journal of Psychology*, 26 (2): 96-102.
- Simon, M., Houghton, S.M., Aquino, K. 1999. Cognitive Biases, Risk Perception, And Venture Formation: How Individuals Decide To Start Companies. *Journal of Business Venturing*, 15: 113-134.
- Singelis, T.M., Triandis, H.C. 1995. Horizontal and Vertical Dimensions of Individualism and Collectivism: A Theoretical and Measurement Refinement. *Cross – Cultural Research*, 29 (3).
- Sivakumar, K., Nakata, C. 2001. The Stampede towards Hofstede's Framework: Avoiding the Sample Design Pit in Cross- Cultural Research. *Journal of International Business Studies*, 32 (3).

Sondergaard, M. 1994. Hofstede's Consequences: A Study of Reviews, Citations and Replications. *Organizational Studies*, 15(3).

Spector, P.E., Cooper, C. L., Sparks, K. 2001. An International Study of the Psychometric Properties of the Hofstede Values Survey Module 1994: A Comparison of Individual and Country / Province Level Results. *Applied Psychology: An International Review*, 50(2): 269-281.

Stajkovic, A.D., Luthans, F. 1998. Self-Efficacy and Work Related Performance: A Meta – Analysis. *Psychological Bulletin*, 124(2): 240-261.

Steel, P.D., Kammeyer-Mueller, J.D. 2002. Comparing Meta Analytical Moderator Estimation Techniques under Realistic Conditions. *Journal of Applied Psychology*, 87 (1): 96-111.

Steensma, K. H., Marino, L., Weaver, M.K. 2000. Attitudes toward Cooperative Strategies: A Cross Cultural Analysis of Entrepreneurs. *Journal of International Business Studies*, 31(4).

Stevens, C.K., Gist, M.E. 1997. Effects Of Self-Efficacy And Goal Oriented Training On Negotiation Skill Maintenance: What Are The Mechanisms? *Personnel Psychology*, Winter, 50(4): 955-979.

Stewart Jr, W.H., Watson, W.E., Carland, J.C., Carland, J.W. 1998. A Proclivity for Entrepreneurship: A Comparison of Entrepreneurs, Small Business Owners, and Corporate Managers. *Journal of Business Venturing*, 14: 189-214.

Stone –Romero, E.F., Anderson, L.E. 1994. Relative Power Of Moderated Multiple Regression and The Comparison of Subgroup Correlation Coefficients for Detecting Moderating Effects. *Journal of Applied Psychology*, 79(3): 354-359.

Su –Chan, C., Ong, M. 2002. Goal Assignment and Performance: Assessing the Mediating Roles of Goal Commitment and Self-Efficacy and the Moderating Role of Power Distance. *Organizational Behavior and Human Decision Processes*, 89.

Sudman, S., Blair, E. 1998. *Marketing Research: A Problem Solving Approach*. McGraw-Hill. Boston.

Takyi – Asiedu, S. 1993. Some Socio- Cultural Factors Retarding Entrepreneurial Activity in Sub Saharan Africa. *Journal of Business Venturing*, 8:91-98.

Tan, J. 2002. Culture, Nation, and Entrepreneurial Strategic Orientations: Implications for an Emerging Economy. *Entrepreneurship Theory And Practice*, Summer.

Themba, G., Chamme, M., Phambuka, C.A., Makgosa, R. 1999. Impact of Macro- Environmental Factors on Entrepreneurship Development in Developing Countries. Eds: Kinunda- Rutashobya, L., Olomi, D.R .African Entrepreneurship and Small Business Development. University Of Dar –Es-Salaam.

Thomas, A., Bendixen, M. 2000. The Management Implications of Ethnicity on South Africa. *Journal of International Business Studies*, 31 (3).

Thomas, A.S., Mueller, S.L. 2000. A Case for Comparative Entrepreneurship: Assessing the Relevance of Culture. *Journal of International Business Studies*, 31 (2).

Thornton, P.H. 1999. The Sociology of Entrepreneurship. *Annual Review of Sociology*, 25:19-46.

Tiessen, J.H. 1997. Individualism, Collectivism, and Entrepreneurship: A Framework for International Comparative Research. *Journal of Business Venturing*, 12:367-384.

Tierney, P., Farmer, S.M. 2002. Creative Self-Efficacy: Its Potential Antecedents and Relationship to Creative Performance. *Academy of Management Journal*, 45(6).

Triandis, H.C. 2001. Individualism – Collectivism And Personality. *Journal Of Personality*, 69:6.

Triandis, H.C. 2000. Cross-Cultural I/O Psychology at the End of the Millennium. *Applied Psychology*, 49 (1): 222-227.

Triandis, H. C. 1995. Individualism – Collectivism. Boulder, Co: West View Press.

Triandis, H. C. 1994. Culture and Social Behavior. McGraw-Hill Inc: USA.

Triandis, H.C. Chen, X.P., Chan, D. K. 1998. Scenarios for the Measurement of Collectivism and Individualism. *Journal of Cross-Cultural Psychology*, 29(2).

Triandis, H.C., Su, M.E. 2002. Cultural Influences on Personality. *Annual Review of Psychology*, 53: 133-160.

Trompenaar, F. 1993. Riding the Waves of Culture: Understanding Culture and Diversity in Business. London. Economist Books.

Ucbasaran, D., Westhead, P., Wright, M. 2001. The Focus Of Entrepreneurial Research: Contextual and Process Issues. *Entrepreneurship Theory and Practice*, 25(4).

- Ulrich, D. 1998. Intellectual Capital = Competences X Commitment. Sloan Management Review, 39(4): 15-27.
- Valsiner, J. 2001. The First Six Years: Cultures Adventures in Psychology. Culture and Psychology, 7(1): 5-48.
- Vancouver, J.B., Thompson, C.M., Tischner, E.C., Putka, D.J.2002. Two Studies Examining the Negative Effect of Self-Efficacy on Performance. Journal of Applied Psychology, 87(3): 506-516.
- Van De Vijver, F.J.R., Leung, K. 2001. Personality in Cultural Context: Methodological Issues. Journal of Personality, 69:6.
- Van Vuuren, J., Nieman, G. 1999. Entrepreneurship Education and Training; A Model for Syllabi Design. In: Raffa, Proceedings of the 44th Annual Conference of the International Council for Small Business, Naples Italy. June 20-22.
- Vecchio, R.P. 2003. Entrepreneurship and Leadership: Common Trends and Common Threads. Human Resource Management Review, 13:303-327.
- Venkataraman, S. 1997. The Distinctive Domain of Entrepreneurial Research. Advances in Entrepreneurship, Firm Emergence and Growth, 3: 119-138.
- Wagner III, J.A. 1995. Studies of Individualism –Collectivism. Effects on Cooperation in Groups. Academy of Management Journal, 38(1).
- Watkins, D., Akande, A., Fleming, J., Ismail, M., Lefner, K., Regmi, M., Watson, S., Yu, J., Adair, J., Cheng, C., Gerong, A., Mcinerney, D., Mpofu, E., Sengupta, S.S., Wondimu, H. 1998. Cultural Dimensions, Gender, and the Nature of Self – Concept: A Fourteen-Country Study. International Journal of Psychology, 33(1).
- Weber, M. 1948. Essays in Sociology. Translated And Edited By Gerth, H.H., & Wright Mills, C. London. Routledge.
- Wheeler, K.G. 1983. Comparisons of Self-Efficacy & Expectancy Models of Occupational Preferences for College Male and Females. Journal of Occupational Psychology, 56: 73-78.
- Whetten, D.A., Cameron, K.S., Woods, M. 1994. Developing Management Skills for Europe. Addison Wesley Longman Inc. New York.
- Wilkinson, L., & Task Force On Statistical Inference. 1999. Statistical Methods in Psychology Journals. American Psychologist, 54(8): 594-603.
- Young. A. 2002. Lecture in Sanlam Auditorium, University Of Pretoria, 05 September.

Yu, F., T. 2000. Hong Kong's Entrepreneurship: Behaviors and Determinants. *Entrepreneurship and Regional Development*, 12:179-194.

Zafirovski, M. 1999. Probing Into the Social Layer of Entrepreneurship: Outlines of the Sociology of Enterprise. *Entrepreneurship and Regional Development*, 11:351-371.

Addendum

Questionnaire

Instructions to respondents:

- ***It is important that you are honest in your self-assessment.***
- ***Your answers to these questions remain completely confidential.***

Entrepreneurial intentions.

Answer the following questions on the scale provided below each question
 (Please circle one answer in each line based on 1 –5 below):

- | | |
|----------|------------------|
| 1 | very high |
| 2 | high |
| 3 | moderate |
| 4 | low |
| 5 | very low |
-

1. What is the probability you will start your own business in the next five years.

- 1 2 3 4 5**

2. How attractive an idea is starting your own business to you?

- 1 2 3 4 5**

3. What is your perceived value of starting your own business in terms of autonomy...?

- 1 2 3 4 5**

...and what is the likelihood of this actually occurring.

- 1 2 3 4 5**

4. What is your perceived value of starting your own business in terms of stress...?

- 1 2 3 4 5**

...and what is the likelihood of this actually occurring.

1 2 3 4 5

5. What is your perceived value of starting your own business in terms of financial performance...?

1 2 3 4 5

...and what is the likelihood of this actually occurring.

1 2 3 4 5

6. What is your perceived value of starting your own business in terms of personal satisfaction...?

1 2 3 4 5

...and what is the likelihood of this actually occurring.

1 2 3 4 5

7. What is your perceived value of starting your own business in terms of personal quality of life...?

1 2 3 4 5

...and what is the likelihood of this actually occurring.

1 2 3 4 5

8. Rate the perceived reaction you could expect from friends to the subject of you starting your own business...

1 2 3 4 5

...and then the perceived importance of their opinions.

1 2 3 4 5

9. Rate the perceived reaction you could expect from parents/family to the subject of you starting your own business...

1 2 3 4 5

...and then the perceived importance of their opinions.

1 2 3 4 5

10. Rate the perceived reaction you could expect from mentor/role model to the subject of you starting your own business...

1 2 3 4 5

...and then the perceived importance of their opinions.

1 2 3 4 5

11. Rate the perceived reaction you could expect from significant other to the subject of you starting your own business...

1 2 3 4 5

...and then the perceived importance of their opinions.

1 2 3 4 5

Self-efficacy.

Can you do the following.... Circle yes or no ... and then indicate your degree of confidence regarding the following (please circle one answer in each line based on 1-5 below).

1 strongly confident
2 confident
3 undecided
4 not confident
5 strongly not confident

12. I will be able to achieve most of the goals I have set for myself.

YES NO

- | | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
|--|---|---|---|---|---|
13. When facing difficult tasks, I am certain I will accomplish them.
- | | | | | YES | NO |
|--|--|--|--|-----|----|
|--|--|--|--|-----|----|
- | | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
|--|---|---|---|---|---|
14. In general, I think I can obtain outcomes that are important to me.
- | | | | | YES | NO |
|--|--|--|--|-----|----|
|--|--|--|--|-----|----|
- | | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
|--|---|---|---|---|---|
15. I believe I can succeed at most any endeavor to which I set my mind.
- | | | | | YES | NO |
|--|--|--|--|-----|----|
|--|--|--|--|-----|----|
- | | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
|--|---|---|---|---|---|
16. I will be able to successfully overcome many challenges.
- | | | | | YES | NO |
|--|--|--|--|-----|----|
|--|--|--|--|-----|----|
- | | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
|--|---|---|---|---|---|
17. I am confident that I can perform effectively on many different tasks.
- | | | | | YES | NO |
|--|--|--|--|-----|----|
|--|--|--|--|-----|----|
- | | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
|--|---|---|---|---|---|
18. Compared to other people, I can do most tasks very well.
- | | | | | YES | NO |
|--|--|--|--|-----|----|
|--|--|--|--|-----|----|
- | | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
|--|---|---|---|---|---|
19. Even when things are tough, I can perform quite well.
- | | | | | YES | NO |
|--|--|--|--|-----|----|
|--|--|--|--|-----|----|
- | | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
|--|---|---|---|---|---|
-

Can you do the following.... Circle yes or no ... and then indicate your degree of certainty in performing each of the following roles/tasks (please circle one answer in each line based on 1-5 below).

- 1 completely certain**
- 2 certain**
- 3 undecided**
- 4 uncertain**
- 5 completely uncertain**

Marketing

- | | | | | | | |
|-----|---------------------------------|----------|----------|----------|------------|-----------|
| 20. | Set and meet market share goals | | | | YES | NO |
| | | 1 | 2 | 3 | 4 | 5 |
| 21. | Establish positioning in market | | | | YES | NO |
| | | 1 | 2 | 3 | 4 | 5 |
| 22. | Expand business | | | | YES | NO |
| | | 1 | 2 | 3 | 4 | 5 |

Innovation

- | | | | | | | |
|-----|---|----------|----------|----------|------------|-----------|
| 23. | Engage in new venturing and new ideas | | | | YES | NO |
| | | 1 | 2 | 3 | 4 | 5 |
| 24. | Engage in new markets/products/technologies | | | | YES | NO |
| | | 1 | 2 | 3 | 4 | 5 |

Management

- | | | | | | | |
|-----|--|----------|----------|----------|------------|-----------|
| 25. | Reduce risk and uncertainty | | | | YES | NO |
| | | 1 | 2 | 3 | 4 | 5 |
| 26. | Develop strategic plans with information systems | | | | YES | NO |
| | | 1 | 2 | 3 | 4 | 5 |

27. Define organizational roles, responsibilities and policies

YES NO

1 2 3 4 5

Financial control

28. Perform financial analysis

YES NO

1 2 3 4 5

29. Develop financial systems and internal controls

YES NO

1 2 3 4 5

Cultural values.

Please think of an ideal job – disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you...? (Please circle one answer in each line based on 1-5 below).

- 1 of utmost importance**
- 2 very important**
- 3 moderately important**
- 4 of little importance**
- 5 of very little or no importance**

30. Have sufficient time left for family life or personal life

1 2 3 4 5

31. Have good physical working conditions (good ventilation and lighting, adequate work space, etc.)

1 2 3 4 5

32. Have a good working relationship with your direct supervisor
- 1 2 3 4 5
33. Have security of employment
- 1 2 3 4 5
34. Work with people who cooperate well with one another
- 1 2 3 4 5
35. Be consulted by your direct supervisor in his/her decisions
- 1 2 3 4 5
36. Have an opportunity for advancement to higher level jobs
- 1 2 3 4 5
37. Have an element of variety and adventure in the job
- 1 2 3 4 5

In your private life, how important is each of the following to you? (Please circle one answer in each line across):

38. Personal steadiness and stability
- 1 2 3 4 5
39. Thrift
- 1 2 3 4 5
40. Persistence (perseverance)
- 1 2 3 4 5
41. Respect for tradition

1 2 3 4 5

42. How often do you feel nervous or tense at work?

- 1 always
- 2 usually
- 3 sometimes
- 4 seldom
- 5 never

43. How frequently, in your experience, are subordinates afraid to express disagreement with their superiors?

- 1 very frequently
- 2 frequently
- 3 sometimes
- 4 seldom
- 5 very seldom

How much do you agree or disagree with each of the following statements?

(Please circle one answer in each line across)

- 1 strongly agree
- 2 agree
- 3 undecided
- 4 disagree
- 5 strongly disagree

44. Most people can be trusted

1 2 3 4 5

45. One can be a good manager without having precise answers to most questions that subordinates may raise about their work

1 2 3 4 5

46. An organization structure in which certain subordinates have two bosses should be avoided at all cost

1 2 3 4 5

47. Competition between employees usually does more harm than good

1 2 3 4 5

48. A company's or organizations rules should not be broken- not even when the employee thinks it is in the company's best interest

1 2 3 4 5

49. When people have failed in life it is often their own fault

1 2 3 4 5

Some information about yourself (for statistical purposes)

50. Are you: 1. **Male**
2. **Female**

51. How old are you: 1. **Under 20**
2. **20-24**
3. **25-29**
4. **30-34**
5. **35-39**
6. **40-49**
7. **50-59**
8. **60 or over**

52. How many years of formal schooling (or their equivalent) did you complete (starting with primary school):

1. **10 years or less**
2. **11 years**
3. **12 years**
4. **13 years**
5. **14 years**
6. **15 years**
7. **16 years**
8. **17 years**
9. **18 years or over**

53. If you have or had a paid job, what kind of job is it? (Circle one answer only)

1. **No paid job (including fulltime students)**
2. **Unskilled or semiskilled manual worker**
3. **Generally trained office worker or secretary**
4. **Vocationally trained craftsperson, technician, informatician, nurse, artist or equivalent**
5. **Academically trained professional or equivalent (but no manger of people)**
6. **Manager of one or more subordinates (non managers)**
7. **Manger of one or more managers**

54. What major ethnic group do you consider yourself to belong to?

Answer: _____

55. And what was your nationality at birth (if different)?

Answer: _____