### PATH ANALYTIC STUDY OF FACTORS AFFECTING ENTREPRENEURIAL INTENTION OF UNDERGRADUATE STUDENTS IN SOUTHWESTERN NIGERIA

### BY

TAIWO MOTOLANI WILLIAMS B.sc Zoology (Lagos), M.sc Marine Biology (Lagos), M.Ed. Counselling Psychology (Ibadan) 136710

A Thesis in the Department of Guidance and Counselling

Submitted to the Faculty of Education in partial fulfilment of the requirements for the award of the degree of

DOCTOR OF PHILOSOPHY

of the

UNIVERSITY OF IBADAN

JUNE 2012

### ABSTRACT

The clamour for the inclusion of entrepreneurship in the curriculum of Nigerian universities has been on the increase. This growing interest may not be unconnected with the rapid rise in the rate of unemployment among school leavers in every facet of human endeavour. Studies on entrepreneurship in the developed countries have been extensive, but research work in Nigeria has not been adequate in investigating the psychosocial factors responsible for entrepreneurial intention. Therefore, this study investigated the causal effects of entrepreneurial self-efficacy, risk-taking propensity, creativity, locus of control, emotional intelligence, social capital, gender stereotype and field of study on entrepreneurial intention of undergraduate students in Southwestern, Nigeria.

A survey research design of *ex-post facto* type was adopted. The population comprised undergraduate students attending six federal and two state universities in South-western, Nigeria. Two hundred and fifty questionnaires were sent to each of the universities used in the study. One thousand, seven hundred and seventy nine participants were sampled, using stratified random sampling technique. Eight instruments were used, namely, Entrepreneurial Self-Efficacy Scale ( $\alpha = 0.62$ ); Risk Style Scale ( $\alpha = 0.78$ ); Multidimensional Perceived Social Support Scale ( $\alpha = 0.90$ ); Rotter's Internal-External Locus of Control Scale ( $\alpha = 0.63$ ); Emotional Intelligence Scale ( $\alpha = 0.90$ ); Creative Personality Scale ( $\alpha = 0.77$ ); Bem's Sex Role Inventory ( $\alpha = 0.75$ ), and Entrepreneurial Intention Questionnaire ( $\alpha = 0.78$ ). Six research questions were answered. Data were subjected to path analysis.

A total of 24 direct and indirect significant pathways were identified. Out of these, five pathways were direct and these were:  $P_{93}$ (emotional intelligence and entrepreneurial intention) ( $\beta$ =0.25),  $P_{94}$ (locus of control and entrepreneurial intention) ( $\beta$ =-0.06),  $P_{95}$  (creativity and entrepreneurial intention) ( $\beta$ =0.18),  $P_{96}$  (social capital and entrepreneurial intention) ( $\beta$ =-0.05), and  $P_{98}$ (entrepreneurial self-efficacy and entrepreneurial intention) ( $\beta$ =0.12), while nineteen were indirect and these were:  $P_{42}P_{84}P_{98}$ ,  $P_{52}P_{85}P_{98}$ ,  $P_{62}P_{76}P_{87}P_{98}$ ,  $P_{43}P_{84}P_{98}$ ,  $P_{63}P_{86}P_{98}$  and  $P_{53}P_{75}P_{87}P_{98}$  among others. The total effects of the selected factors on entrepreneurial intention of the undergraduates indicated that 36.15% was direct, while 63.85% was indirect. Thus, the eight variables contributed a total of 20.4% to the total variance observed on the measure of entrepreneurial intention. Pattern of correlation in the observed data was consistent with the new model, with total difference of 0.047 and mean difference of 0.001.

Consequently, the model is fit and tenable in explaining the causal effects of the independent variables on entrepreneurial intention. Emotional intelligence, creativity, entrepreneurial self-efficacy, locus of control and social capital have direct and indirect influence on entrepreneurial intention. It is, therefore recommended that training programmes relating to the stated factors be put in place to assist in fostering the entrepreneurial intention of students in the university campuses.

**Keywords:** Entrepreneurial intention, Emotional intelligence, Nigeria universities, Path Analysis

Word Count: 438

### **CERTIFICATION**

I certify that this research work was carried out by Taiwo Motolani Williams with Matric Number 136710 in the Department of Guidance and Counselling, University of Ibadan.

Supervisor Dr. David A. Adeyemo B.A.Ed. (Ife); M.Ed., Ph.D. (Ibadan) Senior Lecturer, Department of Guidance and Counselling, University of Ibadan, Ibadan, Nigeria

#### ACKNOWLEDGEMENT

To God be the glory, great things He has done. My thanks and gratitude to the source of all wisdom, faithful Father of Glory, the beginning and the end, for the successful completion of this Ph.D work. He alone is worthy of my praise and adoration.

My sincere appreciation goes to my academic adviser and supervisor, Dr. David Akinlolu Adeyemo, who gave his time, attention and resources to make sure that this study ended beautifully. May God continue to bless you and your entire household and take you to greater heights beyond your expectations in life.

I am also grateful to Dr Oyesoji Aremu. May God always be there to hear you and grant your heart desires. I appreciate the contributions of all the lecturers in the Department of Guidance and Counselling. Specifically, I appreciate Professors C.B.U. Uwakwe and Ajibola Falaye, Drs. Ayo Hammed , S. O.Salami, (Mrs.) C.C. Azuzu, Bayo Oluwole, Audu Jimoh, Moses Ogundokun, E.A.Awoyemi, B.Okpara and J. Fehintola. I thank you all.

I cannot forget my immediate family members for their support. I am grateful to my darling husband (Akanbi Bamikole). You are one in a million! I thank you for being my pillar of support, without you, this work would not have been possible. My beautiful gifts from heaven, Olusola and Oluwademilade, I am very grateful to you for creating the right atmosphere for me to concentrate, especially while writing this thesis. I also want to thank them for their love.

I must not forget my Father, Rtd. Hon. Justice Olatunji Jegede, who always wished to be called Baba Doctor. I praise God for making this a reality in your life time. May God grant you many more years of His divine love. To my wonderful siblings, Eniola, Kehinde, Babatunde and their spouses, Wunmi, Mopelola and Ayoyemi. May God bless and continue to enrich your coasts. This appreciation will not be complete without mentioning Dr M.S. Eniola, Dr. & Dr. (Mrs.) Yacob Haliso, may God bless you both. I am also thankful to Dupe Amosun, Professors E.B. Esan, V. Adisa, Titi Hassan and Grace Tayo, Drs. (Mrs.) Ruth Aderanti, Jude Komolafe, Onabamiro, Bayo Ayodele and Muyideen Lawal, Mr. and Mrs. Ayo Egunjobi, Tayo Odewusi, Ezi and Goodluck Madukoma, Lenda NehMamma George, Goodluck Allison, Segun Ojuola, Olufunke Afolayan. I appreciate you all for being there for me.

I appreciate the support and understanding of my friends in the Department of Guidance and Counselling. Omowunmi Adegun, Bukola Obasola, Alex Agokei, Ike Olayemi, Beatrice, Ayodele Womiloju .You have all contributed to this great success.

### DEDICATION

This research is dedicated to the Everlasting God, the Alpha and Omega. It is also dedicated to the memory of my late Mother (Florence Adedoja Jegede).

# TABLE OF CONTENT

CONTENT	PAGE
Title Page	i
Abstract	ii
Certification	iii
Acknowledgement	iv
Dedication	vi
Table of Content	vii
List of Tables	х
List of Figures	xi
CHAPTER ONE: INTRODUCTION	
1.1 Background to the study	1
1.2 Statement of the problem	11
1.3 Purpose of the study	12
1.4 Significance of the study	13
1.5 Scope of the study	13
1.6 Operational Definition of Term	14
CHAPTER TWO: LITERATURE REVIEW	
2.1 Introduction	15
2.2 Theoretical Review	15
2.3 Empirical Review	15
2.4 The discovery theory of entrepreneurship	16
2.5 The creative theory of entrepreneurship	17
2.6 Self-efficacy	18
2.7 Risk-taking propensity	19
2.8 Social capital	20
2.9 Locus of control	21
2.10 Emotional Intelligence	22
2.11 Creativity	22
2.12 Gender stereotype	25
2.13 Field of study/ discipline	26
2.14 Self-efficacy theory	27

2.15 Bird's model of implementing entrepreneurial ideas	30			
2.16 Theory of expectancy	30			
2.17 Shapero's entrepreneurial event model				
2.18 Ajzen's theory of planned behaviour	31			
Empirical Review				
Entrepreneurial Self-efficacy and Entrepreneurial intention	33			
Risk-taking propensity and Entrepreneurial intention	38			
Social capital and Entrepreneurial intention	39			
Locus of Control and Entrepreneurial intention	41			
Emotional Intelligence and Entrepreneurial intention	42			
Creativity and Entrepreneurial intention	43			
Gender stereotype and Entrepreneurial intention	44			
Field of study/ Discipline and Entrepreneurial intention	46			
2.19 Research questions	48			
CHAPTER THREE: METHODOLOGY				
3.1 Research Design	49			
3.2 Population of the study	50			
3.3 Sample and Sampling Technique	50			
3.4 Research Instruments	55			
Entrepreneurial Self-Efficacy Scale (ESES)	55			
Risk Style Scale (RSS)	56			
Multidimensional Perceived Social Support Scale (MPSSS)	56			
Rotter's (1966) Internal-External Locus of Control Scale	56			
Emotional Intelligence Scale (EIS)	57			
Creative Personality Scale (CPS)	57			
Bem's Sex Role Inventory	58			
Entrepreneurial Intention Questionnaire (EIQ)	58			
3.6 Procedure for administration of instrument	59			
3.7 Data Analysis	59			

# **CHAPTER FOUR: RESULTS**

Results	67
Summary of findings	84

# CHAPTER FIVE: DISCUSSION, CONCLUSION AND

### RECOMMENDATIONS

5.1 Discussion of findings	86
5.2 Implication of study	94
5.3 Conclusion	95
5.4 Limitations	95
5.5 Contributions to Knowledge	96
5.6 Recommendations	96
5.7 Suggestions for further study	97
REFERENCES	98

APPENDIX

## LIST OF TABLES

TABL	ν <b>Ε</b>	
1.1	National Unemployment Rates (2000 - 2009)	7
1.2	National Unemployment Rates by State as At March, 2009	8
1.3	Unemployed Persons by Educational Level, Age Group and Gender as	
	At March, 2009 For Urban and Rural Nigeria	10
3.1	Independent and Dependent variables	49
3.2	Federal and State Universities in Southwestern, Nigeria	51
3.3	Selected Federal and State Universities in Southwestern, Nigeria	51
3.4	Selected Faculties/ colleges in Federal and State Universities in	
	Southwestern, Nigeria	52
3.5	Distribution of questionnaires by institution	53
3.6	Distribution by sex of the respondents	59
4.1	Composite effect of the selected variables on entrepreneurial intention	67
4.2	Relative contribution of each of the independent variable on	
	entrepreneurial intention	68
4.3	Path coefficient (Beta weights) and Zero order correlations among	
	variables in the hypothesized model on entrepreneurial intention	69
4.4	Significant paths and their path coefficients	73
4.5	The original and reproduced correlation matrix for the nine variables	
	in the model	77
4.6	Discrepancies between the original and reproduced correlation in the	
	model	78
4.7	Proportion of the total effects of the independent variables that are direct	
	and indirect on entrepreneurial intention	80
4.8	Significant pathways indicating direct and indirect effects of the	
	independent variables on entrepreneurial intention	82

# LIST OF FIGURES

3.1.1	Hypothesized causal linkages of Variables $V_1$ , $V_2$ and $V_7$	
	(Gender stereotype, field of study and risk-taking propensity)	60
3.2	Hypothesized causal linkages of Variables $V_1$ , $V_2$ , $V_3$ , $V_4$ , $V_7$	61
3.3	Hypothesized causal linkages of Variables $V_1$ , $V_2$ , $V_3$ , $V_4$ , $V_5$	62
3.4	Hypothesized causal linkages of Variables $V_1$ , $V_2$ , $V_3$ , $V_4$ , $V_5$ , and $V_6$	63
3.5	Hypothesized causal linkages of Variables $V_{4}$ , $V_{6}$ , $V_{8}$ and $V_{9}$	64
3.6	Hypothesized Path Model of the nine Variables	66
4.1	Hypothesized recursive path model of nine variables	72
4.2	Validated recursive path model of nine variables	76
4.3	Proportion of total effects of the independent variables that are	
	direct and indirect on entrepreneurial intention	81

# CHAPTER ONE INTRODUCTION

### **1.1** Background to the Study

Entrepreneurship as a concept is known and appreciated all over the world, especially in developed countries. Increasingly, it is becoming an important issue for policy makers trying to search for new ways of increasing and improving economic growth, through job creation and innovation. This is because the 21<sup>st</sup> century labour market is laden with challenges where a number of professionals are confronted with the choice of creating their own company. A development that occurred because of limited job opportunities and /or the fear of losing their present employment.

Entrepreneurial intention is the cognitive representation of the actions to be implemented by individuals to either establish new independent ventures or to create new value within existing companies (Fini, Grimaldi, Marzocchi & Sobrero, 2009). In the entrepreneurship literature many scholars have focused on intentions (Bird, 1988; Krueger, Reilly & Carsrud, 2000). Intentions have been proved to be the best predictor of individual behaviours particularly when the behaviour is rare, hard to observe or involves unpredictable time lags (Krueger & Brazeal, 1994). The establishment of new ventures and the creation of new value in existing ones, which have been identified by Bird (1988) as the two outcomes of entrepreneurial intentions, are good examples of such behaviours.

The decision to become an entrepreneur may be plausibly considered as voluntary and conscious (Krueger et al., 2000), thus, it seems reasonable to analyse how that decision is taken. Entrepreneurship may be viewed as a process that occurs over time (Kyrö & Carrier, 2005). Therefore, according to Lee and Wong (2004), entrepreneurial intentions would be the first step in the evolving and sometimes long-term process of venture creation. Again, the intention to start-up, would be a previous and determinant element towards performing entrepreneurial behaviours (Fayolle & Gailly, 2004) and the single best predictor of that behaviour (Ajzen, 2001).

A different and more rigorous approach to entrepreneurial intentions is rooted in the psychological literature where intentions have been studied in terms of process models (intention models) (Souitaris, Zerbinati & Al-Laham, 2007; Kolvereid & Isaksen, 2006; Rotefoss & Kolveried, 2005). These models, which include those based on the theory of planned behaviour (Ajzen, 1991), offer a coherent, parsimonious, highly-generalisable and robust theoretical framework for understanding and predicting intentions (Krueger et al., 2000). More specifically, if this model is applied to entrepreneurial intentions, it would offer an opportunity to better understand and predict entrepreneurial activities. Delmar and Shane(2003) corroborates this findings when they stated that it is certainly true that entrepreneurial ideas begin with inspiration; though intentions are needed in order for them to become manifest. Consistent with this approach, Krueger et al. (2000) argued that individuals do not start a business as a reflex but they do it intentionally. An unresolved issue in the study of entrepreneurs is that of factors considered by individuals before attempting to establish new ventures as well as which of these factors are most influential to a decision after deliberation is complete. A number of factors from literature, especially in developed countries have been adduced to be responsible for the reason why some people choose to be self-employed and start their own businesses and others are oriented to seeking the traditional salary employment.

One of the factors in the present study which could be a useful measure on the entrepreneurial intention of undergraduate students is entrepreneurial self-efficacy (ESE) which is relatively new to research on entrepreneurship. It could be described as the strength of an individual's belief that he or she is capable of successfully performing the tasks of an entrepreneur. It has been found that a strong sense of personal efficacy is related to better health, higher achievement and better social integration (Bandura, 1997; Schwarzer, 1992).

Self-efficacy has an influence on preparing action because self-related cognitions are a major ingredient in the motivation process. People with high self-efficacy choose to perform more challenging tasks (Bandura, 1997). They set high goals for themselves and stick to them. Actions are pre-shaped in thought, and people anticipate either optimistic or pessimistic consequences in line with their level of self-efficacy. Once an action has been taken, highly self-efficacious people invest more effort and persist longer than those low in self-efficacy such that, when there is a setback or an impediment to achieving their goals; individuals with high self-efficacy also allows people to select challenging settings, explore their environment or create new ones. There are individuals with self-doubts, who cannot motivate themselves. They see little point in even setting a goal if they believe they do not have what it takes to succeed. Boyd and Vozikis (1994) and Bandura (1998) suggested that self-efficacy

may be the belief that lies behind entrepreneurial intentions, since it was proposed as an important explanatory variable in determining both the strength of entrepreneurial intentions and the likelihood that those intentions will result in entrepreneurial actions.

The entrepreneur is a bearer of uncertainty. Risk-taking propensity may be viewed as one's inclination towards taking chances in a decision-making situation especially as it relates to starting a new business. Individuals that are risk-seekers tend to view situations involving risk as having the likelihood of a positive outcome (or higher probability of gain) compared to those that are risk-averse (Sitkin & Pablo, 1992). Stewart and Roth (2001); Weber, Blais, and Betz (2002) have also demonstrated that individuals' entrepreneurial intention is influenced by risk-taking propensity. Human risk taking is highly situational and driven by risk perceptions. Thus, a general measure of risk taking is likely to be highly misleading. For example, Brockhaus (1980) maintains that risk-taking propensities are not good predictors of entrepreneurial behaviour and Brockhaus (1982) observes that entrepreneurs tend to have only moderate risk-taking propensity just like most of us.

Social capital has been defined by World Health Organisation, WHO (1998) as the degree of social cohesion which exists in communities. It refers to the processes between people which establish networks, norms and social trust and facilitate coordination and co-operation for mutual benefit. Social capital is considered to originate and operate from different sources within the community. Social capital can be built in families, schools and other educational institutions, businesses, civic institutions and in the local community. It is important that the role of the family, especially parenting, in creating many of the norms and networks that characterise social capital be recognised. This is particularly significant in view of the changes that have occurred and are occurring in the concept and structure of the family in recent decades. Successful entrepreneurs are constantly engaged in social exchanges with a wide variety of networks to creating social capital through trust, mutual obligation, expectations and norm setting activities (Frazier & Niehm, 2004).

Another variable of interest in the current study is locus of control. It is a dispositional characteristic that determines whether people typically believe they have control over events and are responsible for their outcomes or whether they believe that forces outside of their control, such as luck or fate, are what control their life events. Locus of control refers to the ability he/she has to influence events in his/her

life. This could be internal or external; individuals with internal locus of control believe they have influence over outcomes through their abilities, efforts or skills while those with external locus of control believe that forces outside their control determine their outcomes (Begley & Boyd, 1987; Rotter, 1966). In other words, it could be argued that individuals with an internal locus of control would likely seek entrepreneurial roles because they desire positions in which their actions have a direct impact on results. Brockhaus (1982) and Gasse (1985) observe that entrepreneurs have greater internal locus of control than the general population; therefore, entrepreneurs believe that the outcome of a business venture will be influenced by their efforts.

Everyone is primarily emotional. Everything that people do or refrain from doing, is triggered by their deeper emotions. Emotional intelligence (EI) in this context is the capability of an individual to understand and cope with a situation and the stress that is involved in starting a business. It was defined as a different way of being smart Goleman (1995) and also plays a role in an individual's continued success. Thus, to be emotionally and socially intelligent implies the ability to effectively manage personal, social and environmental change by realistically and flexibly coping with the immediate situation, solving problems and making decisions (Adeyemo & Ogunyemi, 2005). By developing their emotional intelligence individuals can become more productive and successful at what they do and help others become more productive and successful too. The process and outcomes of emotional intelligence development also contain many elements known to reduce stress—for individuals and therefore organisations—by moderating conflict; promoting understanding and relationships as well as fostering stability, continuity and harmony, it also links strongly with concepts of love and spirituality (Goleman, 2006).

Creativity is not the exclusive right of a chosen few. It is in all human beings though the degree may vary considerably in individuals. Creativity is increasingly recognized as a vital component of entrepreneurship by researchers and educators. Many establishments these days are interested in knowing how to infuse creativity in their organization in order to improve the quality of their services. This is in accordance with Ward (2004); and Kao, (1989) who view creativity as playing an important role in enhancing entrepreneurial ventures.

Creativity is usually defined as a combination of novelty and appropriateness and has been associated with problem-solving and novelty generation as well as with reactive and adaptive behaviour that allows people to cope with turbulent environment. Creativity also contributes to society at large by fostering new approaches to solving old problems. The study of creativity to entrepreneurial intention is of great importance especially in Nigeria where there are so many people with certificates but no meaningful or gainful employment and in situations where these individuals have succeeded in starting their own businesses, the competition is high. Therefore, there is the need to be creative in the new enterprise and add value to whatever is been created. Highly creative individuals are willing to start something new and make a difference in the economy of a country. Naturally, an individual who cannot take risks or has low self-efficacy cannot be creative since entrepreneurial activities involve the process of doing something new (creative) and something different (innovative) for the purpose of creating wealth for the individual and adding value to the society. Entrepreneurship is the assumption of the necessary risks. This suggests that, perception of risks may likely affect the creative power of an individual. The risks involved in an entrepreneurial process could take many forms which may be financial, psychological or social in nature.

The understanding of differences between men and women in their desire to become entrepreneurs is of great importance. These differences may be due, in part, to men having higher levels of confidence in their ability to perform entrepreneurial tasks such as developing a unique and feasible idea for a business, raising venture money and hiring employees. Another fundamental reason for a gap between men and women, or so it is seems could be that girls are differently socialised as boys, leading to differences in career aspirations including the desire to be an entrepreneur, thus girls may find it difficult to have enough confidence to go into areas which could be referred to as male dominated (Scherer, Brodzinski & Wiebe, 1990; Mueller, 2004). In almost all cultures in Nigeria, females are expected to be helpers to their husbands and as such their careers may not be all that important as those of the males. These traditional expectations may impact on their entrepreneurial intentions or decisionmaking.

There is also additional evidence that low levels of entrepreneurial selfefficacy among women and subsequent low levels of entrepreneurial intentions exist well outside the cultural and political boundaries of the United States. In most developing countries, Nigeria inclusive, it is known that there are some areas of career choices that women do not find easy to venture into. For example, stereotype related careers like engineering, surgery and judiciary are predominantly dominated by men while those associated with nursing and general services tend to be largely dominated by women. This is probably because females at an early age are taught how to relate and be empathetic (that is, females are generally the primary parent, nurturer and housekeeper), thus their identities are forged within the family relationship. In contrast, males are encouraged to develop independence and organisational skills and control. It is also likely that men who have high entrepreneurial self-efficacy towards starting a business are likely to be great risk-takers, rugged individuals who are alert to opportunities. In addition, women have been stereotyped as conservative and riskaverse, investing only in ways unlikely to lose much money while males are viewed as taking more risks than females.

Extending this line of reasoning to the field of entrepreneurship, it can be argued that because entrepreneurship is often associated with masculine characteristics, such as autonomy, perseverance, high energy levels, self-confidence and decisiveness, this may negatively affect the entrepreneurial self-perception of women. This could be as a result of family commitments whereby, women are more inclined to taking care of their immediate families rather than choosing some tasking careers that will take their attentions away from their families. This study posits to find out and bridge the gap in literature about some of the factors that may gear up entrepreneurial intention of undergraduate students since not much has been done in this area in Nigeria.

The inadequacy in entrepreneurship education, which is required to provide the necessary skills to meet the demands of the labour market and provide the desired skills acquisition aimed at creating new businesses is a pressing issue in tertiary institutions in Nigeria presently. This has inadvertently led to a high rise in the rate of unemployment in the country. Could these also have been the reason for the recent clamour for the inclusion of entrepreneurship into the curriculum of tertiary institutions in Nigeria by the National Universities Commission (NUC)? This directive as given by the National Universities Commission (NUC) was to take effect from 2006/2007 academic session. Alarape (2008) reported that only one federal university has fully implemented this (Obafemi Awolowo University) and that what is obtainable at the University of Ibadan is the Center for Entrepreneurship and Innovation (CEI).

This high rate of unemployment evidenced in Table 1.1 was put at 19.7percent of the total labour force as at March 2009, thus revealing a sharp increase when compared with 14.9% in March 2008 (National Bureau of statistics, NBS) (2010). Earlier, The National Bureau of Statistics (2008) reported that every year, about 4.5 million youths enter the labour market without any hope of getting employments for life sustenance. Out of this figure, about 200,000 were graduates of tertiary institutions, who despite their skills and formal education find it difficult to secure a good paying job.

Year	Rates
2000	13.1
2001	13.6
2002	12.6
2003	14.8
2004	13.4
2005	11.9
2006	12.3
2007	12.7
2008	14.9
2009	19.7

<b>Table 1.1:</b>	National	Unemployment	Rates	(2000 - 1	<b>2009</b> )

Source: National Bureau of Statistics, Abuja (2010)

Table 1.1 above shows the unemployment rate between 2000 and 2009. This Table shows there is an increase in the unemployment rate from 2004 to 2009.

State	Percentage
Abia	14.5
Adamawa	29.4
Akwa Ibom	34.1
Anambra	16.8
Bauchi	37.2
Bayelsa	38.4
Benue	8.5
Borno	27.7
Cross River	14.3
Delta	18.4
Ebonyi	12.0
Edo	12.2
Ekiti	20.6
Enugu	14.9
Gombe	32.1
Imo	20.8
Jigawa	26.5
Kaduna	11.6
Kano	27.6
Katsina	37.3
Kebbi	12.0
Kogi	19.0
Kwara	11.0
Lagos	19.5
Nassarawa	10.1
Niger	11.9
Ogun	8.5
Ondo	14.9
Osun	12.6
Оуо	14.9
Plateau	7.1
Rivers	27.9
Sokoto	22.4
Taraba	26.8
Yobe	27.3
Zamfara	13.3
FCT (Abuja)	21.5
Nigeria	19.7

 Table 1.2: National Unemployment Rates by State as at March, 2009

Source: National Bureau of Statistics, Abuja (2010)

Table 1.2 above shows the unemployment rate by state in Nigeria as reported by the National Bureau of Statistics in 2010. Bayelsa State recorded the highest unemployment rate while Plateau state recorded the least. The composite national unemployment rate may conceal the peculiarities of the states. For instance, there were states which recorded high composite unemployment rates greater than the 19.7%, the overall national unemployment rate. These states include Bayelsa (38.4%), Katsina (37.3%), Bauchi (37.2%), Akwa- Ibom (34.1%), Gombe (32.1%), Adamawa (29.4%), Borno (27.7%), Kano (27.6%), Yobe (27.3%), Taraba (26.8%), Jigawa(26.5%), FCT (21.5%), Imo (20.8%) and Ekiti (20.6%) while Plateau State recorded the lowest figure of 7.1%. The rate of unemployment in the six western states of Nigeria (Lagos, Ogun, Ondo, Oyo, Ekiti and Osun) is an average of 15.1%.

#### **Table 1.3:** Unemployed Persons by Educational Level, Age Group and Gender as at March, 2009 in Urban and Rural Nigeria

IL	0		$\sim$		Nigeria	
Educational Level	Urban	Rural	Composite	Urban	Rural	Composite
All Levels	100.0	100.0	100.0	100.0	100.0	100.0
No Schooling	0.0	0.8	0.5	0.8	3.2	2.5
Primary	5.7	13.9	11.0	20.4	37.3	32.7
JSS	1.8	4.1	3.3	5.0	8.1	7.2
Vocational	0.0	0.0	0.0	0.1	0.0	0.0
SSS	43.7	62.1	55.6	37.2	39.2	38.7
NCE/ OND	16.1	6.9	10.2	15.1	5.7	8.3
B.A/ B.Sc/ B.Ed/ HND	32.0	11.6	18.8	19.1	5.1	8.9
M.Sc/ M.A	0.5	0.5	0.5	1.5	0.1	0.5
Doctorate	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.2	0.1	0.2	0.9	1.2	1.1
Age Group						
15 - 24	39.0	50.8	46.7	28.9	32.8	32.0
25 - 44	54.8	43.6	47.4	53.0	46.0	47.5
45 – 59	4.8	4.3	4.5	14.5	16.5	16.1
60 - 64	1.4	1.3	1.3	3.6	4.6	4.4
Gender						
Male	50.4	57.4	55.0	48.4	52.9	51.9
Female	49.6	42.6	45.0	51.6	47.1	48.1

Source: National Bureau of Statistics, Abuja (2010)

Note: ILO = International Labour Organisation

Table 1.3 also shows that unemployment has been unevenly distributed across the age groups with young people bearing the burden of unemployment. From the Table 1.3, the unemployed persons were mostly youths aged 25 to 44 years. Of the total unemployed persons in March, 2009 survey, 32.0 per cent were aged below 25 years, while 47.5 per cent were aged 25 to 44 years and 20.5 per cent were aged 45 to 64 years. It has become worrisome to observe that while the percentages of other group (45 to 64 years) unemployed have been declining consistently over time, that of the younger group is on the increase. The change in the group pattern of individuals affected after this period may not be unconnected with the incessant strike in Nigerian universities which prolong the period or duration of this group of students in the university. These are the individuals found everywhere on the streets with files, looking at posters on poles, reading newspapers at vendors' stands and searching for employment opportunities on a daily basis asking to be given just any type of job to keep body and soul together and in most cases when there are job vacancies, they do not possess appropriate job competencies required by employers while some do not bring their personality traits to their job search behaviour through the adoption of creative and innovative strategies that could promote job security or creation.

#### **1.2** Statement of the Problem

Entrepreneurship is a key driver of the economy in developed countries. The alarming rate of unemployment among Nigerian university graduate students has grave consequences for the growth and development of the nation. Wealth and majority of jobs are created by small businesses started by entrepreneurial minded individuals, many of whom go on to create big businesses. These individuals who are exposed to entrepreneurship frequently are likely to have more opportunity to exercise creative freedom, higher self-esteem, and an overall greater sense of control over their own lives. This is not the situation in Nigeria because the integration of entrepreneurship into the education system is a relatively new concept in Nigeria. In Nigeria, graduates find it difficult to secure jobs after their graduation and this has been traced to the non-availability of courses in their institutions that will assist or train them towards thinking about creating jobs for themselves and creating wealth for the economy. There is a lack of congruence between the skills/programmes of university graduates from our tertiary institutions and labour market job required skills. After the compulsory National Youth Service Corps (NYSC), most graduates

are without jobs and remain jobless for months and even years. This is perhaps because most students believe they are in school to learn how to secure good white collar jobs after graduation and have a difficulty of removing the mentality of white collar jobs as the main and best option for tertiary institution graduates.

The consequences of unemployment cannot be overemphasised. Unemployment would increase poverty level of individuals and thus, their families. The energies of these individuals would be geared towards social ills like armed robbery, prostitution, rape, touting, thuggery and more recently the increase in kidnapping phenomenon in Nigeria. All of these would eventually become an attendant waste of human resources to the nation as a whole and as concluded by Albert (2000), the rising trend of graduate unemployment, as observed by many analysts, may have contributed very significantly to the rising wave and sophistication of crime in the country.

This study is therefore, aimed at bridging the gap in previous researches by trying to explain the factors that could prompt entrepreneurial intention of graduate students in some selected federal and state universities in Southwestern, Nigeria.

### **1.3** Purpose of the Study

The purpose of the study is to identify some pertinent factors that may enhance the entrepreneurial intention of undergraduates in Southwestern, Nigeria. Specifically, the purposes are to:

- Determine the extent to which the selected factors ( entrepreneurial selfefficacy, risk-taking propensity, social capital, locus of control, emotional intelligence, creativity, gender stereotype and field of study/ discipline) would jointly affect undergraduates' entrepreneurial intention;
- Investigate the relative contribution(s) of each of the variables to entrepreneurial intention;
- Identify the most meaningful causal model involving the factors and undergraduates' entrepreneurial intention;
- Determine if there are significant differences between the hypothesised models and the reproduced causal models in relation to entrepreneurial intention of undergraduates

- Determine the proportion (in percentages) of the total effect of the psychosocial factors which impart directly and indirectly on entrepreneurial intention;
- Identify the significant pathways indicating direct and indirect effects of the independent variables on entrepreneurial intention.

### 1.4 Significance of Study

It is important to know what drives undergraduates' decision towards selfemployment. In order to contribute to the improvement on the knowledge of entrepreneurial intention in Nigeria, this study will dwell on the influence of some factors that could affect the entrepreneurial intention of undergraduates. Psychologists and scholars would have an in-depth understanding of the factors and the processes through which entrepreneurial intention develop and manifest.

For entrepreneurs and educators, knowing how entrepreneurial intentions are formed will yield a wealth of practical applications. The expectation is that it will assist educators to develop entrepreneurial training that would increase the probability of intention forming among the undergraduates. The undergraduates or potential entrepreneurs could understand how their intentions are formed and take steps to manipulate the essential variables such as self-efficacy and emotional intelligence to increase their ability and desirability to take decisions that may lead to entrepreneurship. It is also expected that policymakers would benefit from understanding of the impact of policy initiatives that would encourage the formation of intention and ultimately, developing new businesses especially with the wave of corporate downsizing and outsourcing, community economic stability will hinge on new business formation. Finally, the anticipated research output should expand available knowledge in Nigeria and perhaps prompt researchers to go into more research on this issue.

### **1.5** Scope of the study

This study will focus on some factors (entrepreneurial self-efficacy, risktaking propensity, social capital, locus of control, emotional intelligence, creativity, gender stereotype and field of study / discipline) that may influence entrepreneurial intention of undergraduate students. Path analysis technique will be employed to explain the paths of direct and indirect effects of some of the factors influencing the entrepreneurial intention of undergraduate students in southwest, Nigeria. The study will be restricted to only selected federal and state universities in southwest, Nigeria. It will cover only final year students in first semester of study at the selected universities. These are students transiting from school and are ready to enter the labour market.

### **1.6** Operational Definition of Terms

The concepts (terms) used are operationally defined in the study. That is, in the context they are used in the study.

**Entrepreneurial self-efficacy:** This is a construct that measures undergraduate students believe in their ability to successfully launch an entrepreneurial venture when they leave school.

**Risk-Taking Propensity:** This refers to risk acceptance of undergraduate students when entering into entrepreneurship and the probability of them having less than 100 per cent success when the business commenced.

**Social capital:** This is the networks of relationships motivating undergraduate students towards entrepreneurial intention

**Locus of control:** This refers to the extent that undergraduate students believe they have control over the events and outcomes of starting a new business.

**Emotional intelligence:** This is defined as abilities of undergraduate students to recognize and regulate their emotions and those of others during new venture creation.

**Creativity:** This is the expected ability of undergraduate students at creating novelty and value in a new business venture.

**Gender Stereotype:** This is conceptualised as discrimination and prejudice against undergraduate students' engagement in certain stereotyped tasks which may have a negative influence on their intention to become entrepreneurs.

**Field of Study / Discipline:** This is the chosen course of study of the undergraduate students

**Entrepreneurial intention:** This is defined as undergraduate students' natural tendency and desire to become entrepreneurs following their graduation from the university.

**Undergraduates:** In this study, these refer to undergraduate students in their final year of study in the selected universities from southwest Nigeria.

### **CHAPTER TWO**

### LITERATURE REVIEW

### 2.1 Introduction

This chapter will deal with the theoretical and empirical review of relevant literature.

### 2.2 Theoretical Review

The theoretical review will be discussed under the following headings:

- The discovery theory of entrepreneurship
- The creative theory of entrepreneurship
- Self-efficacy
- Risk-taking propensity
- Social capital
- Locus of control
- Emotional intelligence (EI)
- Creativity
- Gender stereotype
- Field of study/ discipline
- Self-efficacy theory
- Bird's model on implementing entrepreneurial ideas
- Theory of expectancy
- Shapero's theory of entrepreneurial events
- Ajzen's theory of planned behaviour

### 2.3 **Empirical Review**

The empirical review of literature will be discussed under the following headings:

- Entrepreneurial Self-efficacy and entrepreneurial intention
- Risk-taking propensity and entrepreneurial intention
- Social capital and entrepreneurial intention
- Locus of Control and entrepreneurial intention
- Emotional Intelligence and entrepreneurial intention
- Creativity and entrepreneurial intention
- Gender stereotype and entrepreneurial intention
- Field of Study/ Discipline and entrepreneurial intention

### 2.4 The discovery theory of entrepreneurship

The theoretical work in the discovery theory, typically called the individual / opportunity nexus view has focused on the existence, discovery and exploitation of opportunities and the influence of individuals and opportunities (Kirzner, 1973; Shane & Venkataraman, 2003). The individual/ opportunity nexus suggests that opportunities are objectives, individuals are unique and the third that entrepreneurs are risk-takers.

### **Objective** opportunities

In the individual/ opportunity nexus view, opportunities have an objective component and these opportunities exist whether or not an individual recognises them (Shane & Venkataraman, 2000; Shane, 2003). These opportunities are derived from the attributes of the industries (or markets) within which an entrepreneur is contemplating action. Thus, an individual who understands the structure of an industry will be able to anticipate the kinds of opportunities that exist in that industry. This view contends that understanding entrepreneurial opportunities is important because the characteristics influence the very value the opportunities might create.

### Unique opportunities

The second assumption is that entrepreneurship requires differences in people and these manifests as in the ability to recognise opportunities (Shane & Venkatarama, 2000). Entrepreneurial alertness is an attitude of receptiveness to available opportunities but currently overlooked by human actors (Kirzner, 1997). This assumption recognises that the entrepreneurial nature of human action refers to more than just the action taken but additionally refers to the human agent that is at all times spontaneously on the look out for unnoticed market imperfections.

### Entrepreneurs are risk-takers

The third assumption of this theory as viewed by Shane (2003) is that riskbearing is a necessary part of the entrepreneurial process. The notion that opportunities are objective by definition assumes risks. In order for the assumption that an opportunity is objective to hold true, the existence of the opportunity is merely a matter of some economic actors having differential information. The idea of imperfectly distributed information is based on neo- classical economics and assumes all relevant information about technologies demand and other determinants of market competition are known to be available but may not be costly to acquire. The economic actor in this view is simply able to acquire the information at a lower cost than other economic actors and this becomes the source of profit.

### 2.5 The creative theory of entrepreneurship

The theoretical work in the creative theory has focused on the entrepreneur and the creation of the firm (Venkataram, 2003; Loasby, 2002; Langlois & Cosgel, 1993). There are three major theoretical assumptions in the creative theory. First, opportunity is subjective, second, individuals are ordinary and lastly, entrepreneurs are uncertainty bearers.

#### Subjective opportunities

The first assumption here is that, opportunities are created through a series of decisions to exploit a potential opportunity. The creative theory suggests that it is difficult to separate the extant and ex-post theory of opportunities. It is understood to mean that the opportunities existing cannot be separated from the economic actors. It is argued in creative theory that under conditions of uncertainty, the attributes of an industry are either not knowable or changing in difficult to predict ways.

### Individuals do not recognise opportunities, they create them

The creative theory suggests that entrepreneurship does not require difference in people but differences in decision- making under entrepreneurial conditions of uncertainty. In this theory, an entrepreneur is not examined as an individual autonomous from the opportunity but as the creator of the opportunity. The individual here is the main actor because the coordination of resources before the outcome value can be known lies with the individual.

### Entrepreneurs bear uncertainty

The third assumption assumes uncertainty and not risk to be a necessary condition for entrepreneurship. Many theoreticians (Shane, 2003; Alvarez & Baney, 2005) have confirmed the differences between risk and uncertainty which yield significantly different outcomes. The creation theory assumes that the decisions made by entrepreneurs are usually uncertain or bear residual uncertainty (Venkataraman,

1997) which may sometimes be ambiguous. Moreover, several theories of entrepreneurship view the entrepreneur as bearing residual uncertainty

### 2.6 Self-efficacy

Self-efficacy has its roots in the social cognitive theory formulated by Bandura (Bandura, 1986). Self-efficacy is defined as the belief one has in his or her capacity to successfully undertake a particular programme of action. It influences goal setting, performance of efforts towards a goal, and insistence of efforts in the face of difficulty. Bandura describes self-efficacy as individuals' confidence in their ability to control their thoughts, feelings, and actions, and therefore influence an outcome.

Self-efficacy as viewed by many studies can influence individuals' actual performance (Locke, Frederick, Lee, & Bobko, 1984; Schunk, 1981), emotions (Bandura, Adams, & Beyer, 1977; Stumpf, Brief, & Hartman, 1987), choices of behaviour (Betz & Hackett, 1981) and amount of effort and perseverance expended on an activity (Brown & Inouye, 1978). Thus, without gain saying, it could be said that a strong sense of self-efficacy enhances human accomplishments in many ways. This is because individuals who believe and have confidence in their abilities think about the potential of the task and thus move ahead irrespective of the number of failures they encounter. These individuals are also likely to recover very quickly when they fail or experience set backs or unfavourable in their endeavours. This is supported by Adeyemo (2007) who states that when students encounter difficult situations such as failure, they continue to persist until success is attained.

Self-efficacy has also been linked with entrepreneurship. For instance, Timmons, Muzyka, Stevenson and Bygrave (1987) argue that the ability to recognise and take advantage of opportunity is the core of entrepreneurship. This central role of opportunity recognition offers another explanation of the mechanism linking entrepreneurial self-efficacy and entrepreneurial performance. Further, they state that a stable belief in one's capabilities is important in two ways: it increases entrepreneurial intention, since it is a prerequisite to start a business, and it increases the chances of starting a business successfully. The central idea behind the concept of self-efficacy is that an individual's belief about his/her efficacy influences what he/she can accomplish. This means the performance of different people with comparable skills, and even the performance of the same person under different circumstances, will differ depending on changes in their self-beliefs. A stable sense of efficacy can enable individuals to use their skills to accomplish extraordinary things and overcome obstacles, whereas a weak sense of efficacy and self-doubt can override skills and lead talented individuals to fail (Bandura, 1997) and in that way, perceived self-efficacy acts as a generative capability.

A difficult task will be approached as a challenge rather than a threat that should be avoided. This fosters interest and involvement in activities and will lead people to set for themselves challenging goals and be committed to the goals. They invest effort which they increase if obstacles arise. Failure will be attributed to insufficient effort and not to insufficient skills. Threats will be approached with confidence in their ability to exercise control over them. This behaviour enhances the level of performance and reduces stress. Their successful mastering of the situation will again strengthen the self-efficacy belief. Successful entrepreneurs need the ability to cope with setbacks. According to Bandura, self-efficacy does not only influence the course of action but also how much effort they put forth in given endeavours and how long they will try to overcome obstacles (Bandura, 1997).

The consideration of the self-efficacy concept can help to chart entrepreneurship courses which enable students to be proactive and behave entrepreneurially in their ventures (Bandura, 1997). Krueger & Dickson's, (1994) study put 153 business majors under controlled laboratory conditions, and asked them to report on decision making, perceived self-efficacy and perceptions of opportunity threat. They observe that perceived self-efficacy on risk taking is significantly and fully mediated by perceptions of opportunities and threats. In other words, selfefficacy perception influences opportunity and threat perception, which then affects risk taking subsequently. The researchers emphasised that the relationship between the three variables will be stronger if the individual had perceived his/her efficacy as influencing his/her outcomes. Krueger and Brazeal (1994) proposed a model based on Shapero's (1982) model that perceived desirability and self-efficacy influence intentions of entrepreneurship. They believe psychological and emotional support enhances self-efficacy.

### 2.7 Risk-taking propensity

One of the important factors regarding creating new ventures is the risk taking propensity or risk bearing ability of an individual. Creating a new firm could be a risky undertaking. This could be as a result of individual or personal as well as environmental factors which could pose as threats to the start or establishment of new ventures. Krueger and Dickson (1994) reported that risk taking is enhanced by perceptions of opportunity and undermined by perceptions of threat and therefore, risk propensity can be defined as a tendency to take or avoid risks. It is a relatively stable characteristic which can be modified through experience. Although it is viewed as an individual characteristic, the positive association between risk propensity and risky decision-making by individuals is expected to translate to organizations through top management teams (Panzano & Billings, 2005).

Risk taking depends on risk propensity and perception. The higher the risk propensity and the lower the risk perception, the more likely it is that risky decisions will be made. Liles (1974) argue that entrepreneurs must accept uncertainty with respect to financial well-being, psychic well-being, career security and family relations.

### 2.8 Social capital

Social capital is broadly described by researchers as the actual and potential assets embedded in relationships among individuals, communities, networks and societies (Burt, 1997; Nahapiet & Ghoshal, 1998). Sociologists and organizational theorists have elaborated three highly interrelated dimensions of social capital: structural capital—the structure of the overall network of relations (Burt, 1992); relational capital—the kind and quality of an actor's personal relations (Granovetter, 1992); and cognitive capital—the degree to which an individual shares a common code and systems of meaning within a community (Nahapiet & Ghoshal, 1998). The third, or cognitive, dimension also refers to how normative and mimetic forces shape behaviour.

The structural dimension according to Burt (1992) refers to the overall pattern of connections between actors—that is, whom one reaches. Structural capital defines the potential or possibilities that the social entrepreneur has to access information, resources and support. It is important to understand the structural dimension of social capital, how it can be built, increased and, most importantly, maintained, since it is one of the factors that will determine whether and to what extent social entrepreneurs are able to solve and alleviate social problems, and elevate them to the public sphere.

The relational dimension of social capital focuses on the quality of relationships, such as trust, respect and friendliness. This is supported by Fukuyama

(1997) who opines that there is growing evidence that when trust is built up between parties, they are more eager to engage in cooperative activity, through which further trust may be generated. Finally, the cognitive dimension derived from mental processes and resulting ideas, reinforced by culture and ideology, specifically norms, values, attitudes, and beliefs predisposes people towards mutually beneficial collective action (Krishna & Uphoff 2002; Uphoff 1999).Although literature on social capital mainly emphasises its positive consequences, social capital may also involve risks and less desirable effects. Nahapiet and Ghoshal (1998) conclude by defining social capital as the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or a social unit. In view of the definition above, it could be said that social capital comprises both the network and the assets that may be mobilised through that network.

In their own view, Adler and Kwon (2002) gave a definition for social capital as the resource available to actors as a function of their location in the structure of their social relations. In defining social relations, they distinguish conceptually among three dimensions of social structure, each rooted in different types of relations: (1) market relations, in which products and services are exchanged for money or bartered, (2) hierarchical relations, in which obedience to authority is exchanged for material and spiritual security, and (3) social relations, in which favours and gifts are exchanged. The third type of relationship constitutes the dimension of social structure underlying social capital.

### 2.9 Locus of Control

Locus of control is another motivational trait that has received attention. It is the belief in the extent to which individuals trust that their actions or personal characteristics affect outcomes. People with high internal locus of control (LOC) believe they influence the outcomes of their lives. They believe they have more control over life events, including their own success or failure. On the other hand, individuals with a more external LOC feel their lives are heavily influenced by forces which they cannot control such as luck, fate or powerful others (Rotter, 1966). Studies (Brockhaus, 1975, 1980; Korunka, Frank, Leuger & Mugler, 2003) have shown a relationship between entrepreneurs and internal locus of control. Rotter refers to those individuals who believe they control their destinies as internals, while those who see their lives as controlled by outside forces are referred to as externals (Rotter, 1966).

In general, research has consistently shown that high internals are more satisfied with their jobs, have lower absenteeism rates, and are more committed to the organisation than are high externals (Blau, 1987). Trevino (1986) suggests that those with external locus of control may have a greater propensity to act unethically, since they rely on fate and luck, whereas, those with internal locus of control are able to rationalise and control their behaviour and would possess a greater propensity to take responsibility in their determination of right or wrong and thus, behave more ethically than externals because, they also believe they are in control and are open to new experiences to improve performance (Lussier, 2008).

### 2.10 Emotional Intelligence

Emotional intelligence has been defined by a number of researchers (Schutte, Malouff, Hall, Haggerty, Cooper, Golden, et al, 1998; Salovey & Mayer, 1990) as the ability to adaptively perceive, understand, regulate and harness emotions in the self and others. High levels of emotional intelligence usually contribute to success in important realms of life, such as education, work, and relationships. In other words, those who are able to understand and regulate their emotions should be able to generally maintain a better outlook to life and experience better emotional health. Some empirical evidence that emotional intelligence is associated with emotional well-being comes from research indicating that high emotional intelligence is associated with less depression (Martinez-Pons, 1997; Schutte et al., 1998), greater optimism (Schutte et al., 1998), and greater life satisfaction (Ciarrochi, Chan & Caputi, 2000; Martinez-Pons, 1997).

### 2.11 Creativity

Creativity is regarded as a globally inevitable variable in the history of an entrepreneur (Antonites, 2003). When cognition and entrepreneurial drive are infused with the knowledge, ingenuity and the experience of a lifetime; it is then filtered through the enigma of intuition. Intuition according to Carland, Carland and Stewart (1996) is truly the driver which allows someone the ability to see what is not there. There have been many debates over definitions of creativity, its forms, its possible

effects, its relation to the firm and development and discussion of methods to increase it.

It is generally accepted that creativity describes ideas that are novel and of value. It depicts an act of ingenuity in an individual. Lubart (1994); Ward, Finke & Smith, (1995) defines creativity as the capacity to produce novel or original work that fits with task constraints or the development of appropriate and novel solutions. De Bono (1996) later defines creativity as the creation of something that has not been available in the current state. Torrance (1995) on the other hand, defines creativity as a process of being sensitive to problems, deficiencies, gaps in knowledge, missing elements and conflicts. This is applicable to the present study in that, the nation (Nigeria) is plagued with the problem of unemployment; this has led to the many disharmonies in the economy of the country and has brought the so many social problems like stealing, touting, prostitution, kidnapping, robbery that afflict our youths these days. Further, creativity acts as a process of identifying difficulties, searching for solutions, making guesses, or formulating hypotheses about the deficiencies, testing those hypotheses and communicating the results.

There are a number of models or theories which describe creativity from literature. For instance, Csikzenmihalyi (1996) opines that creativity was initially understood as a generic process and the notion of creativity as a domain specific process has led to a systemic view of creativity which recognises the importance of context and situation as important ingredients and perhaps drivers or shapers of creativity while the confluence theories of creativity are multi-factor models that argue several separate but interacting components that must come together to yield original and productive outcomes. It states that creativity can be expressed as the intersection between three separate components, namely task motivation, domainrelevant skills and creativity relevant skills (Amabile, 1998).

Creativity as described by Sternberg (1995) in his investment theory of creativity is a combination of six distinct but interrelated resources namely; intellectual abilities, knowledge, styles of thinking, personality, motivation and environment. Sternberg (1995) suggests that the intellectual skills required for creativity include three particular skills that is, a synthetic skill to see problems in a new way and to escape the bounds of conventional thinking; an analytical skill to recognise which of one's ideas is worth pursuing and practical-contextual skill of how to persuade others about the value of one's ideas.

Creativity has also been described as a process. Creative problem solving as a process was described by Wallas (1926) as a four stage process of preparation, incubation, illumination and verification. Guildford (1950) challenged this as a superficial approach which did not articulate any of the mental processes such as sensitivity to problems, capacity to produce many ideas, capacity to change one's mental set, ability to reorganize, ability to deal with complexity and an ability to evaluate the ideas generated. As a result of this call to research, creativity has come to mean divergent thinking in some circles.

Entrepreneurial processes include the wish to start a business or the specific business idea that was being pursued. Such business ideas may be externally stimulated decisions, a desire to start a business, or an internal search for business opportunities. The development of a solution from the experience of problem solving and the knowledge that others have the same problem and are happy to pay for a solution may provide opportunities to apply the new skill in a particular problem solving activity and also generate potential business opportunities. This was perhaps why Gartner's (1988) description of entrepreneurship as what entrepreneurs do moved the focus to entrepreneurship as a process, understanding that entrepreneurship involves a number of behaviours that entrepreneurs have to perform sequentially over time. These processes include all the cognitive and behavioural steps from initial conception of rough business idea or realisation of business activity until either terminated or has resulted in running a business venture with regular sales (Davidsson, 2006).

Creative people demonstrate autonomy and independence in thought and action, yet they value cooperation and self-control (MacKinnon, 1965). They tend to trust their own judgment and influenced by internal standards rather than by social influence (Baron, 1990; Storr, 1972). This ability to trust one's perspective presumably leaves room for accepting unique perspectives and a willingness to impart novel products. McKinnon (1965) observes creative individuals have more interests and tend to be more expansive in descriptions and understanding. This may reflect willingness or ability to attend to the chaotic aspects of the world we live in rather than the ordered and predictable aspects (Baron, 1990).

Greater richness in experience occurs as efforts are made to integrate diverse impressions in a meaningful manner. The creative individual is also open to experience, which includes openness to inner life (McKinnon, 1962; Storr, 1972).

#### 2.12 Gender stereotype

Gender stereotypes can exert a powerful influence on cognition and behaviour (Heilman, 2001). These stereotypes reflect as well as influence the clear divide between men and women in many achievement-related domains for example, business creation (Nosek, Banaji, & Greenwald, 2002). It has been increasingly recognised that female entrepreneurs are an important and growing proportions of the economy, with higher than average success rates (Carter, 2000). Gender-based research on entrepreneurs has generally indicated that similarities between the two sexes outweigh the differences (Brush, 1992). One might imply from such findings that commonalities between male and female entrepreneurs would result in similar performance outcomes for their ventures. In their efforts to debunk a number of the disparaging myths concerning women entrepreneurs, Brush, Carter, Gatewood, Greene and Hart (2004); Menzies, Diochon, and Gasse (2004) point to some underlying patterns that may help explain growth limitations in women-owned ventures. Their findings suggest that women were less likely to have educational backgrounds in engineering and computing and tended not to take classes on how to start a business. Conversely, men tended to take on partners who were not family members, were more predisposed to start high-tech businesses, and more likely to focus on intellectual property issues when starting a venture. These tendencies may result in ventures of greater scale and higher risk at the time of start-up, enhancing their growth prospects.

Quality-of life considerations may find women resisting growth as they seek greater balance among the demands of work, family and their personal lives. Alternatively, it may be that women who adopt a strong female image superimpose a particular bounded rationality upon their entrepreneurial ventures and approaches to business start-up. In doing so, they may also potentially transfer the stigma of societal myths regarding women entrepreneurs onto the organization, affecting the attitude and ways in which growth is pursued (Brush et al. 2004).

Socialisation processes throughout women's lives may critically affect their self-assessments about being ill-prepared with regard to firm creation—even when outsiders evaluate skills and needs as being equal to those of men (Jones & Tullous, 2002). It has long been recognised that women start ventures that grow at lower rate than those owned by men and tend to set lower business size thresholds beyond which

they prefer not to expand, and to be more concerned with risks attached to fast growth (Hisrich & Brush, 1984;Cliff (1998).

Female entrepreneurs tend to be older and have children in more instances than their male counterparts when starting a business (Sarri & Trihopoulou, 2005) and in most cases women-owned businesses tend to be smaller, with less capital, have lower revenues and fewer employees, and reside in lower-profit industries (Bird, 1989). They also tend to be sole owners and have less managerial experience (Hisrich & Brush, 1984). In terms of personal characteristics, women demonstrate lower levels of self-confidence (Birley, 1989; Chaganti, 1986). Arguably, women-owned ventures are especially affected by conflicts between home and family demands, and these may have deliberate or inadvertent implications for growth (Stoner, Hartman & Arora, 1990).

Although both sexes must deal with conflicting demands that include marriage and family concerns, the fact that women often maintain traditional duties in the household and rear children while also managing their ventures has significant implications regarding choices, priorities, and aspirations(Stevenson, 1986). This was explained by Still & Timms (2000) who state that there is a gender-based circumstance of domestic division of labour and time poverty that women must effectively deal with, in order to maintain balance between conducting a business and maintaining a family.

### 2.13 Field of study / Discipline

The academic setting is an important part of the students' environment, this is because universities are in a position to shape and encourage entrepreneurial intentions. Even more significantly, as much as they can foster entrepreneurial spirit among their graduates, the universities can also inhibit their optimism and may even change over the students who were originally interested in entrepreneurship into graduates interested only in a career at large and established companies. There is ample evidence that not much has been produced in literature about the effect that the field of study has on entrepreneurial intention, though some authors (Varela & Jimenez, 2002) agree that more research is needed to reach a conclusion. However, Morello, Deschoolmeester and Garcia (2003) state; it may not be wrong to presume that the intentions of students who choose technology as a career from could differ those of students who choose engineering and economics because of the differences in the career duration and potential labour markets that the future graduates will enter. Further, Koch (2003) in his study of entrepreneurial education of German Universities recognises the different interests between students of engineering and economics. This study therefore will provide reference point for future studies since it will find the influence that field of study has on entrepreneurial intention.

### 2.14 Self-efficacy theory

The applicability of self-efficacy theory to vocational behaviour was first suggested by Hackett and Betz (1981) and has now been investigated empirically in numerous studies. Self-efficacy which was originally proposed by Bandura (1977), refer to a person's beliefs concerning his or her ability to successfully perform a given task or behaviour, because self-efficacy expectations are behaviourally specific rather than general, the concept must have a behavioural referent to be meaningful. Self-efficacy beliefs also help determine how much effort people will expend on an activity, how long they will persevere when confronting obstacles and how resilient they will be in the face of unfavourable outcomes or situations (Pajares, 2002).

This concept of self-efficacy expectations is particularly useful for both understanding and modifying career behaviour because it is embedded within Bandura's theory. Low efficacy expectations may be accompanied by negative selftalk or anxiety responses, which interfere with focus on the task at hand and thus impair performance. Low self-efficacy may be, in effect, a self-fulfilling prophecy. Finally, the effects of self-efficacy on persistence are essential for long-term pursuit of one's goals in the face of obstacles, occasional failures and dissuading messages from the environment, for example, gender discrimination or harassment (Betz, 2004). On the other hand, the higher the sense of efficacy, the greater the effort, persistence and resilience (Pajares, 2002; Bandura, 1994). The self-efficacy construct as viewed by Bandura (1977, 1981, 1986, 1995, &1997) is made up of two cognitive dimensions namely; perceived self-efficacy and outcome expectancy. Bandura (1997) states that once efficacy beliefs are formed, they are not stable. They can vary in strength because the individual is constantly evaluating new information. However, once efficacy beliefs have been established over long periods of time and based on a large amount of information, they are unlikely to be changed.

Perceived self-efficacy is the belief in one's competence to tackle difficult or novel tasks and to cope with adversity in specific demanding situations. Self-efficacy makes a difference about how people feel, think, and act (Bandura, 1997). People with high self-efficacy choose to perform more challenging tasks. They set high goals themselves higher goals and stick to them. Actions are pre-shaped in thought, and once an action has been taken, highly self-efficacious people invest more effort and persist longer than those low in self-efficacy. When setbacks occur, they recover more quickly and remain committed to their goals. High self-efficacy also allows people to select challenging settings and explore their environment or create new ones. Thus, it represents a belief in one's competence in dealing with all kinds of demands. This implies an internal stable attribution of successful action and a prospective view. These characteristics make it a unique theoretical construct different from related ones such as self-esteem, locus of control, or self-concept (Luszczynska, Gutie 'rrez-Don'a, & Schwarzer, 2005).

Outcome expectancy refers to the outcome expected to occur upon attempts to perform behaviour. People who associate positive outcomes with performance of a specific behaviour are more likely to attempt to perform the behaviour and to persevere if they are not initially successful (Bandura, 1997). People who hold positive views of behavioural outcomes are likely to succeed in performing the behaviour, whereas those who hold negative views are likely to give up or attribute their failure to external factors or their lack of innate talent in the area (Bandura, 1997). Low self- efficacy expectations may prevent a person from attempting to perform a task even if he or she is certain that the performance of that task would lead to a desired outcome. Successful performance of a given task is the most powerful source of strong self-efficacy expectation (Hackett & Betz, 1981; Bandura, 1997). People's beliefs about their efficacy can be developed by four main sources of influence which include mastery experiences, vicarious capability, verbal persuasion and emotional and physiological responses.

The most effective way of developing a strong sense of efficacy is through mastery experience (Bandura 1994). They are the most influential source of information for affecting self-efficacy beliefs because they are based on valid experience in which the individual performs the action (Bandura, Adams & Beyer, 1977). Strong efficacy expectations are developed through repeated success of behaviour and reduced efficacy expectations can result from failures. This is to say that, failures undermine it, especially if failures occur before a sense of efficacy is firmly established. Vicarious processes refer to the human ability to learn not only from direct experience, but also from the observation of others. It could be said in other words that vicarious experiences are actions that an individual watch others perform with the hope that the individual will be able to repeat the action and be successful, provided that the desired behaviour is modeled in a successful manner. Observational learning allows one to develop an idea of how a new task is formed without actually performing the task (Bandura, 1977; 1986; 1989). This information can then be coded (into symbols) and used as a guide for future action. Vicarious learning is important in that it enables humans to form patterns of behaviour quickly, avoiding timeconsuming trial and error, as well as avoiding costly and even fatal mistakes. In addition, vicarious capabilities allow one to explore situations and activities for the attainment of new knowledge that would normally be out of reach due to constraints on time, resources, and mobility.

Observational learning is governed by four processes: attentional span, retention, motor reproduction, and motivational (Bandura, 1977; 1986; 1989). Attentional span refers to a person's ability to selectively observe actions and behaviours in his or her environment. In addition, attentional span mediates the specific information that is extracted from each observation. There are specific observer characteristics as well as modeled activity characteristics that regulate the type and amount of observation that is experienced. For example, the complexity and salience of a modeled activity will influence the attention a person gives to that activity. In addition, the observer is most likely to selectively attend to, and model, behaviours of people that are like them and those they associate with the most. Observed behaviour or activities can only be modeled if they are retained in one's memory.

Retention processes are made possible by the human ability to form symbols from observed behaviour that are stored in one's memory. Once symbols are formed and stored in one's memory, they must be converted into appropriate action for modeling to occur. This is referred to as motor reproduction process, the degree to which a behaviour is seen to result in a valued outcome (expectancies) will influence the likelihood that one will adopt a modeled behaviour (the motivational process).

The third source of information for self-efficacy is verbal persuasion. It involves giving verbal and social praises and encouragements that enable learners exert more effort Prickel (2000). People who are persuaded verbally possess the capabilities to master given activities and are likely to activate greater effort and sustain it than if they had self-doubts that make them dwell on personal deficiencies when problems arise. This persuasion affects a person's emotional state or mood, and mood in turn affects perceived self-efficacy.

The fourth component for self-efficacy beliefs is physiological and emotional arousals. Perceived self-efficacy can be enhanced by diminishing emotional arousals such as fear, stress, and physical agitation since they are associated with decreased performance, reduced success, and other avoidance behaviours.

#### 2.15 Bird's model on implementing entrepreneurial ideas

An alternative model of entrepreneurial intentions was proposed by Bird (1988). Based on established theory in cognitive psychology, the model suggests that an individual's entrepreneurial intention is based on a combination of personal and contextual factors. Personal factors include prior experience as an entrepreneur, personality characteristics and abilities while contextual factors consist of social, political and economic variables (Bird, 1988). An individual's intention is further structured by both rational or analytic thinking (goal-directed behaviour) and intuitive or holistic thinking (vision).

### 2.16 Theory of expectancy

According to Vroom's (1964)'s theory of expectancy which proposes that a person's behaviour is motivated by the expectation that his/her behaviour will lead to certain outcomes, together with the values she/he places on those outcomes. He situated his theory on the notion that behaviour is a function of interaction of personality and the environment. Vroom's theory is built on the concepts of valence, instrumentality and expectancy. Applying this to entrepreneurial intention, it is expected that the level at which individuals will engage in entrepreneurial innovative behaviour is dependent on how well they desire growth (valence), their perceived probability that their efforts will lead to achievement of their goal (their enterprise.

#### 2.17 Shapero's entrepreneurial event model (SEE)

Shapero's entrepreneurial event model (SEE) in which entrepreneurial intentions depend on three elements: a) the perception of the desirability; b) the

propensity to act; and c) the perception of feasibility (Shapero, 1982). Shapero's (1982) model of the entrepreneurial event was conceptually developed to identify the antecedents to entrepreneurial activity and provides one of the first comprehensive models of the entrepreneurial process. It includes both individual and situational factors and has prescriptive ability. The distinction of Shapero's model from Theory of Planned Behaviour is that it includes inertia as a concept as well as a "trigger event", or life changing event, which is necessary to break the individual from inertia's path. (Shapero & Sokol, 1982). Shapero and Sokol (1982) argue that intention is the indicator of choice for entrepreneurial activity. They further suggest that the individual's perception of desirability and feasibility of starting a business, coupled with propensity to act, are the immediate antecedents of entrepreneurial intentions. The perception of desirability encapsulates the attitude and subjective norm constructs in TPB. Each model considers the relevancy of self-efficacy through perceptions of feasibility and perceived behavioural control. Volitional control is acknowledged in SEE model through propensity to act as well as perceived behavioural control in TPB.

Shapero(1982) also suggests that the extent of part of exposure to entrepreneurship and an evaluation of the positive reminder of past experiences influence perceptions of desirability and feasibility. The perceived desirability of entrepreneurial activity is influenced by social forces of family and friends (Bird, 1988; Bygrave, 1997). Ajzen and Fishbein (1980) also provide support to this assertion by suggesting that attitudes that help form intentions are influenced by what people (that is, family, friends) who are important to the person forming the intention thinks. Perceived feasibility is defined as the degree which one believes he or she is personally capable of starting a business (Krueger, 1993). Perceptions of feasibility appear closely related to the construct of perceived self-efficacy (Ajzen, 1991) as theorised in Bandura's social learning theory.

# 2.18 Rationale for using Ajzen's theory of planned behaviour as the main theoretical framework for the study.

The Theory of Planned Behaviour (Ajzen, 1991) has been tested on a wide range of human behaviour. For example, Autio, Keeley, Klofsten, Parker, and Hay (2001) mention how Ajzen's TPB helped to explain how advertising campaigns should be structured. The theory stated here that providing information only does not change the behaviour of the receiver, the aim should be at changing the attitudes and perception towards a product. The Theory of Planned Behaviour (Ajzen, 1991) has been used in researches (Krueger et al., 2000; Kolvereid, 1996; Isaksen, 2006) to explain voting decisions, drinking problem, and weight loss, business startup intentions among students and growth intentions among entrepreneurs.

A number of authors (Shaver, Gartner, Crosby, Bakalarova & Gatewood, 200l; Krueger & Brazeal, 1994; Bird, 1988) argue that the entrepreneurial process is a planned and purposive act. This is in support of what was proposed earlier by Fishbein and Ajzen (1975) in their theory of reasoned action stating that behaviour is directly influenced by one's intention to engage in that behaviour and that intention are influenced by attitudes towards the behaviour. Ajzen's (1991) theory of planned behaviour identifies the behaviour's feasibility as an additional reason individuals form intentions to perform certain behaviours. Bandura's (1986) theory of selfefficacy similarly argues that behaviour is dependent upon an individual's perception that he/ she can actually carry out the intended action.

Ajzen (1991) argues that considered actions are preceded by conscious decisions to act in a certain way. He further theorizes that these intentions are the result of attitudes formulated through life experiences, personal characteristics and perceptions drawn from these prior experiences. He proposes that the three determinants of intention are as follows: 1) the subject's attitude toward a given behaviour, 2) subjective norms, that is, the subject's perception of other people's opinions of the proposed behaviour, and 3) the subject's perception of his or her control over the behaviour. The central factor in Ajzen's (1991) TPB is the individuals' intentions to perform a specific behaviour. Intentions are assumed to be the motivation to certain behaviour. Thus, the stronger the intention to perform certain behaviour, the more likely it will be performed.

Ajzen (1991) explains three factors, which are crucial in changing intention and actual behaviour. First of all, the belief and attitude somebody has toward the behaviour. A student could for instance have a positive attitude toward entrepreneurship because one of the parents is an entrepreneur. Other factors which may influence attitude in an entrepreneurial situation could also include willingness to take risks, locus of control, need for independence. The second is a social factor termed subjective norm. This factor refers to the social pressure from the environment on the individual to perform or not to perform the task for example, parents who encountered negative experiences with entrepreneurship, could put up pressure on their children not to start their own business. It is also possible that when there is social support from individuals who are respected within the graduate's context, he or she is likely to engage freely in entrepreneurship. The third factor influencing intention is the perceived behavioural control. This factor distinguishes the model from previous behavioural models. The idea is that the actual behaviour does not only depend on the motivation or intention to perform certain behaviour, but also on the perception of the difficulty of performing the behaviour. This could sometimes be referred to as self-efficacy which is an individual's belief to be able to succeed in a given task. This perception can be developed for instance through prior experience.

Several psychological characteristics have been proposed to influence entrepreneurial intention. The first attempt to study the willingness and drive of individuals to get engaged in entrepreneurial activities can be traced back to the psychological studies of Atkinson (1957) and McClelland (1961). In order to provide a better characterisation of entrepreneurs, McClelland (1961) introduces the need-forachievement concept. He argues that individuals with a high level of need-forachievement show higher willingness to engage in entrepreneurial activities. However, the concept of need-for achievement is not the only psychological dimension that scholars have studied in relation to entrepreneurial intention. In addition to that, the literature demonstrates that individuals' entrepreneurial intention is influenced by risk-taking propensity (Weber et al., 2002; Stewart and Roth, 2001), tolerance of ambiguity (Budner, 1982), locus of control (Evans & Leighton, 1989; Cromie & Johns, 1983), self-efficacy (Baum, Locke & Smith, 2001; Zhao, Seibert & Hills, 2005) and goal setting (Locke & Latham, 1990). While some of them have failed to predict entrepreneurship (Baum et al., 2001), two dimensions that consistently predict entrepreneurial intentions are self-efficacy (Zhao et al., 2005) and risk-taking propensity (Gomez-Meija & Balkin, 1989).

#### **Entrepreneurial Self-Efficacy and Entrepreneurial Intention**

Past research can be used to link entrepreneurial self-efficacy and entrepreneurial intentions. Hackett and Betz (1981) project that Bandura's (1977) theory of self-efficacy may be applied to determine the vocational inclinations of individuals. Empirical findings indicate that self-efficacy is highly involved in the career decision-making process. In fact, career self-efficacy was found to be the most important predictor of males' intentions to pursue careers in traditionally female occupations (Giles & Rea, 1999). In relation to entrepreneurship, individuals with high levels of entrepreneurial self-efficacy may also have strong occupational intentions for an entrepreneurial career. Bandura (1986) explains three aspects of generalised career development: (1) the formation of career-relevant interests, (2) selection of a career choice option (intentions), and (3) performance and persistence in the selected occupation.

Lent, Brown, & Hackett (1994) observe that self-efficacy is significantly related to career interests, career choice goals (intentions), and occupational performance. However, they also observe that self-efficacy is the sole mediator between a person's abilities and his or her career interests. These three findings taken together can be interpreted as meaning that self-efficacy may be used to predict the intended career-related intentions and behaviour of individuals. It has been established that self-efficacy is the major influence on career-related behaviour as observed in Bandura's (1986) social cognitive theory (Lent, et al, 1994).

Self-efficacy is the strong personal belief in skills and abilities to initiate a task and lead it to success (Bandura, 1997). According to Markham, Balkin, & Baron (2002), it is the perceptions of self-efficacy, rather than objective ability that motivate individuals to demonstrate entrepreneurial behaviour. The concept of self-efficacy reflects an individual's innermost thoughts on whether he/she has what is needed to successfully perform a certain task. Actual abilities only matter if a person has selfconfidence in those abilities, and also the self-confidence that he/she will be able to effectively convert those skills into a chosen outcome (Bandura, 1989, 1997).

Evidence suggests that general self-efficacy is central to most human functioning and is based more on what people believe than on what is objectively true (Markham, et al., 2002). Research in this area has consistently emphasised the importance of self-efficacy as a key factor in determining human agency (Bandura, 1989), and has shown that those with high self-efficacy for a certain task are more likely to pursue and persist in that task (Bandura, 1997). Self-efficacy has proved to be a remarkable predictor of opportunity perception (Krueger & Dickson, 1993) and entrepreneurial intent (Krueger, et al. 2000; Cox, Mueller & Moss, 2002; Zhao, et al. 2005). As such, high levels of self-efficacy serve as a potent motivational lever for entrepreneurial action. However, low levels often explain why a population subgroup differs greatly from another on career interest and intent. Among other things, Betz and Hackett (1983) report that gender differences in math self-efficacy more than explains the gender difference in career interest in science and engineering.

Overall, empirical evidence suggests that women are likely to have lower expectations for success in a wide range of occupations (Eccles, 1994). Using a younger sample, studies with U.S, teens have shown that, while females and males have comparable levels of self-confidence in aggregate, there are important gender differences in key areas. Specifically, girls have lower confidence levels than boys in areas related to math, finance, decision making and problem-solving (Marlino & Wilson, 2003). These gender differences are seen in areas that are stereotypically associated with "male" skills and also with business/entrepreneurial careers. Previous research suggests that adult women are more likely than men to limit their ultimate career choices because of their lack of confidence in relevant skills (Bandura, 1992), and that women in particular shun entrepreneurial endeavours because they think they lack the required skills (Wilson, Marlino, & Kickul, 2004; Chen, Green & Crick, 1998). Unlike other personality traits of entrepreneurship which are relatively static, self-efficacy is affected by contextual factors such as education and past experiences (Hollenbeck & Hall, 2004). Some researchers believe self-efficacy is similar to other personal traits such as locus of control, although they are different in some aspects. Locus of control' is the overall belief in ones power over the outcomes of actions, whereas self-efficacy is profound self-confidence in accomplishing specific tasks (Boyd & Vozikis, 1994). Moreover, self-efficacy is domain specific and varies across tasks and situations (Wilson, Kickul, & Marlino, 2007) and can also be generalised to other related tasks or performances (Chen, et al., 1998). More interestingly, selfefficacy is one of the core components of entrepreneurial intention models and mostly operationalised as feasibility, although there are some subtle technical differences between them (Segal, Borgia & Schoenfeld, 2005; Ajzen, 2002).

However, identifying specific entrepreneurial tasks is challenging since entrepreneurship is not a single task but rather a mix and sequence of tasks related to creating and growing a new business venture (De Noble, Jung, & Ehrlich., 1999; Mueller & Goic, 2003). While the Entrepreneurial Self-Efficacy (ESE) construct is quite promising, it remains empirically underdeveloped and many scholars have called for further refinement. (Forbes, 2005; Kolvereid & Isaksen, 2006). Three issues have been of particular interest in the study of ESE. First, there remains some debate on whether an ESE construct is even necessary. Several scholars (Chen, Gully, & Eden, 2004) advocate the use of a general measure of self-efficacy instead of a domain-specific ESE construct. Second, the dimensionality of the construct has to be fully established. While most scholars acknowledge the multi-dimensional nature of the ESE construct (Wilson et al., 2007; Zhao et al., 2005), very few researchers have explicitly examined the underlying dimensions that make up the actual construct by using some type of theoretical model of entrepreneurial activity and tasks. Moreover, several scholars have simply relied on single survey questions to capture an individual's level of ESE. Finally, few studies have included a sampling of nascent entrepreneurs, most of the initial studies of ESE relied on samples of university students or business owners (Chen, et al, 1998; De Noble, et al, 1999; Drnovsek & Glas, 2002; Mueller & Goic, 2003). Researchers advocate the use of a measure of General Self-Efficacy (GSE) because entrepreneurs require a diverse set of roles and skill sets; therefore, they believe it would simply be difficult to identify a comprehensive, yet parsimonious, list of specific tasks explicitly associated with entrepreneural activities (Markman, et al, 2002).

From a purely pragmatic perspective, it is easier to measure GSE than to explicitly capture the nuances of ESE. In any event, several empirical studies have measured self-efficacy by eliciting responses about an individual's confidence in various areas not specific to entrepreneurial activities (Baum & Locke, 2004; Baum et al., 2001; Utsch & Rauch, 2000).Bandura (1997), however, argues that self-efficacy should be focused on a specific context and activity domain. The more task specific one can make the measurement of self-efficacy, the better the predictive role efficacy is likely to play in research on the task-specific outcomes of interest (Bandura, 1997).

Gist (1987) suggests that researchers aggregate a number of related but domain specific measures rather than relying on a collection test. While a composite measure of self-efficacy would be arguably more convenient, a number of scholars have sacrificed convenience in favour of predictive power (Begley & Tan, 2001; Chen et al., 1998; De Noble et al., 1999; Forbes, 2005; Kolvereid & Isaksen, 2006). Boyd and Vozikis (1994) developed a revised model of Bird's (1988) entrepreneurial intentionality, which incorporates self-efficacy as an important variable in new venture creation. The revised model proposes that the higher the mastery experience through career experience or the higher social persuasion through interpersonal relationship will lead to positive development of entrepreneurial self-efficacy. In addition, Boyd and Vozikis (1994) propose that the higher the entrepreneurial selfefficacy, the higher the degree of goal setting and the stronger the goal commitment. This is because high self-efficacy leads people to set challenging goals and possess strong commitment to this goal(Wood & Bandura, 1989). Likewise, Chen, et al (1998), used two samples to test the relationship between entrepreneurial self-efficacy, internal locus of control, entrepreneurs and managers. The two samples included 140 university students and 1,252 small business entrepreneurs and executives. They observe that both students and business executives indicated a significant effect of entrepreneurial self-efficacy on the likelihood of becoming an entrepreneur. Individuals with higher entrepreneurial self-efficacy expressed a stronger intention to start their own businesses.

In De Noble et al.(1999), 115 undergraduate and 87 graduate samples, they showed that developing new products or market opportunities; building an innovative environment; initiating investor relationships; defining core purpose; coping with unexpected challenges and developing critical human resources were essential skills for entrepreneurial self-efficacy measure. The findings provide that measuring individuals' self-efficacy on those dimensions helps predict entrepreneurial intentions and actions.

A nagging unresolved issue regarding entrepreneurial self-efficacy is the problem of social desirability bias in self-assessments, because the notion of self-efficacy inherently involves people's judgments about their ability to perform given activities (Bandura, 1982), the use of self-reported survey evaluations make sense. Yet, in such circumstances, individuals may be tempted to inflate their ratings, that is, to impress study evaluators, among other reasons. Chen et al., (1998) note that the high inter-factor correlations among their component entrepreneurial self-efficacy scores may have been caused by social desirability response bias. They state that future researchers should think of ways to reduce social desirability.

DeNoble, Jung and Ehrlich (1999) showed that entrepreneurship students demonstrated significantly higher self-efficacy than their peers from nonentrepreneurial majors in the domains of developing new opportunities and coping with the unexpected. A growing body of research attests to the predictive power of entrepreneurial self-efficacy. However, researchers have also shown that the level of self-efficacy and its predictive power on entrepreneurial outcomes vary by gender. For example, women tend to report lower entrepreneurial self-efficacy and entrepreneurial intentions than men do (Gatewood, Shaver, Powers & Gartner, 2002).

36

Nonetheless, Wilson, et al (2007) observes that the effect of entrepreneurial selfefficacy on entrepreneurial intentions was stronger for women than for men.

#### **Risk-Taking Propensity and Entrepreneurial Intention**

Considerable researches have been undertaken in pursuit of the notion that a fundamental characteristic of the entrepreneur is his or her propensity to take risks (Brockhaus, 1982). Zhao, et al (2005) showed that psychological characteristics such as risk-taking propensity and entrepreneurial self-efficacy, in addition to developed skills and abilities, influence entrepreneurial intentions. In other words, entrepreneurs with strong self-efficacy may more likely engage in the risk-taking necessary for entrepreneurial success.

The usual interpretation of a risk-taker is someone who in the context of a business venture pursues a business idea when the probability of succeeding is low. Timmons et al, (1987) disagreed with this when they advocated that entrepreneurs take calculated risks. Hull, Bosley and Udell (1980) observe potential entrepreneurs to have a greater propensity to take risks. Their definition of an entrepreneur includes anyone who owned a business, assumed risk for the sake of profit and had the explicit intention of expanding the business. Brockhaus (1980) defines risk-taking propensity as the perceived probability of receiving rewards associated with the success of a situation that is required by the individual before he or she will subject himself/herself to the consequences associated with failure, the alternative situation providing less reward as well as less severe consequences than the proposed situation. Findings on the risk-taking propensity of entrepreneurs have basically been unconfirmed, inconclusive and inconsistent.

A likely explanation for the divergence in findings may lie in the methodologies applied in previous studies. For example, Begley and Boyd (1987) conducted a study in England with a sample of 239 members of a small business association to determine the difference in psychological characteristics of entrepreneurs and small business managers. Using a survey questionnaire to elicit respondent's perceptions, the researchers found significant differences between entrepreneur's risk-taking propensities as compared to small business managers.

Conversely, Sexton and Bowman (1982) found no significant difference in risk-taking behaviours between entrepreneurs and managers and therefore concluded that risk-taking propensity may distinguish entrepreneurs and managers. Nevertheless,

according to Sitkin and Weingart, (1995) individuals with high risk propensity tend to be more comfortable dealing with situations of risk and in fact perceive objectively same situation as less risky than do others. They are therefore likely to anticipate and experience less debilitating anxiety about an entrepreneurial career, perceive a greater sense of control over outcomes, judge the likelihood of receiving positive rewards more highly and thus possess higher self-efficacy.

Bygrave's (1989) several empirical studies suggest that small business' entrepreneurs do not have positive attitudes towards risk and they do not consider themselves as risk takers (Davidsson, 1989, Baron, 1998), nor do they seem to differ from other groups, in more objective tests on risk taking (Brockhaus, 1980). According to McClelland (1961) and Bellu (1988), entrepreneurs seem slightly less attracted to take risks in situations known as pure shift games. Entrepreneurs' risk taking may be specific or momentary (Berverland &Lockshin, 2001). Davidsson (1989) asserts that if the aspirations are sufficiently accomplished, the entrepreneurs may simply stop taking higher risks. However, risk taking and acceptance of uncertainty is something that can be slowly modified if desired (Carayannis, Evans & Hanson, 2003). Therefore, literature is not clear on the existence of a relationship between this variable and entrepreneurial intentions and it is also not clear on the type or nature of the relationship.

#### Social capital and Entrepreneurial Intention

Capital emphasises that social capital, like human or financial capital, is productive: It enables us to create value, get things done, achieve our goals, fulfil our missions in life, and make our contributions to the world. But saying that social capital is productive is an understatement, in that, it is likely or could be said that no one can be successful or even survive without it. But many people believe they should be able to get along without social capital; they make the mistake of going it alone as the prescription for success while others pretend to thrive without social capital, using it secretly as if it were improper or even unethical.

Literature identified individual domains (such as personality, motivation, and prior experience) and contextual variables (such as social context, markets, and economics) as the two dimensions responsible for the formation of entrepreneurial intentions (Bird, 1988). Social capital is made up of the relationships, either formal or informal, generated by individuals in their interaction with other individuals trying to

obtain an expected reward in the market. That is, social capital could be defined as capital captured in the form of social relationships (Lin, 2003). Social capital results from a process of investment in human relationships, which requires resources and, more specifically, time (Lin, 2003). Besides, social capital makes it easier to access information, reduce transaction costs by allowing the coordination of activities and, finally, facilitate collective decision-making (Grootaert & van Bastelaer, 2001). Also, as indicated above, it allows access to other forms of capital, such as human capital (Coleman, 1988). Likewise, social capital, the same as physical capital, may be accumulated with its use and also depreciated or destroyed (Svendsen & Svendsen, 2004).

The strength or weakness of the linkages of the individual or organisation with other individuals and organisations is an important element related to social capital (Granovetter, 1983). Both strong intra-community ties (among members of a family, an association or an ethnic group of immigrants) and weak inter-community ties are necessary to guarantee the efficacy of social capital (Woolcock & Narayan, 2000). On the other hand, social capital has a multidimensional level (Grootaert & van Bastelaer, 2001). First, the macro or social level focuses on the potential benefits for the society of individuals' and organisations' social networks, such as improved income levels (Fukuyama, 1995; Knack & Keefer 1997; Dakhli & de Clercq, 2004). Second, the micro or individual level focuses on the potential benefits of network relations for the person, such as the entrepreneurial start-up or firm success (Lin 2003; Davidsson & Honig, 2003). Finally, the meso or organisation, such as a higher efficiency (Putnam, 1993).

Nevertheless, at the micro, meso and macro levels, the benefits obtained from both bonding and bridging social capital is derived, from two other types of social capital: structural and cognitive (Uphoff, 2000; Grootaert & van Bastelaer, 2001). On the one hand, cognitive social capital is derived from mental processes and resulting ideas, reinforced by culture and ideology, generating shared norms, values, attitudes, beliefs, and trust. Thus, cognitive social capital has a subjective and intangible character, contributing to cooperative behaviour and stimulating collective action. On the other hand, structural social capital is related to several forms of social organisation particularly rules, procedures and formal social networks, which also contribute to cooperation and, especially, to a collective action to obtain mutual benefits. Network analysts argue that entrepreneurship is a consequence of taking the opportunity to be between others (Burt, 1992). More generally, Aldrich (1999) demonstrates that social ties, in terms of their heterogeneity and emotional strength, play an important role in many facets of entrepreneurial activities.

Several studies report that social capital contributes significantly to resource acquisition of entrepreneurs and of new ventures (Birley 1985; Honig, 1998; Baron & Markman, 2002). Jarillo (1989) discusses similarly about networking as a system by which entrepreneurs can tap resources that are external to them, that is, which they do not control. Baron and Markman (2000) make a profound statement that social capital – especially social skills – make significant difference in entrepreneurial success. They argue that high level of social capital, built on a favourable reputation, relevant previous experience, and direct personal contacts, often assist entrepreneurs in gaining access to venture capitalists, potential customers, and others. They also suggest that social skills can be trained and thus contribute to social capital.

# Locus of control and Entrepreneurial Intention

Locus of control is the degree in which the individual believes that the reinforcements are dependent on his/her behaviour. This individual believes that the accomplishment of a goal or purpose depends on his own ability and actions rather than luck or other people's efforts (Kuip & Verheul, 2003). Empirical evidence shows that small businesses entrepreneurs are more oriented at the internal level, than population in general (Kets Vries, 1977; Begley & Boyd, 1987; Beverland & Lockshin, 2001). Brockhaus' (1980) longitudinal study suggests the existence of a positive correlation between orientation to locus of control and entrepreneurial success.

Brockhaus and Horwitz (1986) reinforce that locus of control could distinguish entrepreneurs who are successful from those who are unsuccessful. Robinson et al (1991) state that internal control leads to a positive entrepreneurial attitude and most students who receive entrepreneurial formation may develop a high level of control and self-efficiency. Individuals with internal locus of control are those who believe they can control what happens in their lives. On the other hand, people with external locus of control tend to believe that most of the events in their lives result from luck, being in the right place at the right time, and the behaviours of powerful people. Boone, DeBrabander, and Van Witteloostuijns' (1996) empirical research investigation focused on the furniture industry with a sample comprised of small firms and family-owned small businesses (homogeneous population). They were interested in knowing if chief executive officers or top management team internality had a positive effect on organisational outcomes. Replicating previously tested hypotheses, they found internal locus of control to be associated with company performance. Their findings corroborated prior study findings of Nwachukwu, 1995; Begley & Boyd, 1986, 1987; Bonnett & Furnham, 1991 who stated that internal locus of control is an important entrepreneurial personality trait. In a longitudinal study of students, Hull et al (1980) observe that locus of control did not differentiate between students who went on to work in managerial positions and those who started their own business.

#### Emotional intelligence and entrepreneurial intention

Emotional intelligence describes an ability, capacity, or skill to perceive, assess, and manage the emotions of one's self, of others, and of groups (Mayer & Salovey, 1997). EI has been studied since the early 1990s, but only in recent years has it entered the mainstream media and the modern workforce. The original work by Salovey and Mayer (1990) provided a definition of emotional intelligence as the ability to monitor one's own and other's feeling and emotions, to discriminate among them, and to use this information to guide one's thinking and action. Goleman (1995), on the other hand, defines emotional intelligence as comprising emotional awareness, emotional management, motivation, empathy and social skills. Mayer and Salovey's (1997) model of emotional intelligence comprises four iterative dimensions: (a) emotional awareness, being aware of own and others emotions, (b) facilitating emotion, using emotions to direct thought, (c) understanding emotion, or knowledge about behavioural responses to emotion, and (d) managing emotions in self and in others to enhance personal growth and relationships. Importantly, Mayer and Salovey do not see motivation as a factor of emotional intelligence. The link between emotions and motivation has been explicitly stated in a broad range of research (Christie, Jordan, Troth & Lawrence, 2007).

An important factor that may impact the emotional intelligence is the risk preference. The trait conceptualisation of emotional intelligence as a behavioural tendency has been reported to overlap with personality traits (Bedwell, 2003; Ciarrochi et al., 2000; Dawda, & Hart, 2000). Consequently, Newsome, Day and

Catano (2000) reported significant positive relationships between major personality traits and factors of emotional intelligence. The role of emotional intelligence in managerial effectiveness has also been investigated in several studies (Sitarenios, 2001; Sipsma, 2000; Jae, 1997) but studies about personality characteristics and emotional intelligence as predictors of entrepreneurial intentions are rather few. Individuals with high emotional intelligence may use buffering techniques to internally encapsulate and segregate emotions so that they do not interfere with task performance. Because individuals with well-developed emotional intelligence are able to identify and control their own emotions and those of others, they are less likely to be paralysed by fear, hijacked by negative emotions, and strangled by anxiety, all of which have negative effects on both individual and team performance (Seipp, 1991).

#### **Creativity and Entrepreneurial Intention**

Creativity and entrepreneurship, like innovation, have been recognized as important contributors to a nation's economic growth. Infact, it has been described by Antonities, (2003) as a globally inevitable variable in the history of an entrepreneur Creativity plays an important role in the fuzzy front end of a firm's innovation process and also in corporate venturing processes, but the relationship between creativity and entrepreneurship to a large extent has not explicitly been examined. Research into notions of creativity and entrepreneurship has often originated from different worldviews and disciplines, such as psychology (Guildford, 1950; Sternberg, 1995) and economics (Schumpeter, 1998) and has been influenced by opposing views and contrasting understandings. However potential linkages between creativity and entrepreneurship have not been explicitly investigated. Both notions are independently thought to be productive and both fields have been the focus of government programs in many countries as they are considered to contribute and stimulate economic growth (Department of Trade and Industry DTI, 2005).

Each of the notions of creativity and entrepreneurship has multiple contested definitions and distinct ongoing programs of research. Early research on creativity focused on the characteristics or traits of individuals (Kirton, 1976; Koestler 1969) and further development of individual profiles added extra dimensions over time (Puccio, Murdock, & Mance, 2007; Basadur, 2004; Sternberg, 1995). Some of the common attributes of creativity and entrepreneurship are found in the agency of the individual or group which produces novelty and value. Creativity concerns the

creation of novelty and value. Entrepreneurship is concerned with novelty in business, new business ideas and the reality of achieving positive returns in market and in existing and new business models. Both creativity and entrepreneurship have followed similar trajectories in terms of the focus on the person and the process.

Some of the common attributes of creativity and entrepreneurship are found in the agency of the individual or group which produces novelty and value in both creativity and entrepreneurship. The creation of something new may sometimes include finding opportunities in existing fields, establishing new fields or new market opportunities. Zampetakis and Moustakis (2006) observe that engineering students' creative self-perception may predict increased levels of entrepreneurial intent, implying that the tie between creativity and entrepreneurial intentions may be closer than is currently thought. Therefore, this study will attempt to fill the gap in establishing a relationship between creativity and entrepreneurial intentions in order to enhance confidence in the generalisation of the findings of Zampetakis and Moustakis (2006).

#### Gender stereotype and entrepreneurial intention

Males express higher levels of entrepreneurial self-efficacy than females. To capture the talents of women in future new venture creation, a vibrant pipeline of potential entrepreneurs is required. However, previous research has shown that this pipeline may be weak. Although many potential factors may contribute including access to capital, previous research has shown that entrepreneurial self-efficacy that is; the self-confidence that one has the necessary skills to succeed in creating a business plays an important positive role in determining level of interest in pursuing an entrepreneurial career among young people (Kickul, Wilson & Marlino, 2004). Previous research suggests adult women are more likely to shun entrepreneurial endeavours and to limit their ultimate career choices because of a lack of confidence in relevant skills (Chen et al., 1998; Bandura, 1992).

Increasing entrepreneurial self-efficacy is therefore likely to be an important mechanism for improving both the intentions and participation rates of women in entrepreneurial activities. In examining gender differences, empirical evidence suggests that women are likely to have lower expectations for success in a wide range of occupations (Eccles, 1994) than men, particularly in careers that have been seen in

the past as non-traditional for women (Bandura, Barbaranelli, Caprara & Pastorelli 2001; Scherer et al, 1990; Betz & Hackett, 1981).

Studies of US teens have shown that females have lower confidence levels than males in areas related to mathematics, finance, decision making, and problem solving (Marlino & Wilson, 2003). There is also significant evidence to suggest women limit their career aspirations and interests because they believe they lack the necessary capabilities (Bandura, 1992). Specifically, the effects of self-efficacy on career choice have been studied with respect to the pursuit of entrepreneurial activity (Markman et al., 2002).

Research has shown compelling and consistent patterns, indicating individuals with high entrepreneurial self-efficacy have higher entrepreneurial intention (Segal, et al., 2002; Wang, Wong & Lu., 2002; Krueger, et al., 2000; DeNoble, et al., 1999;Chen et al., 1998; Scott & Twomey, 1988). However, there has been little research that examines the interactions between entrepreneurial self-efficacy, entrepreneurial intentions, and gender.

However, there has been research that examines the interactions between entrepreneurial self-efficacy, entrepreneurial intentions, and gender. Preliminary evidence indicates females have both lower entrepreneurial self-efficacy and lower entrepreneurial intentions than men (Chen et al., 1998; Chowdhury & Endres, 2005; Gatewood et al., 2002; Kourilsky & Walstad, 1998). Further, females may focus more on perceived skill deficiencies in the entrepreneurial realm. Kickul, et al. (2004) demonstrated a direct relationship between self-efficacy and intentions in girls, and highlighted the significance of girls' self-efficacy on their entrepreneurial aspirations. Additionally, a global study of adult women's entrepreneurial activity has shown the importance of self-efficacy as a factor in influencing actual entrepreneurial participation, an effect independent of other contextual variables (Minniti, Arenius & Langowitz., 2005).

Various intention models have been developed in previous research. As indicated by Peterman and Kennedy (2003). Most models of entrepreneurial intention focus on the pre-entrepreneurial event and make use of attitude and behaviour theory (Ajzen, 1991), and self-efficacy and social learning theory (Bandura, 1997). Many theorists are beginning to explain entrepreneurial intentions as a variable within larger psychological models. For example, Davidsson (1995) developed the economic-psychological model of factors influencing individuals' intentions to start a new

business. Autio, Keeley, Klofsten and Ulfstedt (1997) tested this model with a group of university students and found out that intentional elements, such as expectations, attention and belief appear to have a strong impact on our behaviour. Various other models of entrepreneurial intent have been developed as well.

Shapero (1975) developed a model which was tested by Krueger (1993), on the influence of desirability and feasibility to a business start-up. Bird (1988) suggests a model of intentional action, in which she observes that most intention-based models contain at least one of the following two dimensions: First of all, entrepreneurial intention models frequently contain elements of rationality versus intuition. On the one hand, entrepreneurs base their decisions with rational, analytic, and cause-andeffect-oriented processes and on the other hand, intuitive, holistic and contextual thinking influences entrepreneurs' intentions and consecutive actions. Entrepreneurs have a vision about their venture, a feeling that their venture will succeed. The entrepreneurs' vision is often based on this intuitive thinking. Second, intention models include a dimension of location. The internal locus is the entrepreneurs' intention while the external locus can be the market environment, governmental regulations, recently Lüthje and Franke (2003) proposed a structural model of entrepreneurial intent. Shook, Priem, and McGee (2003) stressed the need for an empirical validation of Bird's (1988) model of implementing entrepreneurial ideas.

# Field of study and entrepreneurial intention

A number of studies especially in developed countries like the united states of America have addressed entrepreneurial intentions on college campuses, majority of these studies focus on predicting entrepreneurial behaviour among business school students and this may be appropriate for several reasons. First, college or university students are influenced to choose a major in part by their interest in a subject, their perception of availability of jobs, their aptitude for the subject, and the earnings potential related to a major (Mauldin,Grain & Mounce, 2000; Pritchard, et al, 2004), so it seems reasonable that someone with entrepreneurial aspirations might select a business major. Again, majority of entrepreneurship courses in U.S. universities are offered through business programme (Streeter, Jaquette & Hovis, 2002). According to the Global Entrepreneurship Monitor (Minniti & Bygrave, 2003), people with professional, technological, or business degrees exhibit the highest incidence of entrepreneurial activity (17.8% of business school graduates compared to 12.8% for all college graduates). While examining the entrepreneurial intentions of business majors in the university is good, it is also noteworthy to know that non-business majors also demonstrate significant interest in self-employment.

Entrepreneurship education through the traditional university based business school route has been argued to have an enabling and accelerating impact on the activities of graduates already considering establishing businesses (Deakins, 2000; Galloway & Brown, 2002; Luthje & Franke, 2002). In many instances, however, the value of these arguments is questionable as they do not show actual entrepreneurial outcomes but are often based on surveys of future intentions at course exit (Galloway and Brown, 2002); Mitchell and McKeon (2004). Universities are beginning to embrace the notion of recognising and developing enterprising behaviour within nonbusiness disciplines and are introducing subjects on entrepreneurship into engineering, bioscience, law and music courses (Meyer, 2001; Mitchell and McKeon, 2004; Keogh and Galloway, 2004). It is worthy of note little has been done on this variable in Nigeria.

An innovative approach to education in biotechnology entrepreneurship has been implemented by the Science Faculty at the Queensland University of Technology. The Bachelor of Biotechnology Innovation (BBI) was designed in accordance with the philosophies of the Australian Federal Government's policies on innovation (BAA, 2001, 2003) and the Queensland Government's Smart State Initiative (QLD, 2003) as it aims to produce graduates who can drive commercialisation of research outcomes. The course seeks to train biotechnology entrepreneurs who could be business-savvy scientists or could operate in the gulf, that is, the commercial world between laboratory bench and global market place or could start their own companies to bring their own products to the market place. All of these potential roles serve to develop and strengthen the local biotechnology industry.

Hermansen-Kobulnicky and Moss (2004) examined the relationship between entrepreneurial orientation and interest in small business ownership of pharmacy students, and found that students who considered business ownership scored significantly higher on dimensions of entrepreneurial orientation than those who did not. Some argue that entrepreneurial experiences can develop entrepreneurial tendencies in individuals (Faris, 1999); Gatewood, Shaver and Gartner (1995) contends that individuals who elect an entrepreneurial career path are predisposed toward entrepreneurial orientation. Another survey of MBA students was conducted at a large D.S college; it concluded that the number of management courses the students had taken, were positively related to entrepreneurial intention (Chen et al, 1998). Further, between students in other Business and Economies majors, and Small Business students, Sagic and Elizur (1999) observe that the latter have a higher need for achievement which in turn has a positive effect on their preparedness to found a company.

# 2.19 Research Questions

- 1. What is the composite significant effect of the selected factors (entrepreneurial self-efficacy, risk-taking propensity, social capital, locus of control, emotional intelligence, creativity, gender stereotype and field of study/ discipline) and entrepreneurial intention?
- 2. What are the relative contributions of each of the independent variable to the prediction of entrepreneurial intention?
- 3. What is the most meaningful causal model for explaining entrepreneurial intention of undergraduates?
- 4. Are there significant differences between the hypothesised models and the reproduced causal models in relation to entrepreneurial intention of undergraduates?
- 5. What proportion (in percentages) of the total effect of the psychosocial factors is direct or indirect on entrepreneurial Intention?
- 6. What are the significant pathways indicating direct and indirect effects of independent variables on entrepreneurial intention?

# **CHAPTER THREE**

# METHODOLOGY

This chapter focused on the research design, population, sample and sampling procedure, instruments, procedures for data administration and data analysis.

# 3.1 Research Design

This study adopted a survey design of ex-post facto type. Kerlinger and Lee (2000) described the ex-post facto research design as a systematic empirical inquiry in which the researcher does not have direct control on the independent variables because their manifestations had already occurred. This connotes that the researcher usually has no control over the variables under study and therefore, cannot manipulate them. The study will investigate how entrepreneurial self-efficacy, risk-taking propensity, social capital, locus of control, emotional intelligence , creativity, gender stereotype and field of study/ discipline will correlate with entrepreneurial intention of undergraduate students in Southwest Nigeria.

Independent Variables	Dependent Variable		
Entrepreneurial self-efficacy			
Risk-taking propensity			
Social capital			
Locus of control			
Emotional intelligence	Entrepreneurial intention		
Creativity			
Gender Stereotype			
Field of study/ Discipline			

# Table 3.1: Independent and Dependent variables

Table 3.1 shows the independent variables (entrepreneurial self-efficacy, risktaking propensity, social capital, locus of control, emotional intelligence, creativity, gender stereotype and field of study/ discipline) and the dependent variable (Entrepreneurial intention)

#### **3.2** Population of the study

The target population is undergraduate students from federal and state universities in Southwestern, Nigeria. These states are: Lagos, Ogun, Oyo, Ondo, Osun and Ekiti.

## 3.3 Sample and Sampling Technique

A total of eight universities out of the fourteen universities in Southwest, Nigeria were selected for this study. The selection process were based on the exclusion criterion, which exempted all universities lesser than five years from their year of creation/ take off from the study. All the faculties/ Colleges in each of the selected universities were sampled for equal opportunity of participation. The stratified random sampling technique was used in order to select the participants for the study. A total of 250 copies of questionnaires were administered to each university to elicit information from 2000 respondents but only 1779 undergraduates filled the questionnaires and returned them, making a retrieval of 88.9 per cent.

S/N	Name of University	State
1	Adekunle Ajasin University	Akungba, Ondo State
2	Federal University of Technology	Akure, Ondo State
3	University of Ibadan	Ibadan, Oyo State
4	University of Lagos Akoka, Lagos State	
5	Olabisi Onabanjo University Ago-Iwoye, Ogun State	
6	Tai Solarin University of Education       Ijebu-Ode, Ogun State	
7	Federal University of Agriculture	Abeokuta, Ogun State
8	Ekiti State University	Ado-Ekiti, Ekiti State
9	Osun State University	Osogbo, Osun State
10	Obafemi Awolowo University	Ile- Ife, Osun State
11	Ladoke Akintola University of	Ogbomoso, Oyo State
	Technology	
12	Lagos State University	Ojo, Lagos State
13	National Open University	Lagos, Lagos State
14	University of Education	Ikere- Ekiti, Ekiti State

# Table 3.2: Federal and State Universities in Southwestern, Nigeria

The Table 3.1 shows the federal and state Universities in South-western, Nigeria.

# Table 3.3: Selected Federal and State Universities in Southwestern, Nigeria

S/N	NAME OF UNIVERSITY	STATE
1	Adekunle Ajasin University	Akungba, Ondo State
2	Federal University of Technology	Akure, Ondo State
3	University of Ibadan	Ibadan, Oyo State
4	University of Lagos	Akoka, Lagos State
5	Olabisi Onabanjo University	Ago-Iwoye, Ogun State
6	Tai Solarin University of Education	Ijebu-Ode, Ogun State
7	Federal University of Agriculture	Abeokuta, Ogun State
8	Ekiti State University	Ado-Ekiti, Ekiti State

Table 3.3 above shows the various federal and state universities selected for the study in Southwestern Nigeria, consisting of four federal and four state universities.

S/N	Name of School	No. of Questionnaires administered	No retrieved back	%
1	Federal University of	250	231	92.4
	Technology, Akure			
2	Adekunle Ajasin University	250	225	90.0
3	University of Ado-Ekiti	250	224	89.6
4	University of Ibadan	250	169	67.6
5	University of Lagos	250	245	98.0
6	University of Agriculture, Abeokuta	250	204	81.6
7	Tai Solarin University of Education	250	231	92.4
8	Olabisi Onabanjo University, Ago-Iwoye	250	250	100.0
	Total	2000	1779	88.9

 Table 3.4: Distribution of copies of questionnaires by institution

Table 3.4 shows the distribution of 2000 copies of questionnaires in the selected Universities.

S/N	University	Faculty/ College
		Arts
		Business Administration
		Education
		Engineering
1	University of Lagos	Science
		Social Sciences
		Pharmacy
		Law
		Environmental Sciences
		College of Medicine
		Agriculture and Forestry
		Arts
		Education
		Law
		Pharmacy
		Sciences
2.	University of Ibadan	Social Sciences
2.		Technology
		Veterinary Medicine
		Public Health
		Basic Medical Sciences
		Clinical Sciences
		Dentistry
	Olabisi Onabanjo University	Clinical Sc.(Medicine)
		Arts
		Engineering
		Pharmacy
3		Agriculture
5		Law
		Social & Management Sc.
		Sciences
		Basic Medical Sc.
		Education
4	Tai Solarin University of Education	Applied Education & Vocational Technology
		Science & Instructional Technology
		Social & Management Sciences
		Humanities
5	Federal University of	Food Sciences & Human Ecology

# Table 3.5:Selected Faculties / Colleges in Federal and State Universities in<br/>Southwestern, Nigeria

	Agriculture	Agricultural Management & Rural development
		Animal Science & Livestock Studies
		Environmental Resources Management
		Natural Sciences
		Plant Science & Crop Production
		Engineering
		Veterinary Medicine
		Arts
		Agricultural Sciences
	Ekiti State University	Education
6		Law
		Management Science
		Science
		Engineering
		Social Science
		Sciences
7	Adekunle Ajasin	Arts & Education
		Law
		Social & Management Sciences
8	Federal University of Technology	Agriculture & Agricultural Technology
		Earth & Mineral Sciences
		Engineering & Engineering
		Environmental Technology
		Sciences

\* Obtained from the websites of the various Universities

Table 3.5 shows the faculties/ colleges that exist in each of the sampled university. All faculties had the opportunity of equal participation considering the sampling technique that was used. The researcher obtained the total number of final year students in each of the faculty/ colleges from the records department of these universities before administering the questionnaires to the respondents.

# **3.4** Research Instruments

The main instrument for this study is the questionnaire tagged "Students Entrepreneurial Intention Assessment Survey (SEIAS)" with two parts. The first section is designed to obtain demographic information of the respondents. These include: age, gender, field of study / discipline and level of study. The second part of the questionnaire is divided into eight sections:

1. Entrepreneurial Self-efficacy Scale (ESES).

- 2. Risk Style Scale (RSS).
- 3. Multidimensional Perceived Social Support Scale (MPSSS).
- 4. Rotter's (1966) Internal-External Locus of Control Scale.
- 5. Emotional Intelligence Scale (EIS).
- 6. Creative Personality Scale (CPS).
- 7. Bem's Sex Role Inventory.
- 8. Entrepreneurial Intention Questionnaire (EIQ).

# **Entrepreneurial Self-efficacy Scale (ESES)**

Entrepreneurial Self-Efficacy Scale (ESES) is used to measure the entrepreneurial self-efficacy of the undergraduate students. The ESES was developed by DeNoble et al.,(1999). This scale consists of 15 items measuring individual's abilities in performing entrepreneurial tasks with each item measured on a 5 point Likert scale ranging from strongly disagree (1) to strongly agree (5). Examples of items on the scale include: I can identify potential capital sources for a venture and; I can develop relationships with people who connect to sources of funds. An overall item—Do you have necessary abilities (knowledge, skill and experience) to start a new business? was also be added independently to this list. The 16<sup>th</sup> item is answered 1= none of the abilities to 5= all necessary ability format. Cronbach alpha of 0.87 was obtained by DeNoble et al. (1999). A pilot testing was conducted using 25 final year students from a university not covered in the present study and a Cronbach alpha of 0.67 was obtained, affirming the suitability of this scale in Nigeria context.

#### **Risk Style Scale (RSS)**

It consists of a measure of risk-taking propensity assessed using the Risk Style Scale (RSS) derived from Forliani and Mullins (2000). This measure is designed to capture respondents' personal propensity towards financial risk taking. The scale consists of seven items measuring individual's abilities in performing entrepreneurial tasks with each item measured on a 5- point Likert scale ranging from strongly disagree to strongly agree. Examples of items on the scale include: The overall risk of the business is high and the founder or entrepreneur stands to lose a lot financially. A pilot study was also conducted to ascertain the suitability of the scale. An alpha value of 0.78 was obtained by the researcher for this scale.

#### Multidimensional Perceived Social Support Scale (MPSSS)

Social capital in form of social support was assessed with the Multidimensional Perceived Social Support Scale (MPSSS) developed by Zimet, Dahlem, Zimet & Farley (1988). The MPSSS is a 12-item scale employing a 5-point Likert-type format from 1 = strongly disagree to 5 = strongly agree). The items were divided into factor groups relating to the source of social support, namely family (Fam), friends (Fri) or significant other (SO). Coefficient alphas for the subscales ranged from 0.85 to 0.91 and test-retest correlations ranged from 0.75 to 0.85. Examples of items on the scale include: I get the emotional help and support I need from my family (Fam), I can count on my friends when things go wrong (Fri) and There is a special person who is around when I am in need (SO). A coefficient alpha

# Rotter's (1966) Internal-External Locus of Control Scale

This scale assessed the Locus of control of undergraduate students using a modified version of Rotter's (1966) internal-external locus of control scale. The original scale had 26 items with two options each. The instrument has two alternatives; therefore a high score will indicate an external locus of control while a low score will indicate an internal locus of control. Rotter's (1966) reports split-half reliabilities of 0.65 for males and 0.79 for females and Kuder-Richardson coefficient within the range 0.69 to .76. Eso (1998) and Igwe (1991) observes a reliability coefficient that ranged from 0.64 to 0.92. The researcher will score the scale manually, since it has only one alternative for each item, a correct answer will be scored as 1 while a wrong answer will be scored zero. Examples of items on the scale include: many of the unhappy things that happen to people in life are already predestined; life has been unfair to me. The Cronbach value obtained from this study is 0.63.

#### **Emotional Intelligence Scale (EIS)**

The Emotional Intelligence Scale (EIS) developed by Schutte, et al (1998) was employed to determine emotional intelligence, based on self- report responses to items showing the appraisal and expression of emotions in self and others, regulations of emotions in self and others and the utilisation of emotions in solving problems. The scale has 33 items which will be measured on a 5- point Likert scale which ranged from strongly disagree to strongly agree. The EIS has been found to demonstrate a high internal consistency of Cronbach Alpha 0.87 to 0.90 and a two-week test-retest reliability coefficient of 0.78 (Schutte et., al 1998). The EIS has also been used variously by Adeyemo (2005), Adeyemo and Ogunyemi, (2005) and Aremu (2005) and they found it to be very reliable in their respective studies. Reversed scoring will be done for the negative emotions. Examples of items on the scale are: I know when to speak about my personal problems and emotions are one of the things that make my life worth living. A Cronbach alpha of 0.90 was obtained indicating the suitability via a pilot study of final year students from a university not included in the present study.

#### **Creative Personality Scale (CPS)**

The 30-item Creative Personality Scale (CPS) of Gough (1979) of the Adjective Check List (Gough & Heilbrun, 1965) measured undergraduates' creativity-relevant personal characteristics. They were asked to place a check mark next to each adjective that best describes them, of the 30 adjectives, 18 described highly creative People while the remaining 12 described less creative people. Examples of items on the scale includes: capable, clever, confident, egoistical, inventive, original (creative); cautious, commonplace, conservative, conventional, dissatisfied, suspicious (less creative people) honest, narrow interests. Each of these checked creative adjectives will be given a value of+1 while the less creative adjectives will be assigned a value of - 1. The reliability CPS index of 0.70 was obtained for this scale and reliability value of 0.77 was also obtained by the researcher in order to determine if it is appropriate for this study.

#### **Bems Sex Role Inventory**

Bems Sex Role Inventory (1974) is designed to determine the genderstereotype. Cronbach alpha score of 0.88 for masculinity and 0.83 for femininity were obtained by Bem (ibid.). A median split method was used to divide respondents into one of four gender-role orientation categories: masculine, androgynous, feminine and undifferentiated on the scale. The mean masculinity and femininity scores obtained were 4.43 and 4.02 respectively. Respondents with a masculinity score above 4.43 and a femininity score above 4.02 were categorised as androgynous (N= D 45). Respondents with a masculinity score below 4.02 were categorised as masculine (N= D 56). Respondents with a masculinity score below 4.43 and a femininity score above 4.02 were categorised as feminine (N= D 62). Respondents with a masculinity score below 4.43 and a femininity score below 4.02 were categorized as undifferentiated (N= D 44). A Cronbach alpha of 0.66 for the feminity and 0.75 for the masculinity were obtained to ascertain the suitability of the scale by the researcher after a pilot study was carried out.

#### **Entrepreneurial Intention Questionnaire (EIQ)**

Entrepreneurial Intention Questionnaire (EIQ) will measure the undergraduate students' intentions to create new venture after graduation. A set of questions proposed by Liñan (2005) will be used. This instrument consists of six items aimed at unveiling the respondents' intentions to start their own businesses in the future. The items are built on a seven-point Likert scales which ranged from 1 as strongly disagree to 5 as strongly agree. Sample items on the scale include I am ready to do anything to be an entrepreneur and I have the firm intention to start a company some day. The internal consistency of 0.95 was obtained by Liñan (2005) for the Spanish version of the instrument. The researcher obtained an alpha value of 0.78 for the scale underscoring its adaptability and suitability for the present study.

# 3.5 Procedure for administration of instruments

The procedure for administering the questionnaires was done in the following ways: first, the researcher visited the selected universities to obtain the statistics of the final year students in each department. Second, she trained the research assistants who helped in the collection of data. The next stage was the distribution of the instruments on the various university campuses. The final stage was the collection of completed instruments from the campuses.

#### Table 3.6: Sex distribution of the Respondents

Sex	Frequency	Percentage
Male	909	51.1
Female	870	48.9
Total	1779	100

Table 3.6 showed that of the 1779 respondents, 909 (51.1%) were male undergraduate students while 870 (48.9%) were female.

# 3.6 Data Analysis

Path analysis procedure was applied to the data. Path analysis assisted in identifying the total effects (direct and indirect) of the independent variables (entrepreneurial self-efficacy, risk-taking propensity, social capital, locus of control, emotional intelligence, creativity, gender stereotype, and field of study / discipline) on the dependent variable (entrepreneurial intention). This also assisted the researcher in selecting those variables which are likely or plausible determinants (causes) of the effects. Causal modelling according to Blalock (1964) is a technique for selecting variables that are perceived to be determinants of the effects made by each cause or predictor variable through the application of path analysis technique. This is subject to the following assumptions of the recursive system (Kerlinger & Pedhazzur, 1973).

- i. There is no reciprocal causation between the variables
- ii. The residual are uncorrelated with variables preceding them in the model and among themselves; and
- iii. Each of the endogenous or dependent variable is directly related to all the variables preceding it in the hypothesised causal sequence.

The construction of the hypothesised causal model is subject to sound theory, information from previous research and temporal order as opined by Blalock (1964), Duncan (1966) and Bryant and Doran (1977). Multiple regression will be used to analyse the hypothesis in this study.

**Causal Modelling based on Temporal Order**: When a variable is assumed or known to be causally related to another and one occurs before the other the latter variable (the one that occurred last) will be a function of the former and not the other way round. For instance, in this study, gender stereotype will influence the risk-taking propensity and not the other way round.

**Causal Modelling based on Sound Theory:** A particular causal order testable by the researcher can be hypothesised. Therefore, one can conveniently state that the sociopsychological factors are bound to influence the entrepreneurial intentions of undergraduate students. Experience has shown that the school or academic environment will influence the attitude of an individual with respect to certain behaviours. This is why it is theorised that the particular field of study which a student is exposed to may influence his/her entrepreneurial intention. **Causal Modelling Based on Previous Research:** It is essential that a meaningful causal order among any number of researchable variables be based on an extensive review of previous research findings on the variables. In this study, some of the variables that were hypothesised to be investigated through confirmatory parsimonious models are presented in the figures as follows:

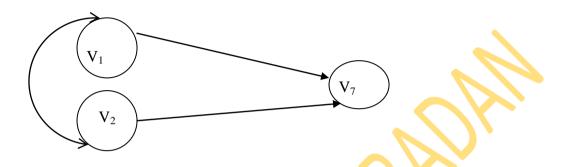
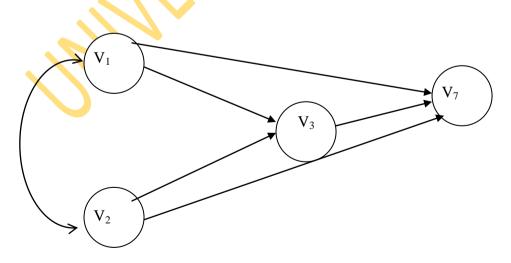


Figure 3.1 - Hypothesised Causal Linkages of Variables  $V_1$  (gender stereotype),  $V_2$  (field of study) and  $V_7$  (risk-taking propensity).

The linkages among variables  $V_1$ ,  $V_2$  and  $V_7$  as shown in figure 3.1, available from research indicate that  $V_7$  is influenced and caused by 1 and 2. Gender stereotype has significant impact on the risk-taking propensity of individuals (Byrnes, Miller & Schafer, 1999). Further, Arch (1993); Eckel and Grossman (2002) explain this phenomenon by claiming that males are more likely to see a risky situation as a challenge that calls for participation while females tend to respond to such situations as threats that encourage avoidance.



**Figure 3.2: Hypothesized Causal Linkages of Variables V**<sub>1</sub> (gender stereotype), V<sub>2</sub> (field or discipline of study), V<sub>3</sub> (emotional intelligence), V<sub>7</sub> (risk-taking propensity)

Figure 3.2 shows the relationship among the variables (gender stereotype, field or discipline of study and emotional intelligence and risk-taking propensity). It might be logical to say that  $V_1$ ,  $V_2$  and  $V_3$  are related to  $V_7$ .  $V_7$  is a function of  $V_1$ ,  $V_2$ ,  $V_3$  (gender stereotype, field or discipline of study and emotional intelligence are related to risk-taking propensity). If girls are on average more risk averse than boys, as empirical evidence (Booth & Nolen,2009) suggests, it is logically proper to state that girls who are surrounded by risk-averse individuals would behave in a more risk averse way than girls who are surrounded by less risk averse individuals. This notion is supported by Maccoby (1998) who argues that the gendered aspect of an individual's behaviour is brought into play by the gender of others with whom they interact.

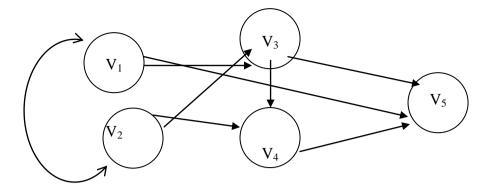


Figure 3.3: Hypothesised Causal Linkages of Variables  $V_1$ (gender stereotype),  $V_2$ (field of study),  $V_3$ (emotional intelligence),  $V_4$ (creativity),  $V_5$ (locus of control)

Considering the linkages between among the variables in Figure 3.3, one can logically presume that  $V_3$  (emotional intelligence) is a function of  $V_5$  (Creativity) and that  $V_1$ ,  $V_2$ ,  $V_4$  are functions of  $V_5$  According to available literature Individuals with high critical thinking abilities are reflective, focused and able to recognise the existence of problems, and apply the relevant skills and knowledge to solve the problems. Creativity and high intelligence may contribute to alertness (Shane, 2003). A study of engineering students found that a participant's self-perception of creativity and a supportive family environment that promotes creative thinking has predictive value for entrepreneurial intention (Zampetakis & Moustakis, 2006). In the context of opportunity exploitation, entrepreneurs are expected to be sensitive to market needs and be able to prescribe solutions to meet these needs (Ardichvili, Cardozo & Ray, 2003). In addition to this, Akinboye (2003); Bar-On (2000) stated that intelligence and creativity are tied to emotions.

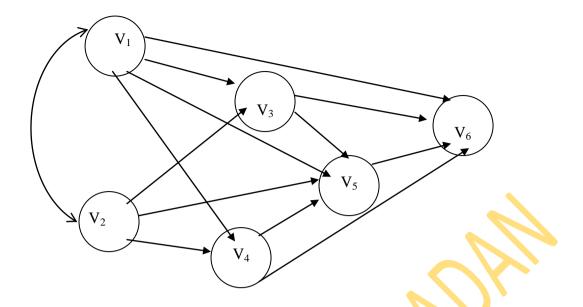


Figure 3.4: - Hypothesized Causal Linkages of Variables  $V_1$  (gender stereotype),  $V_2$  (field of study),  $V_3$  (emotional intelligence),  $V_4$  (creativity),  $V_5$  (locus of control),  $V_6$  (social capital)

Early researchers (Lefcourt 1981; Sia, Hungerford & Tomera, 1985; Van Kooten, Schoney & Hayward, 1986) have shown strong linkages between locus of control and behaviour in areas as diverse as physical and mental health, intellectual achievement and entrepreneurship (Rauch & Frese, 2000). An individual with strong internal locus of control may tend to believe that she/he can influence and alter a situation through the exercise of her/his skills and knowledge. In support of this, Babalola (2009) is of the view that strong internal control tends to bring about selfconfidence. Again, studies showed that high self-efficacy is essential to most human performance (Bandura, 1997; Bandura, Pastorelli, Barbaranelli & Caprara, 1999; Sequeira, Mueller & Mcgee, 2007). Thus, without a strong sense of self-efficacy, an individual has little incentive to act or to persevere in the face of difficulties (Bandura, 2002). To Bussey and Bandura (1999), a number of factors may influence gender development (educational practices, occupational systems) while confirming that the differences in women and men are due to socialisation practices. Thus, the reliance on the notion that enterprise creation is a male domain may make gender role pressures to influence perceived efficacy. Researches (George & Zhou (2002); Amabile, Barsade, Mueller & Staw (2005); Isen, 1999) have revealed a specific influence of creativity on emotional intelligence. It was noticed that, in order to avoid a negative experience in situations, individuals explain their negative moods as the necessity to find a creative decision (George & Zhou, 2002) and that positive moods enlarge perception and enforce the flexibility and width of thinking.

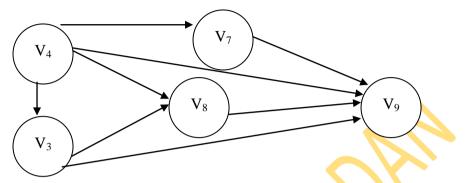


Figure 3.5: - Hypothesised Causal Linkages of Variables  $V_4$ (creativity),  $V_3$ (emotional intelligence),  $V_8$ (entrepreneurial self-efficacy),  $V_7$ (risk-taking propensity) and  $V_9$  (entrepreneurial intention)

Literature has proven that emotional intelligence influence locus of control (Tan, 2003) and entrepreneurial intention. Similarly, entrepreneurial self-efficacy has been reported to influence locus of control as well as entrepreneurial intentions. There is an established correlation between individuals' self-efficacy and their willingness to engage in and be successful in differing areas of life functioning (Bandura, 1997). Previous studies outside the negotiation context provide support for the perspective that high emotional intelligence can be a positive factor for successful interactions (Jordan, Ashkanasy, Härtel, & Hooper, 2002). For instance, Lopes Salovey & Straus (2003) found that high emotionally intelligent persons are more likely to report positive relations with others and less likely to report negative interactions with close friends.

### Identifying the Paths in the Model

The researcher will employ the technique of path analysis theorem (Wolfle, 1977) and Wright's law (Asher, 1977) to construct the resultant structural equations. Therefore, the effects of the eight explanatory variables ( $V_1$  to  $V_8$ ) will be predicted on the criterion variable ( $V_9$ ) using the structural equation stated subsequently:

The hypothesized model in figure 3.6 shows the hypothesized path from the variables  $V_1$ - $V_8$  to entrepreneurial intentions. This model shows a relationship depicting gender stereotype ( $V_1$ ) and field of study/ discipline ( $V_2$ ) as related and

influencing other variables. All the other variables were assumed to affect directly or indirectly the entrepreneurial intention (V<sub>9</sub>).  $e_3$  to  $e_8$  are residual variables that explain the effects of the variables outside the model.

The equations for the nine- variable causal model in Figure 3.6 are as shown below:

$$V_{3=}P_{31}V_{1} + P_{32}V_{2} + e_{3}$$

$$V_{4}= P_{41}V_{1} + P_{42}V_{2} + P_{43}V_{3} + e_{4}$$

$$V_{5}=P_{51}V_{1} + P_{52}V_{2} + P_{53}V_{3} + P_{54}V_{4} + e_{5}$$

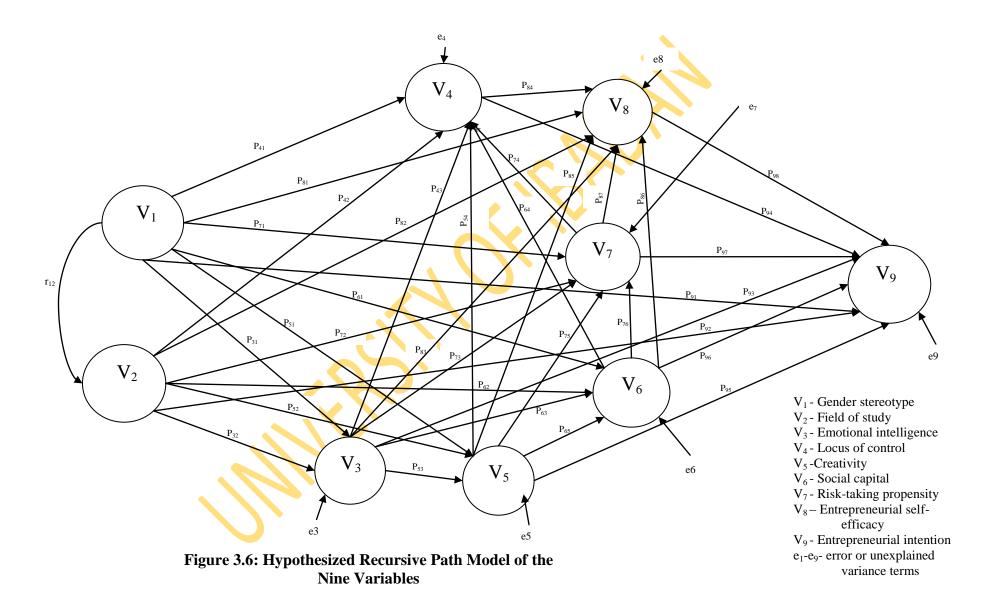
$$V_{6}=P_{61}V_{1} + P_{62}V_{2} + P_{63}V_{3} + P_{64}V_{4} + P_{65}V_{5} + e_{6}$$

$$V_{7}=P_{71}V_{1} + P_{72}V_{2} + P_{73}V_{3} + P_{74}V_{4} + P_{75}V_{5} + P_{76}V_{6} + e_{7}$$

$$V_{8}=P_{81}V_{1} + P_{82}V_{2} + P_{83}V_{3} + P_{84}V_{4} + P_{85}V_{5} + P_{86}V_{6} + P_{87}V_{7} + e_{8}$$

$$V_{9}=P_{91}V_{1} + P_{92}V_{2} + P_{93}V_{3} + P_{94}V_{4} + P_{95}V_{5} + P_{96}V_{6} + P_{97}V_{7} + P_{98}V_{8} + e_{9}$$

Where:  $V_9$ = Criterion variable.



# CHAPTER FOUR RESULTS

This chapter presents the results of the data analysis. All six research questions raised in the study were answered.

#### **Research Question One**

What is the composite significant effect of the selected factors on Entrepreneurial intention?

R=0.456					
R Square $= 0$	.208				
Adjusted R so	quare = 0.204				
Model	Sum of	Df	Mean	F	Sig.
	Squares		Square		
Regression	10009.534	8	1251.192	57.947	.000
Residual	38218.053	1770	21.596		
Total	48227.586	1778		_	

Table 4.1 shows that the multiple correlation coefficient (R) indicating the relationship between the predictor variables (entrepreneurial self-efficacy, risk-taking propensity, social capital, locus of control, emotional intelligence, creativity, gender stereotype and field of study/ discipline) and the dependent variable (entrepreneurial Intention) is 0.456 while the adjusted R square is 0.204. This implies that the predictor variables accounted for 20.4 per cent variance in Entrepreneurial intention of the undergraduates. Further, verification using regression analysis of variance (ANOVA) produced  $F_{(8,1770)} = 57.947$ ; P< 0.05). This implies that the selected factors compositely affected the entrepreneurial intention of undergraduates significantly.

### **Research question Two**

What are the relative contributions of each of the independent variables on the prediction of entrepreneurial intention?

Model	Unstandardised	Coefficients	Standardised Coefficient	t	Sig.
	В	Std. Error			
1 (Constant)	3.876	1.126		3.443	0.001
Gender	-0.301	0.213	-0.030	-1.409	0.159
Field of study	0.177	0.101	0.038	1.747	0.081
Emotional intelligence	0.086	0.009	0.257	9.143	0.000
Locus of Control	-0.094	0.033	-0.061	-2.827	0.005
Creativity	0.059	0.009	0.181	6.906	0.000
Social Capital	-0.032	0.015	-0.054	-2.154	0.031
Risk-Taking Propensity	-0.036	0.025	0.035	1.454	0.146
Entrepreneurial Self-Efficacy	0.069	0.014	0.121	4.937	0.000

<b>Table 4.2:</b>	Relative	Contribution	of	each	of	the	Independent	Variables	on
	Entrepre	neurial Intenti	on.						

Table 4.2 reveals that the beta ( $\beta$ ) weights of the paths (path coefficients) give the estimates of the strength of causation. The entire independent variables were found to contribute differentially to entrepreneurial intention. Specifically, emotional intelligence contributed the most to entrepreneurial intention of the undergraduates ( $\beta$ = .257; P< .05). This is followed in order of magnitude of beta weights by creativity ( $\beta$ = .181; P<.05), while self-efficacy came third in the order of magnitude of contribution ( $\beta$ = .121; P< .05), locus of control was also found to have made a relative contribution to entrepreneurial intention of the undergraduates with a  $\beta$  value of -.061; P< .05. Finally, social capital

made a relative contribution to entrepreneurial intention of the undergraduates with a  $\beta$  value of -.054; P<.05.

# **Research question Three**

What is the most meaningful causal model for explaining entrepreneurial intention of undergraduates?

# Table 4.3: Path Coefficients (Beta weights) and Zero Order Correlations among Variables in the Hypothesised Model on Entrepreneurial Intention.

Pathways	Path Coefficients (Beta weight value)	Zero Order correlations(r value)	Remark
P <sub>31</sub>	-0.015	-0.012	NS
P <sub>32</sub>	-0.037	-0.036	NS
$P_{41}$	-0.040	-0.030	NS
P <sub>42</sub>	0.157	0.156	S
P <sub>43</sub>	0.055	0.061	S
$P_{51}$	-0.050	-0.053	S
P <sub>52</sub>	0.075	0.101	S
$P_{53}^{52}$	0.542	0.549	S
P <sub>54</sub>	0.070	0.116	S
$P_{61}$	0.079	0.062	S
$P_{62}$	0.164	-0.141	S
P <sub>63</sub>	0.408	0.391	S
P <sub>64</sub>	0.034	0.029	NS
P <sub>65</sub>	-0.022	0.186	NS
P <sub>71</sub>	-0.008	-0.000	NS
P <sub>72</sub>	-0.024	0.047	NS
P <sub>73</sub>	-0.038	-0.276	NS
P <sub>74</sub>	0.046	0.076	S
P <sub>75</sub>	0.180	0.269	S
P <sub>76</sub>	0.350	0.402	S
$P_{81}$	-0.074	-0.075	S
P <sub>82</sub>	0.081	0.097	S
$P_{83}$	0.310	0.453	S
$P_{84}$	0.073	0.130	Ŝ
P <sub>85</sub>	0.148	0.371	S
$P_{86}$	0.102	0.257	S
P <sub>87</sub>	0.049	0.217	S
P <sub>91</sub>	-0.030	-0.051	NS
$P_{92}$	0.038	0.072	NS
P <sub>93</sub>	0.257	0.398	S
P <sub>94</sub>	-0.061	-0.001	S S
P <sub>95</sub>	0.181	0.365	S
P <sub>96</sub>	-0.054	0.116	S
P <sub>97</sub>	0.035	0.152	NS
P <sub>98</sub>	0.121	0.296	S

S= Significant Paths;  $r_{ij}$  significant at P < 0.05 and  $P_{ji} \ge 0.05$ 

NS= non-significant

The hypothesised path model on entrepreneurial intention adopted for this study is shown in table 4.3 and reproduced as Figure 4.1 with the path coefficients and zero order correlation coefficients. These paths were trimmed in accordance with the results obtained as well as data analysed to produce a meaningful path model for entrepreneurial intention as shown in Fig 4.1. Variables with no significant paths or effects were removed at the end of the trimming while variables which had significant effects were retained and used to produce a path model explaining the entrepreneurial intention of undergraduates. The study employed the statistical significance and meaningfulness criterion of trimming down the model; this is done in order to avoid the interference of minute path coefficients (Kerlinger & Pedhazur, 1973). The absolute value of the path co-efficient in this study was taken to be at least 0.05 for meaningfulness and as recommended by Land (1969) cited by Adeleke (2007). Zero order correlation at 0.05 levels was also used to identify the significant paths premised on these two recommendations, 24 were found to be significant in this study.

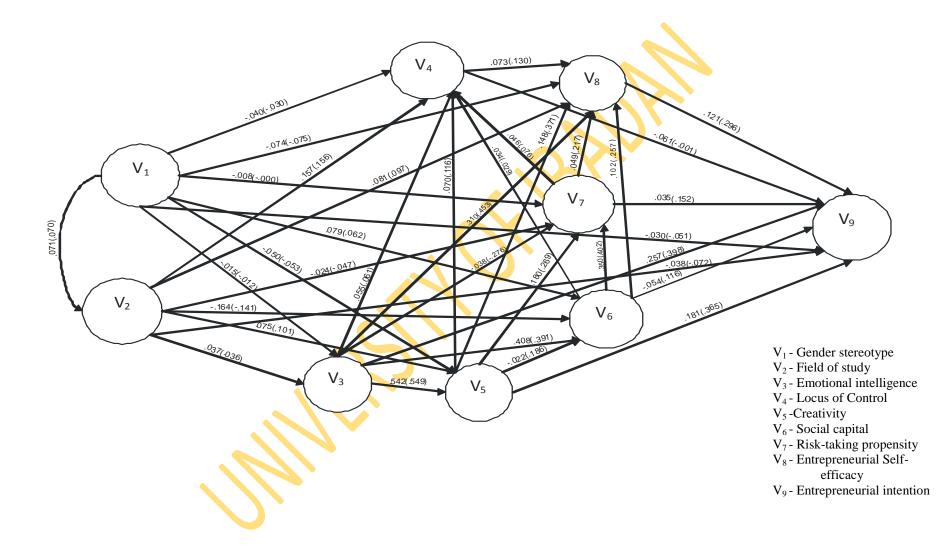


Figure 4.1: Hypothesised Recursive Path Model of the Nine Variables

Pathways	Path Coefficients	Zero Order	Remark
-	(Beta weight value)	correlations(r	
		value)	
P 42	0.157	0.156	S
P <sub>43</sub>	0.055	0.061	S
P <sub>51</sub>	-0.050	-0.053	S
P <sub>52</sub>	0.075	0.101	S
P <sub>53</sub>	0.542	0.549	S
P <sub>54</sub>	0.070	0.116	S
P <sub>61</sub>	0.079	0.062	S
P <sub>62</sub>	0.164	-0.141	S
P <sub>63</sub>	0.408	0.391	S
P <sub>74</sub>	0.046	0.076	S
P <sub>75</sub>	0.180	0.269	S
P <sub>76</sub>	0.350	0.402	S
P <sub>81</sub>	-0.074	-0.075	S
P <sub>82</sub>	0.081	0.097	S
P <sub>83</sub>	0.310	0.453	S
P <sub>84</sub>	0.073	0.130	S
P <sub>85</sub>	0.148	0.371	S
P <sub>86</sub>	0.102	0.257	S
P <sub>87</sub>	0.049	0.217	S
P <sub>93</sub>	0.257	0.398	S
P <sub>94</sub>	-0.061	-0.001	S
P <sub>95</sub>	0.181	0.365	S
P <sub>96</sub>	-0.054	0.116	S
P <sub>98</sub>	0.121	0.296	S

Table 4.4:Significant Paths and their Path Coefficients on EntrepreneurialIntention

 $\frac{1.98}{\text{S}=\text{Significant Paths; } r_{ij} \text{ significant at } P < 0.05 \text{ and } P_{ji} \ge 0.05$ 

# P<sub>42</sub> to P<sub>98</sub> shows the nexus between the variables

Table 4.4 shows the paths obtained after trimming and they had the following impacts:

**P**<sub>42</sub>: ( $\beta$ = 0.157; r<sub>ij</sub> significant at P ≤ 0.05 and |P<sub>ji</sub>|≥ 0.05), showed that field of study had significant causal effect on the locus of control of the undergraduates. **P**<sub>43</sub>: ( $\beta$ = 0.055; r<sub>ij</sub> significant at P ≤ 0.05 and |P<sub>ji</sub>|≥ 0.05), showed that emotional intelligence had significant causal effect to the locus of control of the undergraduates. **P**<sub>51</sub>: ( $\beta$ = -0.050; r<sub>ij</sub> significant at P ≤ 0.05 and |P<sub>ji</sub>|≥ 0.05), indicated that gender stereotype had significant causal effect on the creative ability of the undergraduates. **P**<sub>52</sub>: ( $\beta$ = 0.075; r<sub>ij</sub> significant at P ≤ 0.05 and |P<sub>ji</sub>|≥ 0.05), indicated that field of study had significant causal effect on the creative ability of the undergraduates **P**<sub>53</sub>: ( $\beta$ = 0.542; r<sub>ij</sub> significant at P ≤ 0.05 and |P<sub>ji</sub>|≥ 0.05), indicated that emotional intelligence had significant causal effect on the creative ability of the undergraduates **P**<sub>54</sub>: ( $\beta$ = 0.070; r<sub>ij</sub> significant at P $\leq$  0.05 and  $|P_{ji}|\geq$  0.05), revealed that locus of control had significant causal effect on the creative ability of the undergraduates

**P**<sub>61</sub>: ( $\beta$ = 0.079; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), showed that gender stereotype had significant causal effect on the social capital of the undergraduates

 $P_{62:}$  ( $\beta$ = -0.164; r<sub>ij</sub> significant at P $\leq$  0.05 and  $|P_{ji}|\geq$  0.05), revealed that field of study had significant causal effect on the social capital of the undergraduates

**P**<sub>63</sub>: ( $\beta$ = 0.408; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), showed that emotional intelligence has a causal significant effect on the social capital of the undergraduates.

**P**<sub>74</sub>: ( $\beta$ = 0.046; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), concluded that locus of control had a causal significant effect on the risk-taking propensity of the undergraduates.

**P**<sub>75</sub>: ( $\beta$ =0.180; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), showed that creativity had a causal significant effect on the risky-taking propensity of the undergraduates.

**P**<sub>76</sub>: ( $\beta$ = 0.350; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), revealed that social capital had significant causal effect on the risk-taking propensity of the undergraduates.

**P**<sub>81</sub>: ( $\beta$ = -0.074; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), revealed that gender stereotype had significant causal effect on the entrepreneurial self-efficacy of the undergraduates.

**P**<sub>82</sub>: ( $\beta$ = 0.081; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), showed that field of study had significant causal effect on the entrepreneurial self-efficacy of the undergraduates. **P**<sub>83</sub>: ( $\beta$ = 0.310.; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ii</sub>| $\geq$  0.05), revealed that emotional

intelligence had significant causal effect on the entrepreneurial self-efficacy of the undergraduates.

**P**<sub>84</sub>: ( $\beta$ = 0.073; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), revealed that locus of control had significant causal effect on the entrepreneurial self-efficacy of the undergraduates.

**P**<sub>85</sub>: ( $\beta$ = 0.148; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), indicated that creativity had significant causal effect on the entrepreneurial self-efficacy of the undergraduates.

 $P_{86}$ : ( $\beta$ = 0.102; r<sub>ij</sub> significant at P $\leq$  0.05 and  $|P_{ji}|\geq$  0.05), concluded that social capital had significant causal effect on the entrepreneurial self-efficacy of the undergraduates.

**P**<sub>87</sub>: ( $\beta$ = 0.049; r<sub>ij</sub> significant at P $\leq$  0.05 and  $|P_{ji}|\geq$  0.05), indicated that risk-taking propensity had significant causal effect on the entrepreneurial self-efficacy of the undergraduates.

**P**<sub>93</sub>: ( $\beta$ = 0.257; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), indicated that emotional intelligence had significant causal effect on the entrepreneurial intention of the undergraduates.

**P**<sub>94</sub>: ( $\beta$ = -0.061; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), implied that locus of control had significant causal effect on the entrepreneurial intention of the undergraduates. **P**<sub>95</sub>: ( $\beta$ = 0.181; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), indicated that creativity had significant causal effect on the entrepreneurial intention of the undergraduates. **P**<sub>96</sub>: ( $\beta$ = -0.054; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), indicated that social capital had significant causal effect on the entrepreneurial intention of the undergraduates. **P**<sub>96</sub>: ( $\beta$ = 0.121; r<sub>ij</sub> significant at P $\leq$  0.05 and |P<sub>ji</sub>| $\geq$  0.05), implied that risk-taking propensity had significant causal effect on the entrepreneurial self-efficacy of the undergraduates.

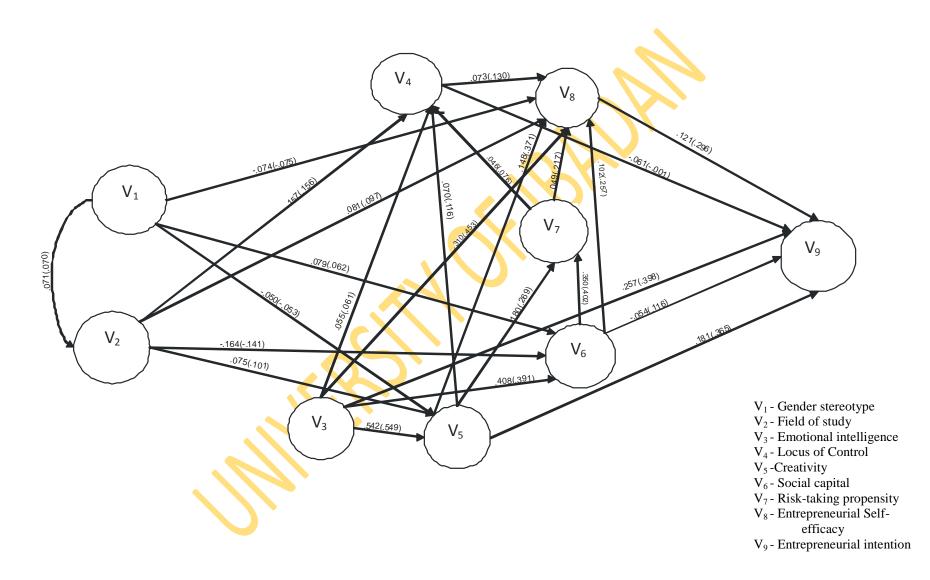


Figure 4.2: Validated recursive Path Model of the Nine Variables

#### **Research Question Four**

Are there significant differences between the hypothesised models and the reproduced causal models in relation to entrepreneurial intention of undergraduates?

<b>Table 4.5:</b>	The Original and Reproduced Correlation Matrix for the nine
	variables in the model

	X1	X <sub>2</sub>	X <sub>3</sub>	$X_4$	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>	X9
X <sub>1</sub>	1	0.70	-0.01	-0.03	-0.05	0.06	0.00	-0.08	-0.05
X <sub>2</sub>	0.071	1	0.04	0.16	0.32	-0.15	-0.01	0.13	-0.05
X <sub>3</sub>	-0.012	0.036	1	0.06	0.55	0.40	0.28	0.46	0.14
$X_4$	-0.030	0.156	0.061	1	0.12	0.03	0.08	0.13	0.00
X <sub>5</sub>	-0.053	0.101	0.549	0.549	1	0.15	0.25	0.38	-0.38
X <sub>6</sub>	-0.062	0.141	0.391	0.029	0.186	1	0.37	0.25	0.11
X <sub>7</sub>	0.000	-0.047	0.276	0.076	0.269	0.402	1	0.22	0.15
X <sub>8</sub>	-0.075	0.097	0.453	0.130	0.371	0.257	0.217	1	0.30
X9	-0.051	0.072	0.398	-0.001	0.365	0.116	0.152	0.296	1

Table 4.5 is demarcated by the constant value 1, diagonally below it is the Zero correlation and above it, is the Reproduced correlation

In Table 4.5,

- X<sub>1</sub>----- Gender stereotype
- X<sub>2</sub>..... Field of study

X<sub>3</sub>..... Emotional intelligence

- X<sub>4</sub>..... Locus of control
- X<sub>5</sub>---- Creativity
- X<sub>6</sub> ..... Social capital
- X7----- Risk-taking propensity
- X<sub>8</sub>..... Entrepreneurial self-efficacy
- X<sub>9</sub>..... Entrepreneurial intention

Table 4.5 shows the zero order correlation (obtained from data analysis) and the reproduced correlation. The zero order correlation is presented in the diagonal below while the reproduced is presented in the diagonal above. The discrepancies between

the original and reproduced correlation in the model is presented in Table 4.6. This is done to validate the efficacy of the new model and to identify the differences. The original and reproduced correlation coefficients are compared and the discrepancies are found to be minimal for all the 36 coefficients (< 0.05).

Path	Zero order	Reproduced	Difference
r12	0.071	0.070	0.001
r13	0.012	-0.000	0.002
r14	-0.030	-0.030	0.002
r15	-0.053	-0.050	-0.003
r16	0.062	-0.060	0.002
r17	0.000	0.000	0.000
r18	-0.075	-0.080	0.005
r19	-0.051	-0.050	-0.001
r23	0.036	-0.040	-0.004
r24	0.156	0.160	-0.004
r25	0.101	0.320	-0.219
r26	-0.141	-0.150	0.009
r27	-0.047	-0.010	-0.037
r28	0.097	0.130	-0.033
r29	0.072	0.050	0.022
r34	0.061	0.060	0.001
r35	0.549	0.550	-0.001
r36	0.391	0.400	-0.009
r37	0.276	0.280	-0.004
r38	0.453	0.460	-0.007
r39	0.398	0.140	0.258
r45	0.116	0.120	0.004
r46	0.029	0.030	-0.001
r47	0.076	0.080	-0.004
r48	0.130	0.130	0.000
r49	-0.001	0.000	-0.001
r56	0.186	0.150	0.036
r57	0.269	0.250	0.019
r58	0.371	0.380	-0.009
r59	0.365	0.380	-0.015
r67	0.402	0.370	0.032
r68	0.257	0.250	0.007
r69	0.116	0.110	0.006
r78	0.217	0.220	-0.003
r79	0.152	0.150	0.002
r89	0.296	0.300	-0.004

 Table 4.6: Discrepancies between Original and Reproduced Correlation in the

 Model

 $\Sigma$ Total difference= 0.047

Mean difference= 0.001

The pattern of correlation in the observed data is consistent with the data in the new models, where the total difference obtained is 0.047 with a mean difference of 0.001 which is approximately zero. This shows that there is no significant difference between the zero order and reproduced correlation. This result makes it clear that the correlated and path coefficients in the new model (Figure 4.1) could be the most meaningful causal model that best explains entrepreneurial intention of undergraduates in Southwest, Nigeria. The model is therefore considered fit and adequate in explaining the causal effect of the selected factors on entrepreneurial intention of undergraduates investigated by the researcher.

### **Research Question Five**

What proportion (in percentages) of the total effect of the psychosocial factors is direct or indirect on entrepreneurial intention?

# Table 4.7:Proportion of Total Effects of Independent Variables that areDirect and Indirect on Entrepreneurial Intention

Criterion	Independent	Total		Direct		Indirect	
	Variables	Effects	%	Effect	%	Effect	%
	$V_{1} - V_{8}$	А		В		С	
	$\mathbf{V}_1$	-0.051	-3.79	-0.030	-2.23	-0.020	-1.48
	$V_2$	0.072	5.35	0.038	2.82	0.034	2.52
	$V_3$	0.398	29.55	0.257	19.08	0.141	10.48
Adjusted R <sup>2</sup>	$V_4$	-0.001	-0.07	-0.061	-4.53	0.060	4.45
R <sup>2</sup>	$V_5$	0.365	27.09	0.181	13.44	0 <mark>.18</mark> 4	13.66
	$V_6$	0.116	8.61	-0.054	-4.01	0.170	12.62
	$V_7$	0.152	11.28	0.035	2.60	0.117	8.70
	$V_8$	0.296	21.98	0.121	8.98	0.175	12.99
Total		1.347	100.0	0.487	36.15	0.753	63.85

Where:  $A \rightarrow Total Effect (TE) = Original Correlation$ 

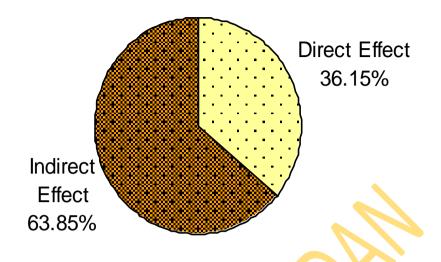
 $B \rightarrow Direct Effect DE) = Path Coefficient (obtained from regression .$ 

analysis,

# Indicating the beta weight)

# $C \rightarrow$ indirect Effect (IE) = Total Effect- Direct Effect

Table 4.7 showed the total (direct and indirect) effects of the eight independent variables ( $V_1$  to  $V_8$ ) on the dependent variable. The percentage of total direct effect obtained for the eight independent variables was 36.15% while the percentage of total indirect effect was 63.85%. All in all, the eight independent variables contributed a total of 20.4% (adjusted R square = 0.204) to the total variance observed on measure of entrepreneurial intention.



# Figure 4.3: Proportions of total effects of the independent variables that directly and indirectly affected entrepreneurial intention

Figure 4.3 is a pie chart pictorial presentation showing proportions of total effect of independent variables that directly and indirectly affected entrepreneurial intention. Figure 4.3 showed that the indirect effect was greater than the direct effect.

#### **Research Question 6**

What are the significant pathways indicating direct and indirect effects of independent variables on entrepreneurial intention?

<b>Table 4.8:</b>	Significant Pathways Indicating Direct and Indirect Effects of
	Independent variables on Entrepreneurial Intention

Normal Equation	Direct Pathway	Indirect Pathway
r 19	-	1: $P_{61}P_{86}P_{98}$
r <sub>29</sub>	-	3: $P_{42}P_{84}P_{98}$ ; $P_{52}P_{85}P_{98}$ ; $P_{62}P_{76}P_{87}P_{98}$
r <sub>39</sub>	P <sub>93</sub>	4: $P_{43}P_{84}P_{98}$ ; $P_{63}P_{86}P_{98}$ ; $P_{83}P_{98}$
		$P_{53}P_{75}P_{87}P_{98}$
r <sub>49</sub>	P <sub>94</sub>	2: $P_{84}P_{98}$ , $P_{54}P_{84}P_{98}$
r <sub>59</sub>	P <sub>95</sub>	2: $P_{51}P_{85}P_{98}$ ; $P_{85}P_{98}$
r <sub>69</sub>	P <sub>96</sub>	2: $P_{62} P_{86} P_{98}$ ; $P_{76} P_{87} P_{98}$ ;
<b>r</b> <sub>79</sub>	-	3: $P_{74}P_{84} P_{98}; P_{75}P_{87}P_{98}; P_{87}P_{98}$
r <sub>89</sub>	P <sub>98</sub>	2: $P_{81}P_{98}$ ; $P_{82}P_{98}$
Total	5	19

The hypothesised model in Figure 4.2 showed paths which exert both direct and indirect effects on entrepreneurial intention. Table 4.8 shows both the direct and indirect paths that are significant. There were 24 pathways through which the predictor variables  $V_1$  to  $V_8$  caused variation on the dependent variable (entrepreneurial intention). Out of all these paths, five showed direct pathways while the remaining nineteen were of indirect effect.

 $P_{93}$  indicated that emotional intelligence had a direct path to entrepreneurial intention.

 $P_{94}$  indicated that locus of control had a direct path to entrepreneurial intention.

 $P_{95}$  indicated that creativity had a direct path to entrepreneurial intention.

 $P_{96}$  indicated that social capital had a direct path to entrepreneurial intention.

 $P_{98}$  indicated that entrepreneurial self-efficacy had a direct path to entrepreneurial Intention.

The nineteen (19) indirect paths from the model are:

 $P_{51}P_{85}P_{98}$  indicated gender stereotype as having a direct path to creativity, creativity had a direct link to entrepreneurial self-efficacy and entrepreneurial self-efficacy affected entrepreneurial intention.

 $P_{61} P_{86} P_{98}$ : indicated that gender stereotype had a direct effect on social capital, social capital had a direct effect on entrepreneurial self-efficacy and entrepreneurial self-efficacy had a direct effect on entrepreneurial intention. In other words, gender

stereotype had an indirect effect on entrepreneurial intention through social capital as well as through entrepreneurial self-efficacy.

 $P_{42}$   $P_{84}$   $P_{98:}$  indicated that field of study had a direct effect on locus of control, consequently, locus of control had a direct effect on entrepreneurial self-efficacy before exerting its effect on entrepreneurial intention.

 $P_{52}P_{85} P_{98}$ : indicated that field of study has a direct effect on creativity, creativity had a direct effect on entrepreneurial self-efficacy before showing its direct causal effect on entrepreneurial intention.

 $P_{62}P_{86}P_{98}$ : indicated that field of study had a direct effect on social capital, social capital had a direct effect on entrepreneurial self-efficacy and entrepreneurial self-efficacy showed its direct effect on entrepreneurial intention.

 $P_{43} P_{84} P_{98}$ : indicated that emotional intelligence had a direct effect on locus of control, locus of control had direct effect on entrepreneurial self-efficacy and entrepreneurial self-efficacy showed a direct causal effect on entrepreneurial intention. Thus, emotional intelligence affected entrepreneurial intention through locus of control and entrepreneurial self-efficacy.

 $P_{63} P_{86} P_{98}$ : indicated that emotional intelligence had a direct effect on social capital, social capital affected entrepreneurial self-efficacy directly and entrepreneurial self-efficacy affected entrepreneurial intention.

 $P_{53}$   $P_{75}$   $P_{87}$   $P_{98:}$  indicated that emotional intelligence had direct effect on creativity, creativity had direct effect on risk-taking propensity and social capital showed a direct causal effect on entrepreneurial intention.

 $P_{83} P_{98}$ : indicated that emotional intelligence had direct effect on entrepreneurial self-efficacy, entrepreneurial self-efficacy then showed its effects on entrepreneurial intention.

 $P_{84}P_{98}$ : indicated that locus of control had direct effect on entrepreneurial self-efficacy and then entrepreneurial self-efficacy had direct effect on entrepreneurial intention.

 $P_{85}P_{98}$ : indicated that creativity had direct effect on entrepreneurial self-efficacy, and then entrepreneurial self-efficacy showed a direct link on entrepreneurial intention.

 $P_{62}P_{76}P_{87}P_{98}$ : indicated that field of study had direct effect on social capital, social capital had direct effect on risk-taking propensity, risk-taking propensity had direct effect on entrepreneurial self-efficacy and entrepreneurial self-efficacy had direct effect on entrepreneurial intention.

 $P_{74}P_{84}P_{98}$ : indicated that locus of control had a direct effect on risk-taking propensity, locus of control also showed a direct link with entrepreneurial self-efficacy which in turn showed direct effect on entrepreneurial intention.

 $P_{75}P_{87}P_{98}$ : indicated that creativity had a direct effect on risk-taking propensity, risk-taking propensity also showed a direct relationship to entrepreneurial self-efficacy and entrepreneurial self-efficacy showed its direct effect on entrepreneurial intention.

 $P_{87}P_{98}$ : indicated that risk-taking propensity exerted an indirect effect on entrepreneurial intention through its direct effect on entrepreneurial self-efficacy.

 $P_{81}P_{98}$ : indicated that gender stereotype showed an indirect effect on entrepreneurial intention through its direct effect on entrepreneurial self-efficacy.

 $P_{82}P_{98}$ : indicated that field of study had direct effect on entrepreneurial self-efficacy and then had a direct effect on entrepreneurial intention.

 $P_{54}P_{84}P_{98}$ : indicated that locus of control had direct effect on creativity, locus of control had direct effect on entrepreneurial self-efficacy and entrepreneurial self-efficacy had a direct effect on entrepreneurial intention.

 $P_{76}P_{87}P_{98}$ : indicated that social capital had a direct effect on risk-taking propensity, risk-taking propensity also showed a direct relationship with entrepreneurial self-efficacy and entrepreneurial self-efficacy showed its direct effect on entrepreneurial intention.

# Summary of findings

Below is the summary of findings of this research:

- 1. That all the selected independent variables compositely impact the entrepreneurial intention of undergraduates. They accounted for 20.4 per cent of the variance in undergraduate entrepreneurial intention in Southwest Nigeria.
- Emotional Intelligence contributed the most in order of magnitude to the determination of entrepreneurial intention. Creativity, self-efficacy, locus of control and social capital in order of magnitude contributed to the determination of entrepreneurial intention of undergraduates.
- 3. The pattern of correlation in the data analysis is consistent with the new or reproduced model, thus the model is tenable in explaining the causal effect of the independent variables on entrepreneurial intention.

- 4. There are five significant direct and 19 indirect paths of the independent variables on entrepreneurial intention.
- 5. The direct and indirect effects recorded 36.15 per cent and 63.85per cent respectively. These were observed to be the causal effect of the selected variables on entrepreneurial intention in the study.
- 6. Emotional intelligence (V<sub>4</sub>)had the highest total causal effect on undergraduate entrepreneurial intention (29.55%), followed by creativity (27.09%), and entrepreneurial self-efficacy (21.97%). This was followed by risk-taking propensity (11.28%), social capital (8.61%), field of study (5.35%), gender stereotype (3.79%) and locus of control (0.07%) making the lowest contribution to undergraduate entrepreneurial intention.

#### **CHAPTER FIVE**

#### DISCUSSION, CONCLUSION AND RECOMMENDATIONS

## Introduction

The goal of this study is to determine the effects of some psychosocial variables on entrepreneurial intention of undergraduates in Southwestern, Nigeria. This is accomplished by examining the pattern of direct and indirect relationship among independent variables (entrepreneurial self-efficacy, risk-taking propensity, and social capital, locus of control, emotional intelligence, creativity, gender stereotype and field of study / discipline) on entrepreneurial intention (dependent variable).

# 5.1 Discussions of Findings

#### **Research Question One**

What is the composite significant effect of the selected factors (entrepreneurial selfefficacy, risk-taking propensity, and social capital, locus of control, emotional intelligence, creativity, gender stereotype and field of study / discipline) on Entrepreneurial intention?

The result shows that 20.4 per cent variance in entrepreneurial intention of the undergraduates is accounted for by the independent variables under consideration. The study further alludes to the fact that when certain factors are intrinsic in an individual, their behaviour is either positively or negatively affected. This is in line with Abe (1995) who contended that it is plausible to understand the totality of man being guided by their social psychological variables. This result has further shown the stance of these variables which make them unique and vital in understanding of the manifested and hidden behaviour in an individual. Early researches (Boyd & Vozikis, 1994; Cross & Travaglione, 2003; McGee, Peterson, Mueller & Sequeira, 2009) have also supported this view by emphasising that there are key characteristics that must be present in an individual who desires to be an entrepreneur. In other words, these individuals must have characteristics such as high level of self-efficacy, high level of internal control, be able to understand their emotions as well as the emotions of others and must seek to explore opportunities wherever possible (Timmons & Spinelli, 2003; Shchaper & Volery, 2004). Individuals must be highly creative and innovative with a

determination to succeed and be willing to take premeditated risks. This is in line with an earlier view of Drucker(1985) who opines that innovation is the specific instrument of entrepreneurship and that entrepreneurs take calculated risks as opposed to having high risk propensity. Auspiciously, it is possible to learn and develop all these traits and thus, an effective training programme can play a crucial role in strengthening the entrepreneurial intention of undergraduates.

#### **Research question Two**

What are the relative contributions of each of the independent variables to the prediction of entrepreneurial intention?

Results show that emotional intelligence, creativity, entrepreneurial selfefficacy, locus of control and social capital contributed fully to the determination of entrepreneurial intention. It is of great interest to know that emotional intelligence contributed the most to entrepreneurial intention. It deals with human emotion; it also emphasises ability to manage one's emotion which may consequently influence others. This study supports Lyubomirsky, King and Diener (2005) who observe that emotionally intelligent individuals experience positive emotions displayed in form of happiness and are successful across multiple life domains not only because success makes people happy but also because it positively affect success. Emotionally intelligent individuals are likely to be able to reason with unfamiliar problems, may take better decisions and of course experience a better social relationship with people around them. This corroborates Bastian, Burns and Nettelbeck (2005) who insist that emotions may moderate intelligent behaviour by influencing an individual's reaction and interpretation of information. They went further to state` that emotional intelligence is correlated with higher life satisfaction better perceived problem-solving and coping ability and lower anxiety.

Creativity was the next variable found to be significant in determining the entrepreneurial intention of undergraduates. How creative an individual is will determine the entrepreneurial intentions of the individual. This is in conformity with the definition of an entrepreneur and entrepreneurship given by Zimmerer and Scarborough (2002), Hisrich & Peters (2002) when they described an entrepreneur as a person who creates a new business in the face of risk and uncertainty for the purpose of achieving profit and growth by identifying opportunities and assembling the necessary resources to capitalise on them. Meanwhile, entrepreneurship is the process

of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic and social risks and receiving the resulting rewards of monetary and personal satisfaction and independence. In the same vein, Ward (2004) agrees to this by stating that creativity plays a vital role in enhancing entrepreneurial ventures.

Self-efficacy was equally found to significantly contribute to entrepreneurial intention. The possible explanation for this could be that having a strong self-efficacy belief will encourage an individual's motivation to succeed in a given task and in this case, stating a new business. This is perhaps why Boyd and Vozikis (1994) argue that a person's intention to create a new business will be strongest when he or she has a high degree of self-efficacy resulting from mastery experience, entrepreneurial role model, social persuasion, and a high degree of goal setting. Krueger and Dickson (1994) further support this by viewpoint showing that an increase of self-efficacy is a major impediment when considering the creation of new business (Lee, Wong, Chen, & Chua, 2005).

Locus of control was another significant contributor to entrepreneurial intention. It is plausible that undergraduates who display a high sense of locus of control believe they are in control of situations around them rather than relying on chance. These individuals believe luck and fate do not decide what will happen to them. This is especially true in Nigeria where the economic situation is not good and individuals have to depend on luck or the people they know in order to get jobs after graduation. Grantz (1999), McWilliams and Saskatchewan (1998) agree to this when they said that someone with an external locus of control may feel working hard is futile because their efforts bring about disappointment. Identifying locus of control as a significant variable in this study has also substantiated the findings of Bowen and Hisrich (1986) when they indicate that confident individuals tend to be internals and hence, tend to be self-employed.

Another variable of importance was social capital. Undergraduates who enjoy relational support from their parents and relatives alike are likely to be encouraged into starting their own businesses after graduation. This is especially true for individuals who have significant others who are entrepreneurs around them. Boyd and Vozikis (1994) validated this when they state that intentions of creation are stronger when the degree of self-efficacy grows due to the presence of an entrepreneurial model and when the influences come from several close relatives. This finding is also better understood within the context of Ajzen's (1991) theory of planned behaviour that posits that an individual's attitude and perceived abilities are not enough to predict intentions and thus their behaviour and perception about others' beliefs and behaviour (Hechter-Borland, 2001) are equally pertinent.

The lowest and non-significant contributors in order of magnitude are field of study, risk-taking propensity and gender stereotype. The outcome of this study which shows that risk-taking propensity is not a significant contributor to entrepreneurial intention is at variance with earlier researches which demonstrated that the individuals who are more successful take calculated risks than individuals who are less successful. This is further in pursuance of Calvert (1993) who maintains that individuals oriented to high achievement take moderate risks and avoid perceived high-risk activities that are beyond their grasp. Further, they also avoid low-level risks that provide a limited sense of accomplishment as well as risks in which chance is likely to determine the outcome.

#### **Research question Three**

What is the most meaningful causal model for explaining entrepreneurial intention of undergraduates?

Analysis of the data as shown by the validated recursive model (Fig. 4.2) shows significant relationship from emotional intelligence to locus of control, locus of control to creativity, creativity to entrepreneurial self-efficacy, creativity to risktaking propensity, social capital to risk-taking propensity, locus of control to social capital, gender stereotype to creativity, gender stereotype to entrepreneurial selfefficacy, field of study to creativity, field of study to locus of control, field of study to social capital, risk-taking propensity to entrepreneurial self-efficacy, gender stereotype to social capital, emotional intelligence to entrepreneurial intention, locus of control to entrepreneurial intention, creativity to entrepreneurial intention, social capital to entrepreneurial intention and finally, entrepreneurial self-efficacy to entrepreneurial intention. The findings of this study therefore, acknowledge that the factors considered had significant effects on the entrepreneurial intentions of undergraduates investigated in the study. Further, findings from the validated recursive model also indicated there is no significant path directly from gender stereotype, field of study and risk-taking propensity to entrepreneurial intention.

Though gender stereotype has no direct effect on entrepreneurial intentions, results indicated that gender stereotype had indirect effect on entrepreneurial intention through creativity and entrepreneurial self-efficacy. This is probably because, it is believed that people learn gender stereotypes at an early age, and this may lead them to generally think and act in stereotype-consistent ways. This is in line with several scholars (Banaji & Greenwald, 1995; Fagenson & Marcus, 1991; Gupta, Turban, Wasti, & Sikdar, 2005) who posit and indicate that gender stereotypes influence men's and women's intention to pursue entrepreneurship, an achievement-oriented career. Further Ahl (2006), Marlow & Patton (2005) and Lewis (2006) found that the traditional view sees masculinity as a heavy trait of entrepreneurship and these stereotypical beliefs adversely affect the entry and development of women in entrepreneurship.

Field of study did not show any direct effect on entrepreneurial intentions but indirectly through locus of control, creativity, social capital and entrepreneurial selfefficacy. All these are probably made possible by reasoning logically, that since institutions can influence young people's attitudes and aspirations towards entrepreneurship, the factors mentioned above will be affected by the discipline of study of the undergraduates. This supports Pritchard, Potter and Saccuci (2004) who maintain that college or university students are influenced to choose a course of discipline based on their interest in the subject of choice, their perception of availability of jobs, their aptitude for the subject and of course, the earnings related to the chosen subject.

Another variable that did not have a direct contribution to entrepreneurial intention is risk-taking propensity. This variable however, has indirect effect on entrepreneurial intentions through its effect on entrepreneurial self-efficacy. The likely reason for this is that, an orientation towards taking risk can affect the ability of an individual towards intention to start a venture. This is evident in an earlier study of Sitkin and Pablo (1992) who contend that risk-averse decision-makers are more likely to attend to and weigh negative outcomes, overestimating threats and underestimating opportunities whereas risk seeking decision-makers tend to attend to and weigh positive outcomes, opportunities and underestimating threats.

It is worthy of note that risk-taking propensity affected entrepreneurial selfefficacy as against logical reasoning of entrepreneurial self-efficacy affecting risktaking propensity. The reason for this could be that, an individual may decide to take on some tasks just for the sake of doing them and may not be aware of what the immediate outcome will be. It is also possible that the success made out of it will ginger the individual into wanting to make further efforts and the entrepreneurial self-efficacy of the individual may begin to develop. Further, Zhao et al (2005) find entrepreneurial experience and risk propensity to positively relate to entrepreneurial self-efficacy, though, it is unclear if risk preferences affect perceptions of self-efficacy or vice versa.

Emotional intelligence  $(V_3)$  has a direct effect on entrepreneurial intention  $(v_9)$  and also an indirect effect through entrepreneurial self-efficacy  $(V_8)$ . Again, it shows an indirect relationship with entrepreneurial intention  $(V_9)$  through creativity  $(V_5)$ ; social capital  $(V_7)$  and locus of control  $(V_4)$ . Earlier researches (Barron & Harrington, 1981; Isen, Johnson, Mertz, and Robinson, 1985; Isen Daubman, and Nowicki, 1987 and Estrada, Isen, and Young , 1994) underscore this by showing a close relationship between creativity and emotional intelligence and that people who put in a positive mood produce more original word associations and perform more successfully on tests of creative ability. This is also a likely reason why creativity exhibited a direct link with entrepreneurial intention.

Social capital which is another important direct causal factor of entrepreneurial intention has an indirect pathway through entrepreneurial self-efficacy (V<sub>8</sub>). Further, entrepreneurial self-efficacy (V<sub>8</sub>) show a direct causal link with entrepreneurial intentions. The kind of relationships, either formal or informal enjoyed by individuals in their interaction with others can influence their entrepreneurial intention. This corroborates Lin (2003) who describes social capital as capital captured in the form of social relationships. Again, Portes (1998), Davidsson and Honig (2003) while remarking on the sources of social capital, identified family support and close friends as the most common sources of networking.

Locus of control which is the individual's perception about the underlying main causes of events in his/her life also has a direct effect on entrepreneurial intention. It has indirect effect on entrepreneurial intention through field of study  $(V_2)$  and emotional intelligence  $(V_3)$ . It is expected logically that individuals with high E will exhibit an internIal level of locus of control. This is shown to be so by Bellamy, Gore and Sturgis (2005), who found a relatively strong and significant relationship between locus of control and emotional intelligence.

Entrepreneurial self-efficacy was found to have a direct significant effect on entrepreneurial intention in the study. This according to Bandura (1986) is described as the belief an individual has in his or capability to successfully carry out a task. A number of researches (Chen, et al, 1998, Boyd & Vozikis, 1994; McGee et al., 2009; Segal et al., 2005) have conceded and found positive correlations of entrepreneurial self-efficacy to entrepreneurial intentions. A reason why Shane, Locke & Collins ( 2003) agreed with earlier researchers that improving students' entrepreneurial efficacy enables them to put in more effort over a longer time, persist in challenges and develop plans and strategies to achieve higher entrepreneurial goals.

#### **Research Question Four**

Are there significant differences between the hypothesised models and the reproduced causal models in relation to entrepreneurial intention of undergraduates?

Results from Table 4.5 showed that the pattern of correlation in the observed data is consistent with the reproduced data thus demonstrating no significant difference. This therefore implies that the pattern of the correlation in the observed data is consistent with the new models as presented in Table 4.5, the models are therefore fit to explain the causal effects of the independent variables on entrepreneurial intention of undergraduates in Southwest, Nigeria. A total difference (0.047) and mean difference (0.001) are minimal, approximately zero, and less than 0.05; thus indicating that the correlated and path coefficients in the new models (Figures 4.1) can be taken to be the most meaningful causal models. The consequence of the observations specifies that the linkages in the paths of the models are real and that the paths are effective in explaining the entrepreneurial intention of the undergraduates. This shows that all the significant and insignificant effects on entrepreneurial intentions can be validated with empirical data generated from the models.

#### **Research Question Five**

What proportion (in percentages) of the total effect of the psychosocial factors is direct or indirect on Entrepreneurial Intention?

For gender stereotype  $(V_1)$  in Table 4.7, the total effect in percentage contributed to the criterion variable is -3.79 per cent in which -2.23 per cent is direct and -1.48% is indirect. Field of study  $(V_2)$  made a total contribution of 5.35 per cent

with the direct effect constituting 2.82 per cent and an indirect effect of 2.52 per cent. Risk-taking  $(V_7)$  propensity has a total effect of 11.28 per cent; direct effect of 2.59 per cent and 8.69 per cent indirect effect. For emotional intelligence  $(V_3)$ , the total effect in percentage is 29.55 per cent and 19.08 per cent and 10.48 per cent direct and indirect effects respectively. Also, creativity  $(V_5)$  gave a total percentage in effect of 27.09 per cent and 13.44 per cent direct and 13.66 per cent indirect effect in percentage over the criterion variable. In the case of Locus of control, a total of 0.07 per cent total effect of percentage is exerted over the criterion variable. Locus of control show 4.53 per cent direct effect and 4.45 per cent indirect effects. Social capital ( $V_6$ ) contributed a total effect in percentage of 8.61 per cent to the criterion variable while 4.01 per cent and 4.60 per cent are direct and indirect effects in contributions to the criterion variable respectively. Finally, entrepreneurial selfefficacy ( $V_8$ ) exerts a total value in percentage of 21.97 and 8.98 per cent and 12.99 per cent direct and indirect percentage in effects respectively to the criterion variable. By and large, all the eight independent variables contributed a total of 100 per cent (Adjusted R = 20.4%) out of which 36.15 % 1s direct and 63.85% indirect. Though it is observed that in the model, the indirect effects are greater in proportion than the direct effects; this is not an indication that the independent variables are not the true explanations of entrepreneurial intention of the undergraduates. Though several researches (Wolfle, 2003; Pedhazzur, 1997) have indicated that it is better for factors to have direct effect on the dependent variable than for the effects to be indirect, yet, one can visualise the chain of events with which we wish to deal as contained in a funnel of causality. That is, an event can be seen to have arisen from a multitude of factors which can be viewed as a sequence of procedures leading to the actual behaviour (Campbel, Converse, Miller and Stokes, 1960; Acemoglu, Johnson and Robinson, 2002). Further, Glynn (2011) asserts that because researchers often want to describe how a cause affects an outcome, the importance of indirect effects is not allowed or given.

# **Research Question Six**

What are the significant pathways indicating direct and indirect effects of independent variables on entrepreneurial intention?

The significant pathways indicating direct and the indirect effects of the eight independent variables on entrepreneurial intentions of undergraduates in Southwest, Nigeria as evident in Table 4.8 revealed 24 pathways in which, five exerted direct causative effects and 25 paths exerted indirect causative effects on entrepreneurial intention of undergraduates. Findings from this study also show that all the eight independent variables (entrepreneurial self-efficacy, risk-taking propensity, social capital, locus of control, emotional intelligence, creativity, gender stereotype and field of study/ discipline) apparently caused either direct or indirect effects on the dependent variable in the path model. These indirect paths are also deemed useful in the causation of entrepreneurial intentions in the present study though various researches (MacCallum, & Austin, 2000; Meehl,, & Waller, 2002; Pedhazur, 1997; Wolfle, 2003) have indicated that direct effects of independent variables were more valuable than indirect effect.

# 5.2 Implications of the Study

A number of implications to both counselling and educational setting have been identified, considering the fact that all the independent variables are true predictors of entrepreneurial intention among undergraduates. Counselling psychologists working in higher institutions of learning should consider assisting these undergraduates to develop those factors that have been identified as potent in fostering entrepreneurial intention. For instance, emotional intelligence contributed the most in fostering of entrepreneurial intention in this study, thus helping the students understand how to manage their emotions will further assist them in understanding and appreciating the emotions of people around them. Once they are able to manage their emotions and understand other peoples' emotion, it will assist them in being prepared fully for the many tasks involved in the starting of a new venture.

These individuals would be able to understand the potency inherent in positive emotions; it will assist in increasing belief in their abilities and what they can achieve. In other words, positive emotions will likely increase their entrepreneurial selfefficacy, thus leading to their making a success out of the ventures they create.

The study is also of relevance to policymakers who should put in place policies that will aid in fostering entrepreneurial intention among undergraduates. This is because merely providing resources in terms of structure and money may not be enough without the right personnel to implement this training in higher institutions of learning. The institutions of learning also have a role to play in the fostering of entrepreneurial intention, since it is the seat of knowledge where students have the opportunity of fully learning and buying into the idea of entrepreneurship. Courses that will enhance entrepreneurial intention should be added to the curriculum and students trained in understanding that when they develop appropriate psychological traits, they can develop their full potential to further reduce drastically the rate of unemployment in the country. They will in ultimately become employers of labour and thus boost the economy of the country.

### 5.3 Conclusion

This study considered eight variables that foster entrepreneurial intentions. The role of entrepreneurial self-efficacy, risk-taking propensity, social capital, locus of control, emotional intelligence, creativity, gender stereotype and field of study / discipline as contributing to entrepreneurial intentions of undergraduate students in Southwest, Nigeria has been well established. The new model from this study is useful in explaining the causal relationship between the independent variables and entrepreneurial intention with emotional intelligence having the most effective causal effect followed by creativity, entrepreneurial self-efficacy, locus of control and social capital. This study has implication for counselling psychologists and policymakers in Nigeria.

#### 5.4 Limitations to the Study

This study has a number of limitations which are discussed below.

The first was in obtaining the statistics (total number) of final year students from some universities. This process took longer than envisaged because these institutions felt it was classified information that must not be released to the public without due process. Second, the sudden closure of some universities while the researcher was already on the field posed a great challenge to the retrieval of instruments given out for completion by the students. Similarly, the irregularity in the academic calendar of schools delayed the process of administering the questionnaires in most of the institutions. The researcher had to be careful and patient in order to be able to meet one of the conditions of inclusion which required that the final year undergraduates be sampled in their first semester of study. Many of the students viewed the instruments as too long with many items and felt it was disrupting their studies considering the fact that they were in their final year and needed all the time they could get for their school work. Notwithstanding, the results of the study are still very valid because it serves as foundation upon which other researches can be carried out.

# 5.5 Contributions to knowledge

The focus of this study is to determine the factors that could foster entrepreneurial intentions among undergraduate students in Southwest, Nigeria. This study has thus contributed a great deal to knowledge in a number of ways.

First, path analysis is used to study the effect of some factors in fostering entrepreneurial intentions among university undergraduates. This is because it shows the direct as well as indirect effects of the independent variables in the understanding of the dependent variable. The indirect effects are more pronounced, thus, if some of these indirect paths could be fostered in undergraduates, it could help them develop their intention towards entrepreneurship. Second, it has provided a basis for counselling psychologists and policymakers in understanding some of the factors that can be modified effectively in fostering entrepreneurial intention.

Further, the results of this study have opened up new areas of research, because the present study employed a survey approach, hence an experimental design can be used subsequently to foster entrepreneurial intention among these undergraduates. Finally, it is worthy of note that this study has filled up the gap in literature about factors responsible for fostering entrepreneurial intention among undergraduates since most of the researches earlier carried out, to the knowledge of the researcher, have been on nascent entrepreneurs or those who are fully entrepreneurs.

## 5.6 **Recommendations**

- i. Entrepreneurship training should be made compulsory at all levels of learning from primary schools to the tertiary institutions. This will assist the students change their mentality about getting white collar jobs compulsorily after graduation.
- ii. The curriculum should be tailored towards learning the skills for starting businesses after graduation from school, thus changing the orientation of the students at an early stage towards entrepreneurship. For instance, some of the potent psychological factors in the study can be taught to the students to assist them develop their entrepreneurial skills.

- iii. There should be the financing and supporting of educational programmes by policymakers especially in the area of personnel to assist in the proper training of these undergraduates.
- iv. Collaboration between those who are entrepreneurs and the tertiary institutions should be encouraged, so that the entrepreneurs can have the opportunity of sharing their experiences and thus, contribute to the training of the students for self-employment.

#### 5.7 Suggestions for further study

The following suggestions are made based on the findings of the study:

Future study can be extended to undergraduates in other parts of the country, so that generalisation is not made on the issue of entrepreneurship. This study is also limited only to federal and state universities; it should be replicated in private Universities, colleges of education and even the technical schools in order to get their feel about entrepreneurial intention. Further, a number of variables other than the ones examined in the study can be further studied. Such variables are parental background, prior experience, socio-economic status and human capital.

In addition, the government of Nigeria and indeed, the educational controlling body (NUC) should enforce the start-up of entrepreneurial education in all schools. This should not be limited only to tertiary institutions. The secondary school level should not be left out because it is not everyone who has the opportunity of moving further into the tertiary institutions. Finally, a similar study can also be replicated at the secondary schools in order to create awareness at this level and also prepare them for the task of entrepreneurship after leaving secondary school especially for those who will not be able to move farther than the secondary level in their academic pursuit.

#### REFERENCES

- Abe, C. V. 1995. A causal model of some psycho-social variables as determinants of achievement in secondary school social studies. Unpublished Ph.D dissertation, University of Ibadan, Ibadan.
- Acemoglu, D., Johnson, S and Robinson., J.A 2002. Reversal of fortune: Geography and institutions in the making of the modern world income distribution. *Quarterly Journal of Economics* 51.6:1231–1294.
- Adeleke, J. O. 2007. Identification and effect of cognitive entry characteristics on students' learning outcomes in bearing in Mathematics, Unpublished Ph. D Thesis, University of Ibadan.
- Adeyemo, D.A. 2007. Moderating Influence of emotional intelligence on the link between academic self-efficacy and achievement of university students: *Psychology and Developing Societies* 19.2:199–213
- Adeyemo, D.A. and Ogunyemi, B 2005. Emotional intelligence and self-Efficacy as predictors of occupational stress among academic staff in a Nigerian university. *Electronic Journal of Organisational Learning and Leadership*, 4.
- Adeyemo, D.A. 2005.Parental involvement, interest in schooling and school environment as predictors of academic self-efficacy among fresh secondary school students in Oyo State, Nigeria. *Electronic Journal of Research in Educational Psychology*, 5-3.1:163-180.
- Adler, P. S. and Kwon, S. W. 2002. Social capital: prospects for a new concept. *Academy of Management Review* 27.1:17 – 40.
- Ahl, H. 2006. Why research on women entrepreneurs needs new directions. *Entrepreneurship Theory and Practice*, 30:595–621.
- Ajzen, I. and Fishbein, M. 1980. Understanding Attitudes and Predicting Social Behaviour. Englewood Cliffs, NJ.: Prentice-Hall.
- Ajzen, I. 1991. The theory of planned behaviour. Organisational Behaviour and *Human Decision Processes* 50.2:1-63.
- Ajzen, I. 2001. Nature and operation of attitudes. *Annual Review of Psychology*, 52:27-58.
- Ajzen, I. 2002. Perceived behavioural control, self-efficacy, locus of control and the theory of planned behaviour. *Journal of Applied Social Psychology*, 32(4): 665 683.
- Akinboye, J.O. 2003. Creativity, Innovation and Success. Stirling- Holden Publishers (Nigeria) Ltd. Ibadan: Oyo State, Nigeria.

- Alarape, A. 2008. On the road to institutionalising entrepreneurship education in Nigerian universities. *International Journal of Management Education* 7(2)81-87.
- Albert, I. O. 2000. Economics of Youth Criminality. A Paper Presented on the Methodological Workshops on Economics of Criminality in South-Western Nigeria, Lady Bank Anthony Hall Institute of African Studies, University of Ibadan, April, 11, CODESRIA/MacArthur Foundation.
- Aldrich, H. 1999, Organisations Evolving, London, Sage.
- Alvarez, S. and Barney, J. 2005. How do entrepreneurs organise firms under conditions of uncertainty? *Journal of Management*, 31.5:776–793.
- Amabile, T.M., Barsade, S.G., Mueller, J.S. and Staw, B.M. 2005. Affect and creativity at work. *Administrative Science Quarterly*, 50: 367-403.
- Amabile, T.M. 1998. *How to Kill Creativity*, Harvard Business Review, 77-87.
- Antonites, A, J. 2003. An action learning approach to entrepreneurial creativity, innovation and opportunity finding. Unpublished Doctoral Thesis. Pretoria, University of Pretoria.
- Arch, E. 1993. Risk-Taking: a motivational basis for sex differences, *Psychological Reports* 73: 3:6-11.
- Ardichvili, A., Cardozo, R., and Ray, S. 2003. A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing*, 18.1:105-123.
- Aremu, A.O. 2005. A confluence of credentialing, career experience, self-efficacy, emotional intelligence and motivation on the career commitment of young police in Ibadan. Policing: An International Journal of Police Strategies and Management, 28.4: 609 – 618.
- Asher, H.B. 1977. *Causal modelling*. Sage University paper series No 07-003 London: Sage publication
- Atkinson, J. W. 1957. *Motives in fantasy, action, and society*. Princeton, NJ: Van Nostrand.
- Autio, E., Keeley, R., Klofsten, M., Parker, G., and Hay, M. 2001. Entrepreneurial intent among students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, 2.2:145-160.
- Autio, E., Keeley, R.H., Klofest, M. and Ulfsted, T. 1997. *Entrepreneurial Intent Among Students: Testing on Intent Model in Asia, Scandinavia and in the USA*. Retrieved on May 16, 2010 http://www.babson.edu/entrep/fer/paper.
- BAA, 2001. *Backing Australia's Ability: An innovation action plan for the future*. Retrieved Jan.20,2010 http://backingaus . innovation.gov.au/docs/statement/backing\_Aust\_ability.pdf

- BAA 2003. Backing Australia's Ability: The Australian Government's innovation report 2003- 2004. Retrived Jan.20, 2010 http://backingaus.innovation.gov.au/docs/BAA03-04.pdf
- Babalola, S.S. 2009. Women entrepreneurial innovative behaviour: the role of psychological capital. *International Journal of Business and Management*, 4.11:184-192.
- Bagozzi, R., Baumgartner, H., and Yi, Y. 1992. State vs. action orientation and the theory of reasoned action. *Journal of Consumer Research* 18.4:505-518.
- Banaji, M. R., and Greenwald, A. G. 1995. Implicit stereotyping and judgments of fame. *Journal of Personality and Social Psychology*, 68:181–198.
- Bandura, A. 2002. Social cognitive theory in cultural context. *Journal of Applied Psychology: An International Review*, 51:269–290.
- Bandura, A. 2001. Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52:1-26.
- Bandura, A. 1998. Health promotion from the perspective of social cognitive theory. *Psychology and Health*, 13:623-649.
- Bandura, A. 1997. Self-efficacy: The exercise of control. New York: Freeman.
- Bandura, A. 1995. Self-Efficacy in Changing Societies. New York, NY: Cambridge University Press.
- Bandura, A. 1994. Self-efficacy. *Encyclopaedia of psychology* (2<sup>nd</sup> ed.). R. J. Corsini Ed. 3:368-369. New York: Wiley.
- Bandura, A. 1992 Exercise of personal agency through the self-efficacy mechanisms. *Self-efficacy: Thought control of action.* R. Schwarzer Ed. Washington, DC: Hemisphere.
- Bandura, A. 1989. Human agency in social-cognitive theory. *American Psychologist* 44:1175-1184.
- Bandura, A. 1986. The explanatory and predictive scope of self-efficacy theory. *Journal of Clinical and Social Psychology*, 4:359-373.
- Bandura, A. 1981. The assessment and predictive generality of self-precepts of efficacy. *Journal of Behaviour Therapy and Experimental Psychiatry*, 13: 195-199.
- Bandura, A. 1982. Self-efficacy mechanism in human agency. *American Psychologist*, 37:122-147.
- Bandura, A. 1977. Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review*, 84.2:191-215.

- Bandura, A., Adams, N.E., and Beyer, J. 1977. Cognitive processes mediating behavioural change. *Journal of Personality and Social Psychology*, 35.3:125-139.
- Bandura, A., Barbaranelli, C., Caprara, G. V., and Pastorelli, C. 2001. Self-efficacy beliefs as shapers of children's aspirations and career *trajectories*. *Child Development*, 72:187–206.
- Bandura, A., Pastorelli, C., Barbaranelli, C., and Caprara, G. V. 1999. Self-efficacy pathways to childhood depression. *Journal of Personality and social Psychology*, 76:258-269.
- Banaji, M. R., and Greenwald, A. G. 1995. Implicit gender stereotyping in judgments of fame. *Journal of Personality and Social Psychology*, 68:181-198.
- Bar- On, R. 2000. Emotional and Social intelligence: Insights from the Emotional Quotient Inventory( EQI). *Handbook of Emotional Intelligence*. R. Bar-On and J.D. Parker eds. San Franscisco.
- Bar-On, R. 2005. The impact of emotional intelligence on subjective well-being. *Perspectives in Education*, 23.2:41-61.
- Baron, R.A. 1998. Cognitive mechanisms in entrepreneurship: why and when entrepreneurs think differently than other people, *Journal of Business Venturing*, 13:275–294.
- Baron, R. A. and Markman, G. D. 2002. Beyond social capital: the role of entrepreneurs' social competence in their financial success. *Journal of Business Venturing* 18.1: 41 60.
- Baron, R. A. and Markman, G. D. 2000. Beyond social capital: how social skills can enhance entrepreneur's success. *Academy of Management Executive* 14: 106 116.
- Baron, R. A. 1990. Environmentally-induced positive affect: Its impact on selfefficacy, task performance, negotiation, and conflict. *Journal of Applied Social Psychology*, 20:368-384.
- Barron, F. X., & Harrington, D. M. 1981. Creativity, intelligence, and personality. Annual Review of Psychology, 32:439–476.
- Basadur, M. 2004. Leading others to think creatively together, *The Leadership Quarterly*, 15: 103-121.
- Bastian, V. A., Burns, N. R. and Nettelbeck, T. 2005. Emotional intelligence predicts life skills, but not as well as personality and cognitive abilities. *Personality and Individual Differences*, 39: 1135–1145
- Baum, J.R. and Locke, E.A. 2004. The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, 89.4:587-598.

- Baum, J. R., Locke, E. A., and Smith, K. G. 2001. A multi-dimensional model of venture growth. *Academy of Management Journal*, 44.2:292–303.
- Blau, D., 1987, A time series analysis of self-employment, *Journal of Political Economy* 95:445-467.
- Bedwell, S. 2003. Emotional Judgment Inventory (EJI): Administration and technical annual Institute for Personality and Ability Testing, Inc.; Champaign, IL.
- Begley, T. and Tan, W.L. 2001. The socio-cultural environment for entrepreneurship: a comparison between East Asian and Anglo countries'. *Journal of International Business Studies*, 32: 537-554.
- Begley, T. and Boyd, D. 1987. A Comparison of Entrepreneurs and Managers of Small Business Firms. *Journal of Management*, 13: 99-108.
- Begley, T. M. and Boyd, D. P., 1986. Psychological characteristics associated with Entrepreneurial Performance. *Frontiers of Entrepreneurship Research*, R. Ronstadt Ed. Babson Center for Entrepreneurial Studies, Wellesley, Mass., 146-165.
- Bellamy, A., Gore, D and Sturgis, J. 2005. Examining the relevance of emotional intelligence within educational programmes for the gifted and talented. *Electronic Journal of Res. Educational Psychology*, 3.2: 53-78
- Bellu, R. R. 1988.Entrepreneurs and Managers: Are They Different? Frontiers of Entrepreneurship Research, P.D., Reynolds, Birley, S., Butler, J. E., Bygrave, W. D., Davidsson, P., Gartner W. B. and McDougall, P. P. Eds. Babson College, MA
- Bem, S.L. 1974. The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42:155–162.
- Betz, N. E. 2004. An expert's perspective: Self-efficacy. *The Career Development Quarterly*, 52: 340-355.
- Betz, N. E. and Hackett, G. 1983. The relationship of mathematics self-efficacy expectations to the selection of science-based college majors. *Journal of Vocational Psychology*, 23.3:329-345.
- Betz, N.E and Hackett, G.1981. The relationship of career-related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology*, 28: 399–410.
- Beverland, M. and Lockshin, L. 2001. Organizational life cycles in small New Zealand Wineries, *Journal of Small Business Management*, 39.4:354-362.
- Bird, B. 1988. Implementing entrepreneurial ideas: The case for intentions. *Academy* of Management Review, 13:442-453.
- Birley, S. 1989. Female entrepreneurs: are they really any different? *Journal of Small Business Management* 27.1: 32 -37.

- Birley, S. 1985. The role of networks in the entrepreneurial process. *Journal of Business Venturing* 1.1:107 117.
- Bird, B. 1989. Entrepreneurial Behaviour. USA: case Western Reserve University.
- Blalock,H.M. 1964. Causal inference in non-experiential research. New York: Norton
- Boone, C., De Brabander, B. and Van Witteloostuijn, A. 1996. CEO locus of control and small firm performance: An integrative framework and empirical test. *Journal of Management Studies*, 33: 667-699.
- Bonnett, C. and Furnham, A. 1991. Who wants to be an entrepreneur? A study of adolescents interested in a young enterprise scheme. *Journal of Economic Psychology*, 12: 465 478.
- Booth, A.L. and Nolen, P.J. 2009. Gender Differences in Risk Behaviour: Does Nurture Matter? *Discussion Paper* No. 4026
- Boyd, N.G. and Vozikis, G.S. 1994 .The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice* 18.4: 63-77.
- Bowen, D. and Hisrich, R. 1986. The Female Entrepreneur: A Career Development Perspective. *Academy of Management Review*, 392-407.
- Brown, I. Jr. and Inouye, D. K. 1978. Learned helplessness through modelling: The role of perceived similarity in competence. *Journal of Personality and Social Psychology*, 36: 900-908.
- Brockhaus, R. H. 1975. I-E locus of control scores as predictors of entrepreneurial intentions. *Academy of Management Proceedings*, 433-435.
- Brockhaus, R.H. 1980. Risk taking propensity of entrepreneurs. Academy of Management Journal 23.3:509–520.
- Brockhaus, R. 1982. The Psychology of the Entrepreneur. *Encyclopaedia of Entrepreneurship*. C. Kent, D. Sexton & K. H. Vesper Eds. Englewood Cliffs, NJ: Prentice-Hall.
- Brockhaus R.H. and Horwitz, P.S1986. The Psychology of Entrepreneurship. *The Art and Science of Entrepreneurship*, In: D.L. Sexton & R.W. Smilor eds. Cambridge, MA.: Ballinger.
- Brush, C., Carter, N., Gatewood, E., Greene, P. and Hart, M. 2004. *Clearing the Hurdles: women building high-growth Businesses*. Saddle River, NJ: Financial Times Prentice Hall Books.
- Brush, C.G. 1992. Research on women business owners: Past trends, a new perspective and future directions. *Entrepreneurship Theory and Practice*, 16.4:5–30.

- Bryant, L. T. and Doran, R. L. 1977. A Path analysis model of secondary school physics enrolment. *Journal of Research in Science Teaching* 14.3: 177-179.
- Burt, R.S. 1992. Structural Holes: The Social Structure of Competition. Cambridge, MA: Harvard Business Press.
- Burt, R. S. 1997. The contingent value of social capital. *Administrative Science Quarterly*, 42.2: 339–365.
- Budner, S. 1982. Intolerance of ambiguity as a personality variable. *Journal of Personality*, 30: 29–50.
- Bussey, K. and Bandura, A. 1999. Social cognitive theory of gender development and differentiation. *Psychological Review*, 106: 676-713.
- Bygrave, W. 1997. The Portable MBA in Entrepreneurship, Wiley, New York, NY.
- Bygrave, W.D. 1989. The entrepreneurship paradigm: a philosophical look at research methodologies. *Entrepreneurship Theory and Practice*, 14.1:7-26
- Byrnes, J., Miller, D.C and Schafer, W.D. 1999. Gender differences in risk taking: a meta- analysis, *Psychological Bulletin* 125:367-383
- Chaganti, R. 1986. Management in women-owned enterprises. Journal of Small Business Management, 18-29.
- Campbell, A., Converse, P., Miller, W.E. and Stokes, D. 1960. *The American Voter*. New York: John Wiley.
- Carayannis, E., Evans, D. and Hanson, M. 2003, A cross-cultural learning strategy for entrepreneurship education: outline of key concepts and lessons learned from a comparative study of entrepreneurship students in France and the US, *Technovation*, 23.9:757.
- Carland, J. A., Carland, J.W and Stewart, W.H .1996. Seeing what's not there: the enigma of entrepreneurship. *Journal of Small Business Strategy*, 7.1:1–20
- Calvert, G. 1993. *Risk attitudes inventory*. Highwire Management, Jossey-Bass. 41-46
- Carter, S. 2000. Improving the Numbers and Performance of Women-Owned Businesses: Some implications for Training and Advisory Services, Education + Training 42: 326-333.
- Chen, G., Gully, S. M. and Eden, D. 2004. General self-efficacy and self-esteem: Toward theoretical and empirical distinction between correlated selfevaluations. *Journal of Organisational Behaviour*, 25.3:375-395
- Chen, C. C., Greene, P. G. and Crick, A. 1998. Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13:295–316.

- Christie, A., Jordan, P., Troth, A. and Lawrence, S. 2007. Testing the links between emotional intelligence and motivation. *Journal of Management and Organisation*, 13.3: 212-226.
- Chowdhury, S. and Endres, M. 2005. Gender Difference and the Formation of entrepreneurial self-efficacy. Annual USASBE Conference.
- Ciarrochi, J., Chan, A.Y.C. and Caputi, P. 2000. A critical evaluation of the emotional intelligence construct, *Personality and Individual Differences*, 28: 539-561.
- Cliff, J.E. 1998. Does one size fit all? Exploring the relationship between attitude towards growth, gender, and business size, *Journal of Business Venturing*, 13.6:523-42.
- Coleman, J. S. 1988. Social capital in the creation of human capital. *American Journal of Sociology*, 94:95 121.
- Cox, L.W., Mueller, S.L and Moss, S.E 2002. The impact of entrepreneurship education on entrepreneurial self-efficacy. *International Journal of Entrepreneurship Education*, 1.2:229–247.
- Cromie, S. 1988. Motivations of aspiring male and female entrepreneur, *Journal* of *Occupational Behaviour*, 4: 251-261
- Cromie, S and Johns, S. 1983. Irish entrepreneurs: some personal characteristics. *Journal of Organizational Behaviour*, 4: 317-324.
- Cross, B. and Travaglione, 2003. The untold story: is the entrepreneur of the 21<sup>st</sup> century defined by emotional intelligence? *International Journal of Organisational analysis*. 11.3: 221-228
- Csikszentmihalyi, M. 1996. Creativity. New York, HarperCollins.
- Davidsson, P. 2006. The types and contextual fit of entrepreneurial processes in Burke, A.E. Modern Perspectives on Entrepreneurship, Senate Hall Academic Publishing.
- Davidsson, P. 1995. Determinants of entrepreneurial intentions. Paper presented at the RENT IX Workshop. Jönköping International Business School, Piacenza, Sweden, Retrieved Jan. 12, 2010 http://www.ihh.hj.se/eng/resea rch/publications/wp/1995-1%2Ø Davidsson.pdf
- Davidsson, P. 1989. Continued entrepreneurship and small firm growth. Stockholm School of Economics, Stockholm, Sweden.
- Davidsson, E and Honig, B. 2003. The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18:301-331.
- Dakhli, M. and De Clercq, D. 2004. Human capital, social capital, and innovation: A multicountry study. *Entrepreneurship and Regional Development*, 16.2: 107-129.

- Dawda, D. and Hart, S.D. 2000. Assessing emotional intelligence: Reliability and validity of the Bar-On Emotional Quotient Inventory (EQ-i) in university students. *Personality and Individual Differences*, 28: 797-812.
- Deakins, D. 2000. Twente University Entrepreneurship and Commercialization Programmes. PERC internal report
- DeBono, E. 1996. Serious Creativity. London, HarperCollins Business.
- De Noble, A., Jung, D. and Ehrlich, S. 1999. Entrepreneurial self-efficacy: The development of a measure and its relationship to entrepreneurial action. *Frontiers of entrepreneurship research*. R.D. Reynolds, W.D. Bygrave, S. Manigart, C.M. Mason, G.D. Meyer, H.J. Sapienze, & K.G. Shaver Eds. Waltham, MA: P& R Publication Inc. 73-78.
- DeNoble, A., Ehrich, S. and Singh, G. 2007. Toward the development of a family business self- efficacy scale: A resource-based perspective, *Family Business review* 20.2:127-140.
- Delmar, F. and Shane, S. 2003. Does Business Planning Facilitate the Development of New Ventures? *Strategic Management Journal* 24.12:1165–85.
- Department of Trade and Industry –DTI (2005). South African Women Entrepreneurs. A Special Report. Retrieved October, 3, 2009 from <u>http://www.thedti.gov.za/SAWENreport2.pdf</u>
- Duncan, O. D. 1966. A Path analysis: sociological examples. *American Journal of Sociology* 72.1: 1-16.
- Drnovsek, M. and Glas, M. 2002. The entrepreneurial self-efficacy of nascent entrepreneurs: The case of two economies in transition. *Journal of Enterprising Culture*, 10.2;107-131.
- Drucker, P. 1985. Innovation and entrepreneurship: Practice and principles. New York: Harper and Row.
- Eccles, J. 1994. Understanding women's educational and occupational choices. *Psychology of Women Quarterly*, 18:585-609.
- Eckel, C. and Grossman, P. 2002. Differences in the Economic Decisions of Men and Women: Experimental Evidence. Elsevier Science B.V./North-Holland, Amsterdam, The Netherlands.
- Eso, O.T. 1998. Assessment Procedure and Student Locus of control as determinants of achievement in Integrated Science. An Unpublished Ph.D Thesis, University of Ibadan, Ibadan.
- Estrada, C. A., Isen, A. M., and Young, M. J. 1994. Positive affect improves creative problem solving and influences reported source of practice satisfaction in physicians. *Motivation and Emotion*, 18: 285–299.

- Evans, D. and Leighton, L. S 1989. Some empirical aspects of entrepreneurship, *American Economic Review*. 79: S.519-535.
- Fagenson, E. A. and Marcus, E. C. 1991. Perceptions of the sex-role stereotypic characteristics of entrepreneurs: Women's evaluations. *Entrepreneurship Theory and Practice*, 15.4:33–47.
- Fayolle, A. and Gailly, B. 2004. Using the theory of planned behaviour to assess entrepreneurship teaching programs: a first experimentation. *Int Ent2004 Conference*, Naples (Italy), 5-7 July.
- Faris, S. 1999. Seeking entrepreneurial origins: Are entrepreneurs born or made? CELCEE Digest, Number 99-1.
- Fini R., Grimaldi, R., Marzocchi G.L., Sobrero M., 2009, The foundation of entrepreneurial intention. Research seminars, Center for Strategic Management and Globalization at Copenhagen Business School, Copenhagen, Denmark. Retrieved 22<sup>nd</sup> Feb.2009 from http://ssrn.com/abstract=1313225
- Fishbein, M. and Ajzen, I. 1975. Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research. Boston, MA: Addison Wesley.
- Forbes, D.F.2005. The effects of strategic decision making on entrepreneurial selfefficacy, *Entrepreneurship Theory and Practice*, 29.5:599-626.
- Forlani, D. and Mullins, J. W. 2000. Perceived risks and choices in entrepreneurs' new venture decisions. *Journal of Business Venturing*, 15.3:305-322.
- Frazier, B.J. and Niehm, L.S. 2004. Exploring business information networks of small retailers in ural communities. *Journal of Developmental Entrepreneurship*, 9: 23-42.
- Fukuyama, F. 1997, Trust: The social virtues and the creation of prosperity. New York: Free Press.
- Fukuyama, F. 1995. *Trust: Social Virtues and the Creation of Prosperity*. NY: Free Press.
- Galloway, L. and Brown, W. 2002. Entrepreneurship education at university: a driver in the creation of high growth firms? *Education and Training*, 44.8/9:398-405.
- Gatewood, E., Shaver, K., Powers, J. and Gartner, W. 2002. Entrepreneurial expectancy, task, effort and performance. *Entrepreneurship Theory and*. *Practice*, 27:187-206.
- Gatewood, E. J., Shaver, K. G. and Gartner, W. B. 1995. A longitudinal study of cognitive factors influencing start-up behaviours and success at venture creation. *Journal of Business Venturing*, 10:371-391.
- Gartner, W. B. 1988. Who is an Entrepreneur? Is the wrong Question. *American Journal of Small Business*, 12..4:11 32.

- Gasse, Y. 1985. A strategy for the promotion and identification of potential entrepreneurs at the secondary level. *Frontiers of entrepreneurship research* 1985. Wellesley, MA: Babson College Center for Entrepreneurial Studies. 538-559.
- George, J.M. and Zhou, J. 2002. Understanding when bad moods foster creativity and good ones don't: the role of context and clarity of feelings. *Journal of Applied Psychology*, 87: 687-97.
- Giles, M. and Rea, A. 1999. Career self-efficacy: An application of the theory of planned behaviour. *Journal of Occupational and Organizational Psychology*, 72: 393-399.
- Gist, M. E. 1987. Self-efficacy: Implications for organizational behaviour and human resource management. *Academy of Management Review*, 12:472–485.
- Glynn, A. 2011. The Product and Difference Fallacies for Indirect Effects. 2008 Summer Meeting of the Society for Political Methodology. Department of Government and The Institute for Quantitative Social Sciences Harvard University, 1737 Cambridge Street, Cambridge, Pp1-31
- Goleman, D. 2006. Social Intelligence: The Revolutionary New Science of Human Relationships New York: Random House.
- Goleman, D. 1995. *Emotional intelligence*. New York: Bantam Books.
- Gomez-Mejia, L. R. and Balkin, D. B. 1989. Effectiveness of individual and aggregate compensation strategies. *Industrial Relations*, 28:431–445.
- Gough, H. G. 1979. A creative personality scale for the Adjective Check List. Journal of Personality and Social Psychology, 37: 1398-1405.
- Gough, H. G. and Heilbrun, A. B. 1965. *The Adjective Check List manual*. Palo Alto, CA: Consulting Psychologists Press.
- Granovetter, M. S. 1992. Problems of explanation in economic sociology. *Networks* and organizations: Structure, form and action. N. Nohria, & R. Eccles Eds. Boston: Harvard Business School Press. 25–26.
- Granovetter, M. S.: 1983, The strength of weak ties. A network theory revisited. Sociological Theory. R. Collins ed.. Jossey-Bass, San Francisco, 201–233.
- Grantz, M. 1999. Do you have the power to succeed? Advanced Psychology. Spring
- Grootaert, C. and van Bastelaer, T 2001. Understanding and measuring social capital: a synthesis of findings and recommendations from the social capital initiative. Social Capital Initiative Working Paper No. 24. The World Bank, Washington, D.C. assessed on 23<sup>rd</sup> Dec, 2009

Guildford, J. 1950. Creativity. American Psychologist, 5.9:444-459.

- Gupta, V. K., Turban, D., Wasti, S. A., and Sikdar, A. 2005. Entrepreneurship and stereotypes: Are entrepreneurs from Mars or from Venus? In K. M. Weaver (Ed.), Academy of Management Best Paper Proceedings [CD ROM]. Honolulu, HI: Academy of Management.
- Hackett,G and Betz, N.E 1981.A self-efficacy approach to the career development of women. *Journal of Vocational Behaviour*, 18:326–339.
- Heilman, M. E. 2001. Description and prescription: How gender stereotypes prevent women's ascent up the organisational ladder. *Journal of Social Issues*, 57:657–674.
- Hechter M. and Borland, E. 2001. National self-determination: the emergence of an international norm in Social Norms Ed by M. Hechter and K. Opp pp. 186-233, Russell Sage Foundation New York.
- Hermansen-Kobulnicky, C.J and Moss, C.L. 2004. Pharmacy student entrepreneurial orientation: A measure to identify potential pharmacist entrepreneurs. *American Journal of Pharmacy Education*, 68.5:1-10.
- Hisrich, R. D. and Peters, M. P. 2002. *Entrepreneurship*, 5th Edition, Boston: McGraw- Hill/Irwin.
- Hisrich R. D. and Peters, M.P. 1998. *Entrepreneurship*, 4th ed n. New York : Prentice Hall.
- Hisrich, R. D. 1990. Entrepreneurship Intrapreneurship. *American Psychologist* 45.2: 209-222.
- Hisrich, R. D. and Brush, C. G 1984. The woman entepreneur: Management skills and business problems. *Journal of Small Business Management* 22.1: 30-38.
- Higgins, L.F. 1999. Applying principles of creativity management to marketing research efforts in high-technology markets, *Industrial Marketing Management*, 28: 305-317.
- Hollenbeck, G. and Hall, D.T. 2004. Self-confidence and leader performance. *Organizational Dynamics*, 33.3:254–269.
- Honig, B. 1998. What determines success? Examining the human, financial, and social capital of Jamaican entrepreneurs. *Journal of Business Venturing* 13 .5:371 – 394.
- Hull, D. L., Bosley, J. J. and Udell, G. G. 1980. Renewing the Hunt for the Heffalump, Identifying Potential Entrepreneurs by Personality Characteristics. *Journal of Small Business*, 18.1:11 18.
- Igwe, G. O. 1991. Impact of Behavioural Objectives, Cognitive Entry Behaviour and Locus of Control Paradigm on Student Learning Outcomes. (Unpublished Ph.D Thesis) University of Ibadan

- Isaksen E.J. 2006. Early business performance. Initial factors effecting new business outcomes. Bodø Graduate School of Business: Bodø
- Isen, A. M. 1999. Positive affect and creativity. *Affect, creative experience, and psychological adjustment*. S. W. Russ Ed. Philadelphia: Brunel/Mazel. 3–17.
- Isen, A. M., Daubman, K. A., and Nowicki, G. P. 1987. Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology*, 52:1122–1131.
- Isen, A. M., Johnson, M. M., Mertz, E., and Robinson, G. F. 1985. The influence of positive affect on the unusualness of word associations. *Journal of Personality* and Social Psychology, 48:1413–1426.
- Jae, J. H. 1997. Emotional intelligence and cognitive ability as predictors of job performance in the banking sector. Unpublished master's thesis, Ateneo de Manila University, Manila, Philippines. Abstract retrieved February 4, 2010 from http://www.emotionalintelligencemhs.Com/ EI Research By Topic.
- Jarillo, J. C. 1989 Entrepreneurship and growth: the strategic use of external resources. *Journal of Business Venturing* 4.2:133 147.
- Jones, K., and Tullous, R. 2002. Behaviours of pre-venture entrepreneurs and perceptions of their financial needs. *Journal of Small Business Management*, 40.3: 233-248.
- Jordan, P. J., Ashkanasy, N. M., Härtel, C. E. J., and Hooper, G. S. 2002. Workgroup emotional intelligence: Scale development and relationship to team process effectiveness and goal focus. *Human Resource Management Review*, 12:195– 214.
- Kao, J.J. 1989. Entrepreneurship, Creativity and Organization: Text, Cases and Readings. Prentice Hall, Englewood Cliffs, New Jersey.
- Keogh, W. and Galloway, L. 2004. Teaching enterprise in vocational disciplines: reflecting on positive experience. *Decision Management*, 42.3/4:531-547.
- Kerlinger, F.N and Lee, H.B. 2000. Foundations of behavioural research (4<sup>th</sup> ed.). Fort Worth, TX: Harcourt.
- Kerlinger, F.N. and Pedhazur, E.J. 1973. *Multiple regression in behavioural research*. New York: Holt, Rinehart, and Winston.
- Kets de Vries, M.F.R. 1977. The Entrepreneurial Personality: A Person at the Cross Roads. *Journal of Management Studies*, 14.1:34-57.
- Kickul, J., Wilson, F., and Marlino, D. 2004. Are Misalignments of Perceptions and Self Efficacy Causing Gender Gaps in Entrepreneurial Intentions Among Our Nations' Teens? Manuscript Presented at Babson-Kauffman Research Conference, Glasgow, Scotland.

- Kirton, M. 1976 Adaptors and Innovators: A Description and a Measure, *Journal of Applied Psychology*, 61.5:622- 629
- Kirzner, I. M. 1997. Entrepreneurial discovery and the competitive market process: An Austrian approach. *The Journal of Economic Literature*, 35:60-85.
- Kirzner, I. M. 1973. *Competition and entrepreneurship*. Chicago: The University of Chicago Press.
- Knack, P. and Keefer, S. 1997. Does Social Capital Have an Economic Payoff? A Cross- Country Investigation, *The Quarterly Journal of Economics*, 112:1251– 1288.
- Koestler, A. 1969. *The Act of Creation*. Danube edition, Hutchinson & Co, London.
- Koch, L.T., 2003, Theory and Practice of Entrepreneurship Education: a German View. *International Journal of Entrepreneurship Education* 1.4:633-660
- Korunka, C., Frank, H., Lueger, M., and Mugler, J. 2003. The entrepreneurial personality in the context of resources, environment, and the startup process-A configurational approach. *Entrepreneurship Theory and Practice*, 28.1:23-42.
- Kolvereid, L and Isaksen, E. 2006. New business start-up and subsequent entry into self-employment. *Journal of Business Venturing* 21: 866-885
- Kolvereid L. 1996. Prediction of employment status choice intentions. Entrepreneurship Theory and Practice 21.1: 47-57
- Kourilsky, M.L and Walstad, W.B. 1998. Entrepreneurship and female youth: knowledge, attitudes, gender differences, and educational practices, *Journal of Business Venturing*, 13:77-88.
- Krishna, A. and Uphoff, N. 2002, Mapping and Measuring Social Capital through Assessment of Collective Action to Conserve and Develop Watersheds in Rajasthan, India, in Grootaert C., van Bastelaer T., The Role of Social Capital in Development. An Empirical Assessment, Cambridge, Cambridge University Press.
- Krueger, N. 1993. The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship: Theory and Practice* 18.1: 5-21.
- Krueger, N. F., Jr., and Dickson, P. R. 1994. How believing in ourselves increases risk taking: Perceived self-efficacy and opportunity recognition. *Decision Sciences*, 25, 385–400.
- Krueger, N.F. and Brazeal, D.V. 1994. Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory & Practice*, 18.3:91-104.
- Krueger, N.F., Reilly, M.D. and Carsrud, A.L. 2000. Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15:411-432.

- Kuip, I. and Verheul, I. 2003. Early Development of Entrepreneurial Qualities: The Role of Initial Education, EIM Business & Policy Research, SCALES-paper N200311.
- Kyrö, P. and Carrier, C. 2005. Entrepreneurial learning in universities: bridges across borders. Kyrö, P. and Carrier, C. Ed.: *The dynamics of learning entrepreneurship in a cross-cultural university context*, University of Tampere, Hämmeenlinna, 14-43.
- Land, K.1969. Principles of path analysis. *Sociological Methodology*, Edgar F. Borgatta ed. An francis- co: Jossey-Bass
- Langlois, R. N. and Cosgel, M 1993. Frank Knight on Risk, Uncertainty, and the Firm: A New Interpretation, *Economic Inquiry* 31: 456-65.
- Lee, L., Wong, P., Chen, J. and Chua, B. 2005. Antecedents for entrepreneurial propensity: Findings from Singapore, Hong Kong and Taiwan. NUS Entrepreneurship Centre Working Papers, Retrieved Feb.20, 2011, http://www.nus.edu.sg/nec/publications/ papers/ WP2005-06.pdf
- Lee, S.H. and Wong, P.K. 2004. An exploratory study of technopreneurial intentions: a career anchor perspective, *Journal of Business Venturing*, 19:7–28.
- Lefcourt, H. M. (Ed.). 1981. *Research with the locus of control constructs* Vol. 1: Assessment methods. London: Academic Press.
- Lent, R. W., Brown, S. D. and Hackett, G. 1994. Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behaviour*, 45: 79–122.
- Lewis, P. 2006. The quest for invisibility: Female entrepreneurs and the masculine norm of entrepreneurship. *Gender, Work & Organisation*, 13:453–469.
- Liles, P. R. 1974. New Business Ventures and the Entrepreneur. Homewood, Illinois.
- Lin, N. 2003. Social capital, a theory of social structure and action, Cambridge University Press, Cambridge.
- Liñán, F. 2005. Development and validation of an Entrepreneurial Intention questionnaire (EIQ).IntEnt2005 Conference, Guildford (United Kingdom), 10-13
- Loasby, B. J. 2002. The Significance of Penrose's Theory for the Development of Economics, in Christos Pitelis, ed., The Growth of the Firm: The Legacy of Edith Penrose. Oxford: Oxford University Press, 45-59.
- Locke, E. A., Frederick, E., Lee, C., and Bobko, P. 1984. Effect of self-efficacy, goals, and task strategies on task performance. *Journal of Applied Psychology*, 69:241–251.
- Locke, E. A., and Latham, G. P. 1990. *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice-Hall.

- Lopes, P. N., Salovey, P., and Straus, R. 2003. Emotional intelligence, personality and the perceived quality of social relationships. *Personality and Individual Differences*, 35: 641–658.
- Lubart, T. I. 1994 Creativity. *Thinking and Problem Solving*, Sternberg, R.J. Ed. New York: Academic. 289-332.
- Lussier, R.N. 2008. Human Relations in Organizations Applications and Skill Building. 7th ed.
- Luszczynska, A., Gutie'rrez-Don<sup>°</sup>a, B and Schwarzer, R 2005.General self-efficacy in various domains of human functioning: Evidence from five countries. *International Journal of Psychology*, 2005, 40.2:80–89.
- Lüthje, C. and Franke, N. 2002. Fostering Entrepreneurship Through University Education And Training: Lessons From Massachusetts Institute Of Technology. This paper was presented at the Second European Academy of Management: Innovative Research in Management Conference. Stockholm, Sweden. 9-11 2002.
- Lyubomirsky, S., King, L. A. and Diener, E. 2005. The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131.6:803–851.
- Maccoby, E. E. 1998. *The Two Sexes: Growing up Apart, Coming Together*. Cambridge Ma: Harvard University Press.
- MacCallum, R. C. and Austin, J. T. 2000. Applications of structural equation modelling in psychological research. *Annual Review of Psychology*, 51:201-226
- McWilliams, F.J. and Saskatchewan, 1998. effects of students success course on achievement, self-efficacy and locus of control. Unpublished Master Thesis. Canada: University of Regina
- Marlow, S. and Patton, D. 2005. All credit to men? Entrepreneurship, finance, and gender. *Entrepreneurship Theory and Practice*, 29: 717–735.
- Martinez-Pons, M. 1997. The relation of emotional intelligence with selected areas of personal functioning. *Imagination, Cognition and Personality*, 17, 3–13.
- Mauldin, S., Grain, J. L. and Mounce P. H. 2000. The accounting principles instructor's influence on students' decision to major in accounting. *Journal of Education for Business*, 75.3:42-148.
- Marlino, D. and Wilson, F. 2003. Teen Girls on Business: Are They Being Empowered? Full Report. Boston, MA and Chicago, IL: Simmons School of Management and The Committee of 200.
- Markman, G.D., Balkin, D.B. and Baron, R.A. 2002. Inventors and new venture formation: The effects of general self-efficacy and regretful thinking. *Entrepreneurship: Theory &Practice*, 27.2:149-165.

- Mayer, J.D. and Salovey, P. 1997. What is emotional intelligence? *Emotional Development and Emotional Intelligence: Implications for Educators*. Salovey, P. and Sluyter, D. Eds. Basic Books, New York, NY, pp. 3-31. IJEBR 15,6 616
- McClelland, D. C. 1961. The Achieving Society, D. Van Norstrand Co Inc., Princeton, New Jersey.
- McGee J.E., Peterson, M., Mueller S. L. and Sequeira. J. M. 2009.Entrepreneurial Self Efficacy: Refining the Measure, Entrepreneurship: theory and practice, 33(4): 965-988.
- McKinnon, D. W. 1965. Personality and the realization of creative potential. *American Psychologist*, 20:273–281.
- McWilliams, F.J. and Saskatchewan, 1998. Effects of students success course on achievement, self-efficacy and locus of control. Unpublished Master Thesis. Canada: University of Regina
- Meehl, P.E. and Waller, N. G. 2002. The path analysis controversy: A new statistical approach to strong appraisal of Verisimilitude. *Psychological Methods*, 7,283-300
- Meyer, G.D.2001. Major unresolved issues and opportunities in entrepreneurship education,
- Coleman White Paper, USASBE/SBIDA Joint National Conference, February 8, 2011, Orlando FL. Retrieved August 10, 2009 http://www.usasbe.org/pdf/CWP-2001-meyer.pdf
- Menzies, T. V., Diochon, M and Gasse, Y 2004. Examining Venture-related Myths Concerning Women Entrepreneurs, *Journal of Developmental Entrepreneurship* (9) 89-107.
- Mitchell, P.C. and McKeon, A.E. 2004. Importance of peer support and tutor involvement in entrepreneurship education for overseas bioscience students" BEE-j, Vol 3, May 2010. Retrieved August 10, 2009 http://bio.ltsn.ac.uk/journal/voln/beej-3.2.htm.
- Minniti, M. and Bygrave, W. 2003. US Global entrepreneurship Monitor: 2003 Executive Report. Retrieved August 9, 2010 http://www.kauffman. org/pdf/gem\_2003\_us\_report.pdf
- Minniti, M., Arenius, P and Langowitz, N. 2005. Global Entrepreneurship Monitor 2004 Report on Women and Entrepreneurship, Babson College: The Centre for Women's Leadership and London Business School.
- Morello, V.L., Deschoolmeester, D and Garcia, E.A. 2003. Entrepreneurial intentions of Undergraduates at ESPOL in Ecuador. Report de investigacion realizada con fondons de proyecto semilla CICYT- ESPOL. Pp 1-23.
- Mueller, S.L 2004. Gender gaps in potential for entrepreneurship across countries and cultures. *Journal of Developmental Entrepreneurship*, 9.3:199–220.

- Mueller, S.L and Goic, S .2003. East-West differences in entrepreneurial selfefficacy: Implications for entrepreneurship education in transition economies. *International Journal of Entrepreneurship Education*, 1.4:613-632
- Nahapiet, J. and Ghoshal, S. 1998. Social Capital, Intellectual Capital and the Organisational Advantage. *Academy of Management Review*, 23: 242-267.
- National Bureau of statistics. 2010. Labour Force Survey March, 2009. Abuja, Nigeria.
- National Bureau of statistics. 2008. Labour Force Survey March, 2007. Abuja, Nigeria
- Newsome, S., Day, A.L. and Catano, V.M. 2000. Assessing the predictive validity of emotional intelligence. *Personality and Individual Differences*, 29:1005-1016.
- Nosek, B. A., Banaji, M. R. and Greenwald, A. G. 2002. Math \_ male, me \_ female, therefore math \_ me. *Journal of Personality and Social Psychology*, 83:44–59
- Nwachukwu, O.C. 1995. CEO locus of control, strategic planning, differentiation, and small business performance: A test of a path analytic model. *Journal of Applied Business Research*, 11: 9-14.
- Obadan,M.I and Odusola, A. F. 2000, Productivity and Unemployment in Nigeria, Retrieved June 10, 2010 www.cenbank.0rg.out/publications/occassionalpapers/rd/2000/abe-00-10.pdf
- Oladeji, S. I. 1994. Absorption of educated manpower into Nigeria's informal sector. Diagnostic Studies National Manpower Board.
- Pajares, F. 2002. Overview of social cognitive theory and of self-efficacy. Retrieved August 11, 2010, from http://www.emory.edu/education/mfp/eff.html
- Panzano. P. C. and Billings, R.S. 2005. An organisational level test of a partially mediated model of risky decision-making behaviour, Retrieved Dec, 2009. from Http://www.dssincorporated.com/Research/RiskyDecision/risky.html.
- Pedhazzur, E. J. 1997. *Multiple regression in behavioural research*. New York: Wadsworth.
- Peterman, N. E. & Kennedy, J. 2003. Enterprise education: Influencing students' perceptions of entrepreneurship. *Entrepreneurship-Theory and Practice*, 28.2: 129-144.
- Portes, A. 1998. Social capital: Its origins and applications in modern sociology. Annual Review of Sociology, 24.1: 1.
- Prickel, D. 2000. The Influence of New and Emerging Theories on Teaching practices. In (Ed.), p. 4)

- Pritchard, R., Potter, G. and Saccucci, M. 2004. The selection of a business major: Elements for influencing student choice and implications for outcomes assessment. *Journal of Education for Business*, 79.3:152-157.
- Puccio, G.J., Murdock, M.C. and Mance, M. 2007. *Creative Leadership: Skills that Drive Change*. Sage Publications, Thousand Oaks California.
- Putnam R.D. 1993. The prosperous community: social capital and public life. *American Prospect* 13:35-42.
- QLD 2003. Queensland the Smart State, Investing in science: Research, education and training", Queensland Government Publication. Retrieved Sept. 10, 2009 http://www.sd.qld.gov.au/innovation/publications/smartstate/science.pdf
- Rauch, A. and Frese, M. 2000. Psychological approaches to entrepreneurial success: A general model and an overview of findings. *International review of industrial* and organizational psychology. C. L. Cooper, & I. T. Robertson Eds. Chichester: Wiley. 101-142.
- Robinson, P. B., Stimpson, D. V., Huefner, J. C. and Hunt, H. K. 1991. An Attitude Approach to the Prediction of Entrepreneurship, *Entrepreneurship: Theory and Practice*, 15:13-31.
- Rotter, J. 1966. Generalized expectancies for Internal Versus External Control of Reinforcement. Psychological Monographs: General and Applied, 80 (serial No.609).
- Rotefoss, B. and Kolvereid, L. 2005. Aspiring, nascent and fledgling entrepreneurs: An investigation of the business start-up process. *Entrepreneurship & Regional Development* 17: 109-127.
- Runco, M. 2004. Creativity. Annual Review of Psychology, 55:657-687.
- Russ, S.W. 1993. Affect and creativity. Hillsdale: Lawrence Erlbaum Associates.
- Sagie, A., and Elizur, D. 1999. Achievement motive and entrepreneurial orientation: A structural analysis. *Journal of Organizational Behaviour*, 20.3:375–388.
- Salovey, P. and Mayer, J.D. 1990. Emotional intelligence: Imagination, Cognition, and Intelligence. 9:185-211.
- Female entrepreneurs' personal characteristics and motivation: a review of the Greek situation. *Women in Management Review*. 20.1:24-36.
- Scherer, R.F., Brodzinsky, J.D and Wiebe, F.A.1990. Entrepreneur Career Selection and Gender: A Socialization Approach, *Journal of Small Business Management*, 28: 37-45.
- Schwarzer, R. 1992. Self-efficacy: thought control action. Washington, D.C: Hemisphere.

- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., and Golden, C. J. 1998. Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25:167–177
- Schumpeter, J. A. 1998 Economic Theory and Entrepreneurial History. *Entrepreneurship.* Birley, S. Ed. Aldershot, Dartmouth: Brookfield USA: Ashgate.
- Schunk, D. H. 1981. Modeling and attributional effects on children's achievement: A self-efficacy analysis. *Journal of Educational Psychology*, 73: 93-105.
- Scott, M.F and Twomey, D.F. 1988. The long term supply of entrepreneurs: students' career aspirations in relation to entrepreneurship. *Journal of Small Business Management*, 26.4:5-14.
- Shchaper, M and Volery, T. 2004. Entrepreneurship and small business: A Pacific Rim perspective. Milton, John Wiley& Sons, Australia Ltd
- Segal, G., Borgia, D. and Schoenfeld, J. 2005. The motivation to become an entrepreneur, *International Journal of Entrepreneurial Behaviour & Research*, 11.1:42-57.
- Segal, G., Borgia, D., and Schoenfeld, J. 2002. Using social cognitive career theory to predict self-employment goals. *New England Journal of Entrepreneurship*, 5.2:47-56.
- Seipp, B. 1991. Anxiety and academic performance: A meta-analysis of findings. *Anxiety Research*, 4:27-41.
- Sequeira, J., Mueller, S. L., and Mcgee, J. E. 2007. The influence of social ties and self-efficacy in forming entrepreneurial intentions and motivating nascent behaviour. *Journal of Developmental Entrepreneurship*, 12.3:275–293.
- Sexton, D. L., and Bowman-Upton, N. 1982. Risk-taking propensity of entrepreneurs: Further research. (Working paper No. 0562). Waco, TX: Baylor University, Center for Private Enterprise and Entrepreneurship. Business Management, 29: 45-61.
- Shane, S. 2003. A general theory of entrepreneurship. The individual-opportunity nexus. Edward Elgar Publishing. UK.
- Shane, S. 2000. Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, 11.4:448-469.
- Shane, S., Locke, E. A., and Collins, C. J. 2003. Entrepreneurial motivation. *Human Resource Management Review*, 13.2:257-279.
- Shane, S and Venkataraman S .2003 Guest editor's introduction to the special issue on technology entrepreneurship. *Research Policy*, 32.2:181-184.
- Shane, S. and Venkataraman, S. 2000. The promise of entrepreneurship as a field of research. *Academic Management Review*, 25.1: 217–226.

- Shane, S. 1975. The displaced, uncomfortable entrepreneur. *Psychology Today*. 9:83-88
- Shapero, A. 1982. Social Dimensions of Entrepreneurship. The Encyclopaedia of Entrepreneurship. C. Kent, D. Sexton and K. Vesper. Eds. UK: Prentice-Hall, Englewood Cliffs.
- Shapero, A. and L. Sokol 1982. The social Dimension of Entrepreneurship. *The Encyclopedia of Entrepreneurship*, C.A. Kent, D.L. Sexton and K.H. Vesper Eds. Englewood Cliffs, NJ: Prentice-Hall.
- Shapero, A. 1975. The displaced uncomfortable entrepreneur, *Psychology Today*, 8: 83-88.
- Shaver K.G., Gartner, W.B., Crosby, E., Bakalarova, K., and Gatewood, E.J. 2001. Attributions about entrepreneurship: a framework and process for analyzing reasons for starting a business. *Entrepreneurship Theory and Practice*, 26.2.
- Shook, C.L. Priem, R. I. and McGee, J.E. 2003. Venture creation and the enterprising individuals: a review and synthesis. *Journal of Management*. 23.3:379-399.
- Sia, A. P., Hungerford, H. R., and Tomera, A. N. 1985. Selected predictors of responsible environmental behaviour: An analysis. *Journal of Environmental Education*, 17:31-40.
- Sipsma, L. 2000. Emotional intelligence and team effectiveness of postgraduate management students in self-managed work teams. Unpublished minidissertation, University of Rhodes, South Africa. Retrieved February 2, 2010, http://www.mhs.com/AboutUs.asp?id=IO
- Sitkin, B. and Weingart, L. 1995. Determinants of risky decision-making behaviour: A test of the mediating role of risk propensity and behaviour. *Academy of Management Journal*, 38.6.
- Sitkin, S.B and Pablo, A.L.1992. Reconceptualizing the determinants of risk behaviour. *Academic Management Review* 17:9–38.
- Sitarenios, G. 2001. Emotional Intelligence in the Prediction of Sales Success in the Finance Industry. Retrieved February 2, 2010, http://www.mhs.com/AboutUs.asp?id=IO
- Souitaris, V., Zerbinati, S and Al-Laham, A. 2007. Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, 22.4: 566-591.
- Sternberg, R. J. (Ed.). 1999. *Handbook of creativity*. New York: Cambridge University Press.
- Sternberg, R. J., and Lubart, T. I. 1999. The concept of creativity: Prospects and paradigms. *Handbook of creativity*. R. J. Sternberg Ed. New York: Cambridge University Press. 3–15.

- Sternberg, R. J. 1995. Seeking to understand intelligence in context. American Journal of Psychology, 108.2:297–299.
- Streeter, D., Jaquette, P. and Hovis, K. 2002. University-wide entrepreneurship education: Alternative models and current trends. WP 2002-02 March 2002 Working Paper. Department of Applied Economics and Management, Cornell University, Ithaca, New York.
- Stevenson, L. A. 1986. Against all odds: The entrepreneurship of women. *Journal of Small Business Management*, 24.4:30-36.
- Stoner, C. R., Hartman, R. I., and Arora, R. 1990. Work-home role conflict in female owners of small business: An exploratory study. *Journal of Small Business Management*, 28.1:30-38.
- Stewart, W.H. and Roth, P.L. 2001. Risk propensity differences between entrepreneurs and managers: a meta-analytic review, *Journal of Applied Psychology*, 86.1: 145–53.
- Storr, A. 1972. The Dynamics of Creation . Atheneum, New York.
- Still, L.V. and Timms, W. 2000. Women's Business: The Flexible Alternative Work Style for Women. *Women in Management Review*, 15.5-6:272-282.
- Stumpf, S. A., Brief, A. P. and Hartman, K. 1987. Self-efficacy expectations and coping with career-related events. *Journal of Vocational Behaviour*, 31:91–108.
- Svendsen, G.L.H. and Svendsen, G.T. 2004. The Creation and Destruction of Social Capital: Entrepreneurship, Co-operative Movements and Institutions. Edward Elgar, Cheltenham.
- Tans, L., 2003. The relationship between emotional intelligence and contextual performance as influenced by job satisfaction and locus of control orientation. An Unpublished D.M. Thesis, Alliant International University, San Diego.
- Timmons, J. A. and Spinelli, S. 2003. *New venture creation entrepreneurship* for the 21<sup>st</sup> century. New York, Mcgraw Hill
- Timmons, J. A., Muzyka, D. F., Stevenson, H. H., and Bygrave, W. D. 1987. Opportunity recognition: The core of entrepreneurship. *Frontiers of entrepreneurship research*. N. C. Churchill, et al. Eds. Wellesley, MA: Babson College.
- Torrance, E. P. 1995. Why Fly: A Philosophy of Creativity. Norwood, New Jersey, Ablex Publishing Corporation.
- Trevino, L.K. 1986. Ehthical decision making in organisations. A person- situation interactionist model. *Academy of management review*, 11: 601-617
- Uphoff, N. 2000. Understanding social capital: learning from the analysis and experience of participation, in Dasgupta, P and Serageldin, I (eds) Social capital, a multifaceted perspective, Washington; The World Bank, 215-249.

- Uphoff, N .1999, Understanding Social Capital: Learning from the Analysis and Experiences of Participation, in Dasgupta and Seregeldin, Social Capital: A Multifaceted Perspective, World Bank, Washington DC, USA
- Utsch, A. and Rauch, A. 2000. Innovativeness and initiative as mediators between achievement orientation and venture performance'. *European Journal of Work and Organizational Psychology* 9, 45–62.
- Van Kooten, G. C., Schoney, R. A., and Hayward, K. A. 1986. An alternative approach to the evaluation of goal hierarchies among farmers. *Western Journal of Agricultural Economics*, 11, 40-49.
- Varela R., and Jimenez J.E.2002. The effect of entrepreneurship education in the universities of California, Frontiers of Entrepreneurship Research, Babson Conference Proceedings, Retrieved 2nd of June 2010 www.babson.edu/entrep/fer.
- Venkataraman, S. 2003. A General Theory of Entrepreneurship. The Individual-Opportunity Nexus: xi-xii. Northampton, MA: Edward Elgar.
- Venkataraman, S. 1997. The Distinctive Domain of Entrepreneurship Research. London: Jai Press.
- Vesper, K. H. 1980. New venture strategies. Englewood Cliffs, NJ: Prentice Hall.
- Vroom, V. H. 1964. Work and motivation. New York: Wiley.
- Wood, R. E. and Bandura, A. 1989. Social cognitive theory of organizational
- Wallas, G. 1926 The Art of Thought. New York: Harcourt Brace.
- Ward, T.B. 2004. Cognition, creativity and entrepreneurship, *Journal of Business Venturing*, 19:173–188.
- Ward, T. B., Finke, R.A. and Smith, S.M. 1995 *Creativity and the Mind: Discovering the Genius within.* Plenum Press. New York.
- Wang, C., Wong, P. and Lu, Q. 2002. Tertiary Education and Entrepreneurial Intentions, (in P.Phan-(Ed.), *Technological Entrepreneurship*, CT: Information Age Publishing. 55-82 Greenwich
- Weber, E. U., Blais, A.R., and Betz, N. E. 2002. A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviours. *Journal of Behavioural Decision Making*, 15: 263-290.
- Wilson, F., Marlino, D. and Kickul, J. 2004. Our entrepreneurial future: Examining the diverse attitudes and motivations of teens across gender and ethnic identity. *Journal of Developmental Entrepreneurship*, 9.3: 177-197.
- Wilson, F., Kickul, J. and D. Marlino, 2007. Gender, entrepreneurial self efficacy and entrepreneurial career intentions: implications for entrepreneurship education, *Entrepreneurship Theory and Practice*, 387-406.

- WHO 1998 Health promotion glossary. Geneva: World Health Organization.
- Wolfle, L.M.2003. The introduction of path analysis to the social sciences and some emergent themes: An annotated bibliography. *Structural Equation Modelling*, 10, 1-34
- Wolfle, L.M. 1977. An introduction to path analysis. Multiple Linear Regression Viewpoints, 8, 36-61
- Wood, R. and Bandura, A. 1989. Social cognitive theory of organizational management, *Academy of Management Review*, 14:361–381.
- Woolcock, M. and Narayan, D.2000. Social Capital: Implications for Development Theory, Research and Policy. *World Bank Research Observer*, 15.2: 225-50.
- Wright, S. 1921. Correlation and causation. Journal of Agricultural Research, 20:557–585.
- Wright, S. 1934. The method of path coefficients, Annals of Mathematical Statistics, 5:161–215
- Zampetakis, L and Moustakis, V. 2006. Linking creativity with entrepreneurial intention: a structural approach. *International Entrepreneurship and Management Journal*. 2.3:413-428.
- Zimmerer, T. and N. Scarborough. 2002. *Essentials of entrepreneurship and small business management*. Upper Saddle River, NJ: Pearson Education, Inc.
- Zimmerer, T.W. and Scarborough, N.M. 1998. *Essentials of Entrepreneurship and Small Business Management*. 2nd ed., Prentice-Hall, Englewood Cliffs NJ.
- Zimet, G. D., Dahlem, N. W., Zimet, S. G. and Farley, G. K. 1988. The multidimensional scale

of perceived social support. Journal of Personality Assessment, 52:30-41.

Zhao, H., Seibert S. E. and Hills, G. E. 2005. The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology*, 90.6:1265 1272.

## **APPENDIX I**

Please read the following statements from Section A. In Section B and indicate the extent to which you agree each of the statement or item by ticking the one that agrees with your choice.

## **SECTION A**

Instruction Please re	ad carefully and p	provide the requi	red information. Ti	ck
() the appropriate box	where necessary	for all sections A	Λ − Ι	
Name of School				
Gender:	Male [ ]		Female [	]
Field of study / Discipl	ine		e.g. (Medicine)	
Level of Study				

## SECTION B

# ENTREPRENEURIAL SELF-EFFICACY SCALE

Please use the following scales to respond to the questions that follow and tick the one that corresponds to your response or feeling about each particular question. Strongly Disagree (SD) = 1; Disagree (D) = 2; Undecided (U) = 3; Agree (A) = 4;

Strongly Agree (SA) = 5

		SD	D	U	А	SA
1	I can identify potential capital sources for the venture.					
2	I can develop relationships with people who connect to sources of funds.					
3	I can find market information for the products of my venture					
4	I know how to legally protect a new venture					
5	I can create products that fulfill customer's unmet needs.					
6	I can react quickly to unexpected changes.					
7	I can identify new areas for potential growth in the future.					
8	I can work productively in stressful situations					
9	I can communicate effectively with others					
10	I can manage effectively cash.					
11	I can handle effectively personal selling.					

14       I can be persistent even when things go wrong.         15       I can plan for the future.	14       I can be persistent even when things go wrong.       I can be persistent even when things go wrong.       I can be persistent even when things go wrong.         15       I can plan for the future.       I can be persistent even when things go wrong.       I can be persistent even when things go wrong.         15       I can plan for the future.       I can be persistent even when things go wrong.       I can be persistent even when things go wrong.         15       I can plan for the future.       I can be persistent even when things go the cided       I can be persistent even when things go wrong.         15       I can plan for the future.       I can be persistent even when things go the cided       I can be persistent even when things go the cided	12I can manage my time effectively.13I can manage risk effectively.					
wrong.     wrong.       15     I can plan for the future.       LEVEL OF ABILITIES     None       Some     Unde       Cided	wrong.     wrong.       15     I can plan for the future.       LEVEL OF ABILITIES     None       Some     Unde       Cided	13 I can manage risk effectively.	10				
15   I can plan for the future.I can plan for the future.LEVEL OF ABILITIESNoneSomeUnde cided	15I can plan for the future.Image: Some systemLEVEL OF ABILITIESNoneSome some some some some some some some s	wrong	,0				
cided	cided	15 I can plan for the future.					
16       Do you have necessary abilities (knowledge, skill and experience) to start a new business?	16       Do you have necessary abilities (knowledge, skill and experience) to start a new business?         16       Do you have necessary abilities (knowledge, skill and experience) to start a new business?			Some	Unde cided	Most	A
		16 Do you have necessary abilitie (knowledge, skill and experience) t start a new business?	es co				
			5	8			
			5	8			
			5				

## **SECTION C**

## **RISK TAKING STYLE SCALE**

Please use the following scales to respond to select the answer that best reflects your opinion.

Strongly Disagree (SD) = 1; Disagree (D) = 2; Undecided (U) = 3; Agree (A) = 4; Strongly Agree (SA) = 5

		SD	D	U	А	SA
1	The overall risk of the business is high.					
2	The probability of failure is high					
3	The founder stands to loose a lot financially					
4	There is a lot of uncertainty when predicting how			X		
	well the business will do					
5	I will consider this business opportunity					
6	The business opportunity is worth considering					
7	This business is feasible given the situation					

### **SECTION D**

### MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT

Please use the following scales to respond to the questions that follow and circle the number that corresponds to your response or feeling about each particular question.

Strongly Disagree (SD) = 1; Disagree (D) = 2; Undecided (U) = 3; Agree (A) = 4; Strongly Agree (SA) = 5

		SD	D	U	А	SA
1	There is a special person who is around when I am					
	in need					
2	There is a special person with whom I can share my					
	joys and sorrows					
3	My family really tries to help me.					
4	I get the emotional help and support I need from my					
	family					
5	I have a special person who is a real source of					
	comfort to me.					
6	My friends really try to help me					
7	I can count on my friends when things go wrong.					
8	. I can talk about my problems with my family.					
9	I have friends with whom I can share my joys and					
	sorrows.					
10	There is a special person in my life who cares about					
	my feelings					
11	My family is willing to help me make decisions.					
12	. I can talk about my problems with my friends.					

#### SECTION E

#### **ROTTER'S INTERNAL - EXTERNAL LOCUS OF CONTROL SCALE**

Please read these instructions carefully before ticking the ones that apply to you. This questionnaire is designed to find out the ways in which certain important events in our society affect different people. Each item consist of a pair of alternatives lettered A or B. please select the one statement of each pair which you more strongly believe to the case as far as it relates to you. Please choose the one you actually believe to be more true rather than the one you think you should choose or the one you assume to be true.

- A. Many of the unhappy things in people's lives are partly due to bad luck E
   B. People's misfortunes result from the mistakes they make. I
- A. One of the major reasons why we have wars is because people don't take enough interest in politics I

B. There will always be wars, no matter how hard people try to prevent themE

- 3. A. In the long run people get the respect they deserve in this world I
  B. Unfortunately, an individual's worth often passes unrecognized no matter how hard they try E
- 4. A. The idea that teachers are unfair to students is nonsense IB. Most students don't realize the extent to which their grades are influenced by accidental happenings E
- 5. A. Without the right breaks, one cannot be an effective leader E
  B. Capable people who have not become leaders have not taken advantage of their Opportunities I
- 6. A. No matter how hard you try some people just don't like you EB. People who can't get others to like them don't understand how to get along with others I
- 7. A. I have often found that what is going to happen will happen E
  B. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action I
- A. In the case of a well prepared student there is rarely such a thing as an unfair test I

B. Many times exam questions tend to be so unrelated to course work that studying is really worthless **E** 

- A. Becoming a success is a matter of hard work; luck has little or nothing to do with it I
  - B. Getting a good job depends mainly on being in the right place at the right time E
- A. In the long run, the bad things that happen to us are balanced by the good news I

B. Most misfortunes are the result of lack of ability, ignorance, laziness or all Three E

- 11. A. When I make plans, I am almost certain that I can make them work IB. It is not always wise to plan too far ahead because many things turn out to be a matter of luck anyhow E
- 12. A. In my case getting what I want has little nothing to do with fate IB. Many times we might as well decide what to do by flipping a coin E
- 13. A. Who gets to be the boss often depends on who was lucky enough to be in the right place first E

B. Getting people to do the right thing depends upon ability I

14. A. As far as world affairs are concerned, most of us are the victims of forces we can't understand or control **E** 

B. By taking an active part in political and social affairs, people can control world events **I** 

15. A. It is hard to know whether or not a person really likes you I

B. How many friends you have depends on how nice a person really is E

16. A. The average citizen can have an influence in government decisions IB. This world is run by the people in power and there is not much one person can do about it E

### **SECTION F**

### **EMOTIONAL INTELLIGENCE SCALE**

Please use the following scales to respond to the questions that follow and circle the number that corresponds to your response or feeling about each particular question.

Strongly Disagree (SD)= 1; Disagree (D)= 2; Undecided (U)= 3; Agree(A)= 4; Strongly Agree (SA)= 5

		SD	D	U	А	SA
1	I know when to speak about my personal problems.					
2	When I am faced with obstacles, I remember times I faced					
	similar obstacles and overcome them					
3	I expect that I will do well on most things I try		V		•	
4	Other people find it easy o confide in me					
5	I find it hard to understand the nonverbal messages of					
	people					
6	Some of the major events n my life has set me to					
	reevaluate what is important and not important					
7	When my mood changes, I see new possibilities.					
8	Emotions are one of the things that make my life worth					
	living					
9	I am aware of my emotions as I experience them					
10	I expect good things to happen					
11	I like to share my emotions with others					
12	When I experience a positive emotion, I know how to					
	make it last					
13	. I arrange events others enjoy					
14	I seek out activities that make me happy					
15	I am aware of the nonverbal messages I send to others					
16	I present myself in a way that makes a good impression					
	on others					
17	When I am in a positive mood, solving problems is easy					
	for me					

18	By looking at their facial expression, I recognize the			
10				
10	emotions people are experiencing.			
19	I know why my emotions change			
20	I have control over my emotions			
21	When I am in a positive mood, I am able to come up with			
	new ideas			
22	I easily recognize my emotions as I experience them			
23	I motivate myself by imagining a good outcome to tasks I			
	take on			
24	I compliment others when they have done something well			
25	I am aware of the non-verbal messages other people send			
26	When another person tells me about an important event in			
	his or her life, I almost feel as though I have experienced			
	this event myself			
27	When I feel a change in emotions, I tend to come up with			
	new ideas			
28	When I am faced with a challenge, I give up because I			
	believe I will fail			
29	I know what other people are feeling just by looking at			
	them			
30	I help other people feel better when they are down			
31	I used good moods to help myself keep trying in the face			
	of obstacles			
32	I can tell how people are feeling by listening to the tone of			
	their voices			
33	It is difficult for me to understand why people feel the			
	way they do			

# **SECTION G**

# **CREATIVE PERSONALITY SCALE**

Please indicate which of the following adjectives rightly describe you as an individual Strongly Disagree (SD)= 1; Disagree (D)= 2; Neutral (N)= 3; Agree(A)= 4; Strongly Agree (SA)= 5

		SD	D	Ν	Α	SA
1	Capable					
2	Artificial					
3	Clever					
4	Cautious					
5	Confident					
6	Egotistical					
7	Commonplace					
8	Humorous					
9	Conservative					
10	Individualistic					
11	Conventional					
12	Informal					
13	Dissatisfied					
14	Insightful					
15	Suspicious					
16	Honest					
17	Intelligent					
18	Well-mannered					
19	Wide interest					
20	Inventive					
21	Original					
22	Narrow interest					
23	Reflective					
24	Sincere					
25	Resourceful					
26	Self-confident					
27	Sexy					
28	Submissive					
29	Snobbish					
30	Unconventional					

# **SECTION H**

# THE BEM SEX ROLE INVENTORY

Please use the following to rate by yourself by ticking the one that best describe you Never true of me (NT) = 1; Rarely true of me (RT) = 2; Sometimes true of me (ST) = 3; Often true of me (OT) = 4; Always true me (AT) = 5

		NT	RT	ST	OT	AT
1	Self-reliant					
2	Yielding					
3	Helpful					
4	Defends own belief					
5	Cheerful					
6	Moody					
7	Independent					
8	Shy					
9	Conscious					
10	Athlectic					
11	Affectionate					
12	Theatrical					
13	Assertive					
14	Flatterable					
15	Нарру					
16	Strong personality					
17	Loyal					
18	Unpredictable					
19	Forceful					
20	Feminine					
21	Reliable					
22	Analytical					
23	Sympathetic					
24	Jealous					
25	Has Leadership Abilities					
26	Sensitive To The Needs Of Others					
27	Truthful					
28	Willing To Take Risks					
29	Understanding					
30	Secretive					
31	Makes Decisions Easily					
32	Compassionate					
33	Sincere					
34	Self-Sufficient					
35	Eager to Soothe Hurt Feelings					
36	Conceited					
37	Dominant					
38	Soft-Spoken					
39	Likable					
40	Masculine					
41	Warm					

42	Solemn			
43	Willing To Take a Stand			
44	Tender			
45	Friendly			
46	Aggressive			
47	Gullible			
48	Inefficient			
49	Acts as a Leader			
50	Childlike			
51	Adaptable			
52	Individualistic			
53	Does Not Use Harsh Language			
54	Unsystematic			
55	Competitive			
56	Loves Children			
57	Tactful			
58	Ambitious			
59	Gentle			
60	Conventional			

### **SECTION I**

# ENTREPRENEURIAL INTENTION QUESTIONNAIRE

Please use the following scales to respond to the questions that follow and tick the number that corresponds to your response or feeling about each particular question.

Strongly Disagree (SD)= 1; Disagree (D)= 2; Undecided (U)= 3; Agree(A)= 4; Strongly Agree (SA)= 5

		SD	D	U	А	SA
1	I am ready to make anything to be an					
	entrepreneur					
2	My professional goal is becoming an					
	entrepreneur					
3	I will make every effort to start and run my					
	own firm					
4	I am determined to create a firm in the					
	future					
5	I have very seriously thought in starting a		2			
	firm					
6	I have got the firm intention to start a firm					
	some day					

7. Have you ever seriously considered becoming an entrepreneur? Yes [] No []