

UNIVERSITY OF KWAZULU-NATAL

**Evaluating the Effectiveness of Adult Entrepreneurial Education in
Building the South African Economy**

By

Quentin Naidoo

203518089

**A dissertation submitted in partial fulfillment of the requirements for the degree of
Master of Business Administration**

**Graduate School of Business and Leadership
College of Law and Management Studies**

Supervisor: Alec Bozas

2011

University of KwaZulu-Natal
Graduate School of Business and Leadership
College of Law and Management Studies

DECLARATION

Ideclare that

- (i) The research reported in this dissertation/thesis, except where otherwise indicated, is my original research.
- (ii) This dissertation/thesis has not been submitted for any degree or examination at any other university.
- (iii) This dissertation/thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- (iv) This dissertation/thesis does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - a) their words have been re-written but the general information attributed to them has been referenced:
 - b) where their exact words have been used, their writing has been placed inside quotation marks, and referenced.
- (v) This dissertation/thesis does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and the source being detailed in the dissertation/thesis and in the References sections.

Signature:

Acknowledgements

First of all I would like to thank my Lord and Saviour Jesus Christ for giving me the strength to complete this project.

I wish to express my sincere appreciation and gratitude to the following individuals, without whose assistance, this study would not have been possible:

- My parents Mr Munsamy Naidoo and Mrs Parvathy Naidoo for giving me the opportunities I sometimes did not deserve.
- Mr Alec Bozas for his time, guidance and patience and most of all for accepting me as a student.
- Finally for the entrepreneurs who so willingly responded.

Abstract

This study evaluates the effectiveness of adult entrepreneurial education in building the South African economy. A literature review was done to define small, medium and micro enterprises (SMME's) and their contribution to the Gross Domestic Product of South Africa. Factors hindering SMME's are also considered. The theory of entrepreneurship is then discussed in order to understand the general principles that govern entrepreneurship.

The aim of this study was to establish whether adequate entrepreneurial education takes place at schools and the extent that adult entrepreneurial plays a role in forming SMME's. The alignment of entrepreneurs with their primary business experience was investigated to establish the extent of training that took place. The average incubation period during the adult entrepreneurial training phase was investigated relative to the economy in terms of unemployment and the absorption rate of the economy. Perceptions of entrepreneurs were established with regards to their education and its perceived success.

A non-probability sampling technique was used with purposive sampling as the sub technique. A total of 75 entrepreneurs were successfully interviewed for this project. The study established that entrepreneurial education at schools is minimal. It was discovered that post school entrepreneurial education is an important factor in setting up SMME's and most entrepreneurs stayed in the same industries that they received their primary training from. Most entrepreneurs obtained some formal post school education and perceived this to be an important factor in their success.

It is recommended that entrepreneurship education be taught at all schools (both primary and secondary) to provide a better foundation for school leaving entrepreneurs. It is also recommended that a study be done to find ways to reduce the incubation period that is needed post school in order to gain the necessary confidence levels to start businesses. This study should include ways of identifying prospective entrepreneurs early in their careers and nurturing them.

Table of Contents

Description	Page
Title Page	i
Declaration	ii
Acknowledgements	iii
Abstract	iv
Table of Contents	v
List of Appendices	viii
List of Tables	ix

CHAPTER ONE

Introduction

1.1	Introduction	1
1.2	Overview of the Problem	1
1.3	Problem Statement	4
1.4	Objectives of the Study	4
1.5	Key Research Questions	5
1.6	Significance of the Study	5
1.7	Limitations of the Study	5
1.8	Chapter Outline	6
1.9	Conclusion	6

CHAPTER TWO

Literature Review

2.1	Introduction	7
2.2	Defining SMME's	8
2.3	The Unemployment Situation in South Africa	9
2.4	The Importance of the SMME Sector to South Africa	10
2.4.1	The Contribution of the SMME Sector to South Africa	11
2.4.2	The Contribution of the SMME's to the GDP of South Africa	12
2.5	Factors Hindering the Small Business Sector in South Africa	12
2.6	Government Intervention to Promote the Development of SMME's	13
2.7	South Africa's Entrepreneurship Environment	16

2.8	Theory on Entrepreneurship	20
2.8.1	The Existence of the Opportunity	21
2.8.2	The Discovery of the Opportunity	27
2.8.3	Decision to Exploit an Opportunity	31
2.8.3.1	Non-Psychological Factors	32
2.8.3.2	Psychological Factors	35
2.8.4	Resource Acquisition	39
2.9	Entrepreneurship Courses	40
2.10	Conclusion	42

CHAPTER THREE

Research Methodology

3.1	Introduction	45
3.2	Scaling of Questions	46
3.3	Pilot Study	46
3.4	The Research Process	47
3.5	Reliability and Validity	48
3.5.1	Reliability	48
3.5.2	Validity	48
3.6	Problems Encountered During the Research	49
3.7	Questionnaire Construction	49
3.8	General Theory on Sampling	50
3.8.1	Non-Probability Sampling	51
3.8.2	Selecting a Suitable Sample Size	52
3.8.3	Purposive sampling	52
3.9	Conclusion	55

CHAPTER FOUR

Presentation of Results

4.1	Introduction	56
4.2	Presentation of Findings	56
4.2.1	Age and Gender	56
4.2.2	Education Level	57
4.2.3	Industry Experience Prior to Starting SMME	57

4.2.4	Perception of Psychological Factors	58
4.2.5	Perception of Non-Psychological Factors	59
4.2.6	Influence of Family on Entrepreneurship	60
4.2.7	Motivation for Entrepreneurship	60
4.2.8	The Perception of the Current Education System in South Africa	61
4.2.9	The Influence of the Access to Finance	61
4.2.10	Perception of Government's Responsibility	62
4.2.11	Perception of Own Performance	62
4.2.12	Perception of the External Environment (Country)	63
4.3	Conclusion	63

CHAPTER FIVE

Discussion and Recommendations

5.1	Introduction	64
5.2	Discussion of the Findings	64
5.2.1	Age and Gender	64
5.2.2	Education Level	65
5.2.3	Industry Experience Prior to Starting SMME	65
5.2.4	Perception of Psychological Factors	65
5.2.5	Perception of Non-Psychological Factors	66
5.2.6	Influence of Family on Entrepreneurship	68
5.2.7	Motivation for Entrepreneurship	68
5.2.8	The Perception of the Current Education System in South Africa	68
5.2.9	The Influence of the Access to Finance	68
5.2.10	Perception of Government's Responsibility	69
5.2.11	Perception of Own Performance	69
5.2.12	Perception of the External Environment (Country)	71
5.3	Conclusion	72
5.4	Recommendations	76

BIBLIOGRAPHY	77
---------------------	-----------

List of Appendices

Appendix 1	Introductory Letter and Informed Consent	82
Appendix 2	Questionnaire	84
Appendix 3	Raw Data	91

List of Tables

No.	Description	Page
2.3	Labour Market Variables Period March 2001- December 2010	9
2.4.1	Employment and the SMME Sector	11
2.4.2	SMME's Contribution to the GDP of South Africa	12
2.6	Instruments Being Used to Support SMME's	14
2.7.1	Education Level vs. Motivation to Start SMME's	16
2.7.2	Reason to Start SMME's	17
2.7.3	Business Sophistication Measure- Profiles	18
2.7.4	Entrepreneurship Rating by Experts	19
2.8.1	Avenues of Finance for SMME's	23

Chapter 1

Introduction and Background to the Problem

1.1 Introduction

This research assesses the effectiveness of adult entrepreneurship education in building the South African economy. This study is not a national study and samples a small population in the Edenvale and Midrand areas of Gauteng.

According to van der Berg (2007) in his thesis on the entrepreneurial potential amongst scholars in selected Afrikaans schools, entrepreneurship enjoys little or no attention at secondary schools. It is not offered as a learning subject. For this research adult entrepreneurship education is defined as any training completed after finishing secondary school. This could be either formal training that takes place in a tertiary institution such as a University or Technikon (now called University of Technology) or on the job training at a company. On the job training leads to company and industry specific experience, (Kor, Mahoney and Michael, 2007).

1.2 Overview of the Problem

According to the Global Entrepreneurship Monitor study (GEM, 2008), the South African entrepreneur operates in a very unique environment in that there are more factors that are negative for entrepreneurship than there are factors that are positive. In the same GEM study (2008), the entrepreneurship environment was discussed and rated by 37 experts. On a scale from 1 to 5, where 1 indicates an environment that was negative for entrepreneurship and 5 positive with 3 being average, the following scores were achieved in 3 related categories namely:

Factors Rated	Rating
Vocational, professional and tertiary level entrepreneurship education	2.4
Level of start-up skills and abilities	1.9
Primary and secondary level entrepreneurial education	1.9

Adapted from GEM 2008

From the above, South Africa is rated below average in education and skills that are deemed important or necessary for entrepreneurship. Of a total of 19 topics that were rated, South Africa only scored a rating of 3 and higher in five of them indicating that South Africa has a very “mediocre” environment for entrepreneurship.

In another survey (GEM, 2008) education and training was cited as the second most important factor constraining entrepreneurship. In that report education and training together with government policies was cited in their recommendations as the two most important factors necessary to stimulate entrepreneurship. This tells us that the education system in its current form does little to stimulate and it may even be a hindrance to entrepreneurship.

When compared to 30 countries that took part in the study, South Africa had the highest percentage of experts identifying education and training as a major limiting factor. This finding was made in 2001 the first year of participation and since then there has been no improvement (GEM 2009).

The Global Competitiveness Report (GCR) - (2009) rates South Africa’s ‘inadequately educated workforce’ as the most problematic factor for doing business in this country. In terms of the overall rating by the GCR South Africa is ranked 45 out of 134 countries. But the segmental ratings paint a very bleak picture, where the quality of primary school education

ranks 104 out of 134, the quality of higher education (secondary and tertiary education) rates worse at 110 out of 134 and much worse when it comes to the quality of mathematics and science education at 132 out of 134.

In terms of its rating against its peers (efficiency driven economies) South Africa scores below average in all categories, namely:

- a) Entrepreneurs in general need help with their plans before start up
- b) Enough help is available outside the education system
- c) Quality of entrepreneurship education and training at school
- d) Quality of entrepreneurship education and training post school

South Africa is ranked 12th out of the 14 efficiency driven economies. Overall South Africa was rated above countries such as Turkey and Uruguay, but below countries like Jamaica, Chile, Peru, Croatia and Macedonia to name a few.

Annual studies by GEM since its inception in 2001, concur that South Africa has a serious problem with the quality of its education system. In other words the school leaver is not equipped to go straight into entrepreneurship. GEM (2005) studied the relationship in developing countries between educational attainment and the propensity to engage in entrepreneurship. The results showed a significant difference between other developing countries and South Africa in terms of the probability of secondary school leavers owning and managing their own businesses was almost as high as that for people with post school education. In South Africa, however, the ratio was 77% lower for school leavers than it was for those with tertiary education.

This can have the effect of slowing the rate of entrepreneurship, something that is detrimental to an economy with a high unemployment rate of 24.0% as per the October to December figures of Statistics South Africa (Stats SA:2010).

Looking at the profile of entrepreneurs and taking the following factors into account namely, age, education, business experience and the number of years of business experience or knowledge transfer required to achieve the necessary confidence levels to open and manage their own businesses. This 'incubation' period is of particular importance because reducing it can decrease the current absorption rate of the economy 40.8% (Oct to Dec 2010; STATS SA., 2010). The absorption rate of 40.8% tells us that in the year 2010; only 40.8% of school leavers were absorbed into the economy.

1.3 Problem Statement

It is perceived that adult post school education and training does not foster entrepreneurial flair which is necessary to contribute noticeably to the economy.

1.4 Objectives of this Study

- To examine whether adequate entrepreneurial education takes place at schools.
- To determine whether adult / post school education plays a role in entrepreneurship.
- To determine whether an entrepreneur's entrepreneurship is aligned with his/her primary business experience.
- To establish the importance of adult education in setting up and managing a business as perceived by the entrepreneurs themselves.
- To determine the amount of adult education and training needed (formal and industrial experience) prior to setting up and managing a business.
- To establish whether the entrepreneurs are aligned with literature in terms of factors pertinent to running a business well.
- To determine whether the current profile of entrepreneurs interviewed perceive their education and training a success.

1.5 Key Research Questions

The key research questions are therefore

- a) Does adult / post school education plays a role in entrepreneurship?
- b) Is South Africa's entrepreneurs' current entrepreneurship aligned with their primary business experience?
- c) What is the average amount of adult education and training needed (formal and industrial experience) prior to setting up and managing a business?
- d) Does the current profile of entrepreneurs interviewed perceive their education and training a success?

1.6 Significance of the Study

This study is of significance because it determines whether adult post school education and training fosters entrepreneurial flair which is necessary to contribute noticeably to the economy.

Another area of significant importance to the government is that of the incubation period that entrepreneurs go through and its comparison to the current absorption rate of the economy.

1.7 Limitations of the Study

The main limitation of this study is the geographical location that it was conducted in. This study focussed on the Edenvale and Midrand area as a geographical area and as such does not include the smaller metropolitan areas. South Africa does have a dual economy and the informal economy is not considered here as the study of the informal economy is a separate study with its own dynamics. The informal economy, however, constitutes approximately 82% of the businesses, with 78% living below the poverty line (Finscope 2006, pg20). The literature survey excludes entrepreneurial strategy, organising processes and performance will

not be discussed in this study.

1.8 Chapter Outline

Chapter 2, is the literature survey

Chapter 3, contains the research methodology

Chapter 4, presents the findings of this research

Chapter 5, is the discussion of the findings

Chapter 6, consists of the conclusions and recommendations

1.9 Conclusion

This chapter has stated the perceived problem and the objectives. This research considers the perceived problem of adult post school education and training, failing to foster entrepreneurial flair, which is necessary to contribute noticeably to the economy. The literature survey follows in chapter two.

Chapter 2

Literature Review

2.1 Introduction

The purpose of this chapter is to initially define a small, medium and micro enterprise (SMME). This is followed by a description of the economic climate in the country in terms of the unemployment situation. Here data from 2001 to 2010 is used. The importance of the SMME sector to the South African economy is also highlighted. Three sources of data were used in this research.

The contribution of the SMME sector is then examined in terms of its contribution to the employment numbers in South Africa. Thereafter figures are presented that show the importance of SMME's to the GDP of South Africa.

Factors hindering the small business sector are then discussed. This is then followed by the intervention by government to promote the development of small business in South Africa.

The theory of entrepreneurship follows next and is based on the integrated model as proposed by Shane (2004) that provides a general framework for entrepreneurship. This model looks at entrepreneurship as a process with the following constructs:

- a) The existence of the entrepreneurial opportunity
- b) The discovery of the opportunity
- c) The decision to exploit an opportunity
- d) The resource acquisition process

2.2 Defining SMME's

There is no universal definition for what constitutes an SME (World Bank, January 2011). The OECD has identified that there has been a number of efforts to provide a streamlined definition for SMME's but concedes that due to the "heterogeneity and nature of the economies that they operate in, establishing a global definition is not feasible" (World Bank, Policy Research Working Paper, No. 5538, pg7, January 2011).

The most common definitions, however, are based on the number of employees, sales volumes as well as the amount of financing required by that business. According to the World Bank , "the number of employees and the sales volumes are probably the most accurate way to define an SME but this data is not always available from lenders" (World Bank, Policy Research Working Paper, No. 5538, pg7, January 2011).

The Small Business Act (No: 1901 National Small Business Act 102 of 1996) defines a small business as a separate and distinct entity. It is usually managed by one owner, who carries out business in any sector or sub sector and it can be classified as a micro, a very small, a small or a medium enterprise according to three categories, namely the number of employees, the turnover per annum and the total assets excluding fixed property. It must be noted that this definition is legislation and there is no newer/ updated source. The values for turnover are still based on 1996 and appear outdated.

2.3 The Unemployment Situation in South Africa

Table 1: Labour Market Variables Period March 2001 to December 2010

Thousand	Mar'01	Mar'02	Mar'03	Mar'04	Mar'05	Mar'06	Mar'07	Dec'08	Dec'09	Dec'10
Employed (a)	12275	11617	11304	11392	11907	12451	12648	13884	12974	13132
Unemployed (b)	4413	4897	5116	4415	4283	4275	4336	3873	4165	4137
Not economically active (c)	11408	11819	12337	13324	13334	13126	13211	13176	14123	14924
Labour force (a+b)	16688	16514	16420	15807	16190	16726	16984	17757	17139	17269
Working age (a+b+c)	28096	28333	28756	29131	29524	29852	30195	30933	31262	32193
Discouraged Work Seekers	2696	3045	3241	3764	3824	3683	3503	1168	1686	2150
Unemployment rate	26.4	29.7	31.2	27.9	26.5	25.6	25.5	21.9	24.3	24.0
Absorption rate	43.7	41.0	39.3	39.1	40.3	41.7	41.9	44.8	41.5	40.8
Labour force participation rate	59.4	58.3	57.1	54.3	54.8	56.0	56.3	57.3	54.8	54.1

Adapted: Stats SA, Quarterly Labour Force Surveys 2008-2010

Table 2 above shows that the unemployment rate in South Africa reached a peak in 2003 when 31.2% of the labour force was unemployed. This rate then reached its lowest level in December 2008 when 21.9% of the labour force was unemployed. Since the world market crash of 2008 this rate has jumped to 24.3% in 2009 and 24.0% in 2010 respectively.

Due to the nature of the definition of 'being unemployed' the statistics does not take into account the amount of people that are of working age that are not economically active. Although there are various reasons that this sector of the population is unemployed, if one looks at the figures as a whole then unemployed persons actually make up greater than 60% of

the population (not economically active, discouraged work seekers and unemployed) who are of working age. To put these figures into perspective 6 out of every 10 people of working age are not employed. These figures reflect the importance of employment creation in South Africa.

In terms of creating employment one has to take into consideration the labour absorption rate. This rate is for the period above averages 41.4%. This means that every year only 41.4% of new entrants into the market namely school leavers are absorbed into the market. This brings us to an important point in this study – School leavers do not have the necessary skills in order to become self-employed due to the absorption rate being so low.

2.4 The Importance of the SMME Sector to the Economy of South Africa

In order to determine the size of the SMME sector in South Africa, various sources of data will have to be examined namely:

- a) The Quarterly Employment Survey (QES) (Stats SA)
- b) The Labour Force Survey (LFS) (Stats SA), and
- c) Survey of Employers and the Self-employed (SESE) (Stats SA)

The QES provides data on registered businesses in the formal sector only. In order to obtain data from the other sectors data from the LFS has to be examined. This survey is designed to obtain data from the households that are excluded from the QES (SESE, 2005).

2.4.1 The Contribution of the SMME Sector in Terms of Employment in South Africa

Table 2: Employment and the SMME Sector

Average 2001-2004	Micro (%)	Very Small (%)	Small (%)	Medium and Large (%)	Unspecified / don't know (%)	Total (%)
Overall	30	24	16	27	2	100
Agriculture	37	12	32	18	1	100
Mining and Quarrying	2	7	4	85	2	100
Manufacturing	14	17	19	46	3	100
Electricity, gas and water	2	16	17	55	10	100
Construction	36	31	16	14	3	100
Trade, hotels and restaurants	46	27	12	12	2	100
Transport, storage and communication	30	17	13	36	3	100
Financial and business services	17	27	19	33	3	100
Community social and personal services: enterprises (assumed)	30	40	11	17	3	100

Adapted: Seda Review of trends in entrepreneurship and the contribution of small enterprises to the economy, 2000-2006

Table 3 above shows that the micro, very small and small enterprises account for 70% of the employment in South Africa. SMME's therefore account for over 70% of the employment in South Africa. This makes the SMME sector an important component in the South African economy.

2.4.2 The Contribution of SMME's to the GDP of South Africa

Table 3: SMME's Contribution to GDP of South Africa

Sector	Approx Share of GDP (%)
Agriculture	40
Manufacturing	40
Trade	50
Construction	55
Transport	43
Community and Personal Services	62

Adapted: Seda Review of trends on entrepreneurship and the contribution of small enterprises to the economy, 2000-2006

Table 4 above shows the important contribution of the SMME sector in terms of Gross domestic product.

From the data contained in this section one can conclude that the SMME sector in South Africa is a very important component in the economy. The unweighted average put the contribution to GDP at 48.3%. This makes it a very significant number.

2.5 Factors hindering the Small Business Sector in South Africa

The GEM (2006, pg12) report identified the following factors limiting entrepreneurial activity, namely:

- a) "The South Africa's education system does not foster entrepreneurship as a career. It is only seen as a career in times of necessity."
- b) "The commercial banks need too much of security before committing funds to a project."
- c) "There are limited resources available to start a business."
- d) "The business start up process is hindered due to the prohibitive legislative requirements."
- e) The culture in South Africa is one directed towards education and then search for a job.

This is the “safe” route.

- f) “The South African society has a very critical attitude towards business failure and this inhibits many potential entrepreneurs.”
- g) “The general skills and infrastructure necessary required for the development of entrepreneurship are lacking.”
- h) “The population believe that it is the job of government and established businesses to create employment, instead of making job creation their own responsibility.”
- i) “Existing entrepreneurs lack the key competencies of entrepreneurs namely, management and entrepreneurial skills.”

In light of these and other findings GEM (2006) recommends that government promote the creation and development of SMME’s with more co-ordination and integration.

2.6 Government Intervention to Promote the Development of SMME’s

The government of South Africa adopted the White Paper on the National Strategy for the Development of Small Businesses in South Africa (1995). This paper represents the view of the South African government of its role and responsibilities to promote small businesses after the country was politically transformed in April 1994 (White Paper, Notice 213 of 1995).

In 2005 the Department of Trade and Industry (DTI) developed The Integrated Small Enterprise Development Strategy (pg1,4) to “unlock the potential of South African entrepreneurs.” The purpose of this strategy was to, “present a way forward for small enterprise development in South Africa over the next 10 years (i.e. 2005 to 2014).”

The strategy was based on three main initiatives, namely:

- a) To facilitate the promotion of entrepreneurship by the use of a series of co-ordinated activities together with training on leadership followed by the awarding of certificates.
- b) To enhance the environment through the relaxation of tight or onerous regulations, easier access to capital as well as the markets, the creation of better infrastructure as

well as advice in terms of managing a business.

- c) To increase competitiveness by expanding its efforts in terms of skills enhancement. Support for quality and productivity problems to be addressed as well as to ensure that there is a proper transfer of technology. Finally the transfer of entrepreneurs from “incubation” to a fully-fledged independent business.

Within the three main initiatives identified above the document highlights six areas of focus which needs proper attention in terms of resources and funds. This must be fully supported by government and the Department of Trade and Industry (DTI). The six areas are namely:

- a) The access to finance to be properly addressed. SMME’s must have better access to finance.
- b) Addressing the onerous regulatory hurdles that SMME’s face.
- c) Helping certain SMME’s to have better market access and competitiveness.
- d) SMME’s to have access to business support that is located nearby with easy access to information that is approved by Seda.
- e) SMME’s to receive training in entrepreneurship
- f) Provide basic business funding with partners throughout South Africa.

Table 4: Instruments that are being used to support SMME’s

	Type of Instrument	Example
1	Policies pertaining to SMMEs	<ul style="list-style-type: none"> • Integrated Small Enterprise Development Strategy • Economic policy change, addressing poverty, growth and development strategies
2	Legislation	<ul style="list-style-type: none"> • National small business act as well as Companies act
3	Regulations and administrative procedures	<ul style="list-style-type: none"> • Company regulations, Tax regulations • Intellectual property regulations • Procurement regulations • Trade administration
4	Advisory structures	<ul style="list-style-type: none"> • National small enterprise advisory council
5	Co-ordination mechanisms	<ul style="list-style-type: none"> • National government co-ordination structures • Provincial and local government co-ordination structures • Structures that co-ordinate between partners for eg. NGOs and private sector

6	Research	<ul style="list-style-type: none"> • Research to obtain baselines
7	Providing advice and information	<ul style="list-style-type: none"> • Industry and market information • Information about support services • Information channelled via institutions and media
8	Monitoring and evaluation	<ul style="list-style-type: none"> • Creation of indicators for the monitoring evaluation as well as feedback systems
9	Building capacity	<ul style="list-style-type: none"> • Increase the effect of institutions that support SMME's • Institutions that support SMME's must be aligned
10	Addressing problems with SMME's as well as building leadership	<ul style="list-style-type: none"> • Promoting good leadership, directing SMME's • Catalytic projects, starting SMME initiatives,
11	To provide training and enhancing of SMME's capabilities	<ul style="list-style-type: none"> • Providing SMME training, Industry type based training • Training in Entrepreneurship
12	Facilitation of knowledge between organisations	<ul style="list-style-type: none"> • Business Chamber structures, BEE structures • Industry type associations, supply chain networks
13	Access to Finance	<ul style="list-style-type: none"> • Grants • Loans • Venture capital • Sureties and guaranties
14	SMME's to have access to	<ul style="list-style-type: none"> • Transport, utilities, water, electricity, waste, IT, property
15	Projects	<ul style="list-style-type: none"> • Industry specific, competitiveness and technology enhancement projects • Small business incubators

Source: DTI (2005) Integrated Small-Enterprise Development Strategy

The interventions outlined above confirm that the government of South Africa views the creation of small business as vital to meet its micro and macro-economic objectives.

While there are interventions by the government the unemployment rate seems to have stabilised around the 24.2 % level (2009 and 2010). The labour absorption rate has also stabilised around the 41.2 % level for the same period. The author can conclude from these figures that government interventions are not having the desired success.

2.7 South Africa's Entrepreneurship Environment

From the Finscope Study (2006) (n=2001 respondents) into SMME's in Gauteng, a Business Sophistication Measure Index (BSM) was developed with a scale ranging from informal street vendors to the more sophisticated and sustainable businesses. Only BSM 5 to 7 are considered for this research because BSM 1 and 2 are below the poverty line while the annual turnover of BSM 5 starts at R27 841 pa. This was considered a reasonable starting area given the geographical area of the survey.

2.7.1 The following table compares the education level to the motivation to start one's own business

Table 5: Education Level vs Motivation to start SMME

Education Level	Could not find another job (%)	Wanted to have own business (%)
Some high school education	41	44
Matric	27	58
Post matric qualification	20	74
Bachelors degree	6	62
Any post graduate degree	9	91

Adapted: Finscope Small Business Study (2006)

2.7.2 The motivation to start their own business, were the following reasons:

Table 6: Reason to start SMME

Reason	BSM 5 (%)	BSM 6 (%)	BSM 7 (%)
Wanted to have own business	48	62	85
I couldn't find another job	32	16	6
I was retrenched	14	15	7
Previous work experience	7	7.7	10.7

Adapted: Finscope Small Business Study (2006)

2.7.3 Below is a profile of the 3 BSM levels that was considered:

Table 7: Business Sophistication Measure - Profiles

		BSM 5	BSM 6	BSM 7
Owner age profile	35-49yrs	34%	39%	4%
	≥50 yrs	20 %	24%	29%
Education	Matric	33%	38%	29%
	Post Matric Qualification	-	21%	48%
	Bachelors	-	-	8%
	Post Graduate Degree	-	4%	5%
Annual Turnover		R27 841	R66 597	R463 747
Skills	Self Taught	61%	46%	26%
	Family	8%	13%	16%
	Previous Job	19%	18%	39%
	Training Programme	-	17%	29%
	At School	6%	3%	16%
Previous Experience	None	33	29	14
	+/- 1 year	9	9	0
	2 years	0	4	0
	5 years	0	10	0
	10 years	0	8	0
	> 10 years	62	63	77

Adapted: Finscope Small Business Study (2006)

According to the Global Entrepreneurship Monitor study of 2008 (GEM), the South African entrepreneur operates in a very unique environment in that there are more factors that are negative for entrepreneurship than there are factors that are positive. In the same study of 2008, the entrepreneurship environment was discussed and rated by 37 experts. On a scale of 1 to 5, where 1 indicates an environment that was negative for entrepreneurship and 5 positive with 3 being average, the following scores were achieved in 3 related categories namely:

2.7.4 Entrepreneurship Rating by GEM (2008) Experts

Table 8: Entrepreneurship Rating by Experts

Factors Rated	Rating
Vocational, professional and tertiary level entrepreneurship education	2.4
Level of start-up skills and abilities	1.9
Primary and secondary level entrepreneurial education	1.9

Adapted from GEM 2008 – Summary of experts' response to entrepreneurship

From the other 16 categories that were rated, only 5 categories scored a mean of 3 and above, but none scored a value of 4 (good) and higher. According to GEM (2008), the most negative assessments centre on government programs and policies, education and entrepreneurial capacity and technology transfer. Government policies/programmes and education and entrepreneurial capacity have been the most frequently cited limiting factors since 2001.

The Global competitiveness report (GCR) - (2009) rates South Africa's poorly educated workforce as the most problematic factor for doing business in this country. In terms of the overall rating by the GCR South Africa is rated 45 from a total of 134 countries. But the segmental ratings paint a very bleak picture, where the quality of primary school education ranks 104, the quality of higher education (secondary and tertiary education) rates worse at 110 and much worse when it comes to the quality of mathematics and science education at 132.

In terms of its rating against its peers (efficiency driven economies) South Africa scores below average in all categories, namely:

- a) Entrepreneurs in general need help with their plans before start up
- b) Enough help is available outside the education system

- c) Quality of entrepreneurship education and training at school
- d) Quality of entrepreneurship education and training post school

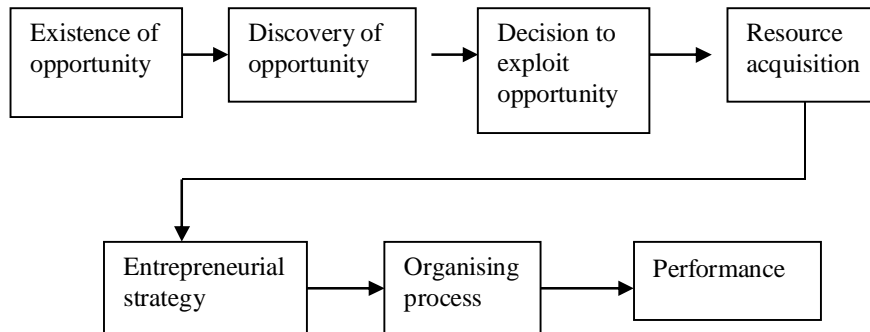
South Africa is ranked 12th out of the 14 efficiency driven economies. South Africa was rated above countries like Turkey and Uruguay, but below countries like Jamaica, Chile, Peru, Croatia and Macedonia to name a few (GCR 2009).

Annual studies by GEM since its inception in 2001, concur that South Africa has a serious problem with the quality of its education system. In other words the school leaver is not equipped to go straight into entrepreneurship. GEM (2005) studied the relationship, in developing countries, between educational attainment and the propensity to engage in entrepreneurship. The results showed a significant difference between other developing countries and South Africa in that the probability of secondary school leavers owning and managing their own businesses was almost as high as that for people with post school education. In South Africa, however, the ratio was 77% lower for school leavers than it was for those with tertiary education.

2.8 Theory on Entrepreneurship

The literature survey will use the model proposed by Shane (2004) which is essentially an integrated model for entrepreneurship. It is based on the links between the prospective entrepreneur and the opportunity that presents itself. It also provides a framework that outlines the entrepreneurial process that takes place. The figure below outlines the framework.

The Individual-Opportunity Model



Adapted from Shane (2004)

2.8.1 The Existence of the Opportunity

The existence of an opportunity has been linked to two schools of differing and somewhat opposing thoughts. The first school of thought developed by Schumpeter (1934), argued that in order to explain or understand entrepreneurial opportunities new information was important. He stated that change produces new opportunities and information where entrepreneurs can then figure out how to best combine resources in the new environment to produce more valuable and economic forms. These changes are mainly found in technology, political forces, government regulation, macro-economic factors and social trends. This theory is very innovative and involves the creation of some product or skill (Schumpeter 1934).

Kirzner (1973) on the other hand argued that the existence of opportunities requires only a partial amount of existing information. “The entrepreneurs thereby use this information to form beliefs about how to make efficient use of the resources. This theory is less innovative and tends to replicate established ways of doing things and limited to discovery and not involved with creation.” The risk in this is lower than the Schumpeter theory.

The Environmental Context of Entrepreneurship

The environment is made up of the Economic, Political and the Socio-cultural elements.

The Economic Environment

According to Shane (2004) there are four areas in the economic realm that influences the entrepreneur namely; societal wealth, economic stability, capital availability and taxation.

- a) **Societal Wealth:** research conducted by Campbell (1992) showed that entrepreneurial opportunity is enhanced when the economy is booming due to strong demand for goods and services. Also greater wealth allowed entrepreneurs to finance their ventures by themselves. Another study (Jackson and Rodney, 1994) showed that wealth encouraged positive attitudes towards entrepreneurship leading more people to consider going into business for themselves.
- b) **Economic Stability:** Harper (1997) found that stable monetary policies encourage people to become entrepreneurs because they are more confident in their entrepreneurial decisions as the perceived risk is lower. It was also found that during periods of hyperinflation in South America entrepreneurial activity dropped sharply when compared to periods where the economies were stable (Shane, 2004). South Africa has managed its macroeconomic environment very well since the 1990's. The introduction of inflation targeting in 2000 has ensured that South Africa has a monetary policy that's more 'transparent and predictable' (OECD, 2011). According to a report commissioned by the South African Government on SMEs access to finance it has been noted that 'during times of interest rate volatility and foreign exchange uncertainty the number of businesses going bankrupt increases.' The report goes further to say that when an economy is well managed it tends to have predictability in inflation rates, the availability of credit and interest rates this leads to higher risk taking by SMME's (SME's access to finance - a supply side regulatory review, unpublished)

- c) Capital Availability: Amit, Brander and Zott (1998) found that the more the capital available the greater the competition among investors to finance entrepreneurs. This implies that more entrepreneurs are able to obtain financing for their ideas leading to the formation of more businesses. The terms of these loans are also more relaxed. South Africa has many avenues from which entrepreneurs may obtain finance, some are listed below (GEM 2008):

Table 9: Avenues of Finance for SMME's

Business Size	Size of Loan	Whom to approach for Funding
Micro Loan	R800 – R10 000	Small Enterprise Foundation (SEF)
	R350 – R 3 500	Khula Micro-credit Outlets (MCOs)
	R300 – R10 000	Women's Development Businesses (WBD)
	R300 – R10 000	SA Microfinance Apex Fund (SAMAF)
	R500 – R10 000	Marang Financial Services
	R1 000 – R100 000	Red Door, Western Cape
Small/Medium	R15 000 – R3 million	Blue Financial Services
		Business Partners Khula start-up
		Anglo-Khula Mining Fund
	R100 000 – R2,5 million	Enablis-Khula Loan Fund
		Khula-Enablis SME Acceleration Fund
	R1 000 – R5 million	National Youth Development Agency
	up to R5 million	Gauteng Enterprise Propeller (GEP)
	R250 000 – R20 million	Business Partners
	Variable	ABSA, FNB, Standard, Nedcor, Capitec
	minimum R5 million	Venture capitalists
Medium/Large	max R20 million	NEF Imbewu Fund

	R5 million – R200 million	NEF Corporate Fund
	from R1 million	IDC

Source: GEM 2009

With the amount of capital available by government for the creation of SMME's it begs the question, what percentage of the annual amounts allocated have been loaned to prospective entrepreneurs? Another question that may be asked is whether entrepreneurs are aware of the information contained in the table above.

- a) Taxes: According to Harper (1997) high marginal tax rates reduces entrepreneurial activity because people's perceptions are negatively influenced. This happens as a result of people perceiving their profit being somewhat diminished as a result of a higher tax rate. A similar trend was shown by Gentry and Hubbard (2000) where there was an inverse relationship between the marginal income tax rate in the United States and self employment.

The Political Environment

The political environment and its influence on entrepreneurial activity is affected by three main issues namely; freedom, property rights and centralization of power.

- a) Freedom: Hayek (1945) found that a society enjoying political freedom also has a relatively unhindered exchange / transmission of information. This bodes well for entrepreneurship since entrepreneurship begins with the acquisition of information about an opportunity. South Africa achieved political freedom in April 1994. The unemployment figures from 2001 to present, paints an alternate picture.
- b) Property Rights: Harper (1997) found inter alia that strong property rights meant that an entrepreneur's profits will be protected. In other words entrepreneurs will not fear going into entrepreneurship because there is no threat of the state taking over

someones business. Also the rule of law made it safe for them to pursue opportunities without fear that the law may change. In terms of innovation, Casson (1995) found that investment in innovation was made without fear if property rights were protected. Greater division of labour could be obtained because contract labour and the enforcement of contracts could be used to achieve the desired results (Libecap, 1993).

- c) Centralisation of Power: Shane (2004) found that opportunity exploitation was favoured by nations that had a decentralized power base (Democracy) as opposed to a central power system (Communism and Socialism). South Africa has a decentralised power base.

The Socio-Cultural Environment

According to Shane (2004) the socio-cultural environment is made up of the “beliefs and attitudes” of society as to what constitutes acceptable behaviour. The entrepreneurial opportunity is thus influenced by its appeal and the risks associated with it. Aldrich & Fiol (1994) found that an entrepreneurial opportunity is influenced by the attitudes and perceptions of members in a society. In other words if a society has a positive attitude towards entrepreneurship then there is a greater probability of such people engaging in entrepreneurial behaviour.

According to Shane (2004) positive socio-cultural norms influences the knowledge capital base of the society in that there are experienced role models on which to encourage future generations. He also goes on to describe how societies that encourage making ones own decisions facilitate entrepreneurship because entrepreneurship is about exercising ones own judgement.

Butler and Herring (1991) studied 7542 respondents to a general society survey to find out which ethnic groups were employed and which had a high percentage of entrepreneurs. They found that there were differences in self employment between cultural groupings. They also

found that Irish, African, Hispanic and Polish people have a smaller likelihood of engaging in self employment while the Jewish community had the greatest propensity to engage in entrepreneurial activities.

In another study by Begley and Boyd (1987) cited by Shane (2004), 861 MBA programmes from seven countries were analysed. It was found that where countries held a high social status for entrepreneurs, the likelihood of MBA graduates engaging in self employment was also higher.

The Source of the Opportunities

There are three main sources of opportunities namely:

a) Technological Changes

Blau (1987) showed that as the rate of self-employment increases so does the rate of technological change. For example before the invention of the cellular telephone, people relied on land lines. But this technology has created businesses in banking, music downloads and internet use.

b) Political and Regulatory Changes

According to Shane (2004) there are many examples where political change spurred the creation of new businesses. For example, Carroll and Hannan (2000) found that more new commercial banks were created in Singapore after the Monetary Authority of Singapore was established. McMillan and Woodruff (2002) found that when governments change from communism to capitalism, there is a surge of opportunities for entrepreneurs and this took about six years to abate.

Regulatory changes for example like those in the airline industry show that when deregulation occurred there was a sudden increase in new airline companies being formed (Kelly, 1988). According to Shane (2004), increased regulation reduces the rate

of new companies being formed. South Africa became a democratic country in April 1994.

c) Social and Demographic Changes

The increased rate of urbanisation was found to have direct correlation to the creation of opportunities. According to Storey and Tether (1998) densely populated areas allowed the opportunity for better communication and this resulted in better communication about entrepreneurial opportunities. Schiller and Crewson (1997) found that urbanisation is a source of entrepreneurial opportunity after their study of 12000 people between the ages of 14 and 23.

Population dynamics (size, growth and mobility) are a source of entrepreneurial opportunity, this according to a study done by Shane (2004).

Aldrich and Wiedenmayer (1993) found that educational infrastructure was a source of entrepreneurial opportunity because scientific research creates knowledge which gives rise to opportunities and these institutions are also responsible for the dissemination of this information.

2.8.2 The Discovery of Opportunity

According to Shane (2000), some people recognise an opportunity whilst others not due to the disproportionate distribution of information. He also goes on to say that the tendency to discover an entrepreneurial opportunity is supported by both psychological (cognitive capabilities/ opportunity recognition) and non-psychological (access to information) characteristics.

Access to Information

According to Hayek (1945) people have a disproportionate access to information and are therefore able to discover opportunities that others cannot or are simply “ignorant” of. Information about resources that have not realised their full potential or an un-met or local

need/demand is discovered this way (Casson, 1982). Venkataraman (1997) describes how ones job for example can be responsible for person to have access to specialised information that is not readily available to the general public.

a) Job Experience

Klepper and Sleeper (2001) describe how research and development jobs provide privileged access to information and this could lead to someone discovering opportunities as a result of this advantage. Aldrich (1999) goes further to say that research creates new technology that can lead to new opportunities for entrepreneurship. In terms of supply / demand patterns, people working in marketing departments of companies have access to this type of information (Johnson, 1986).

b) Variation in Experience

Shane (2004) believes that when people have experience that is diverse it provides access to information that gives rise to the discovery of opportunities. Empirical evidence by Dolton and Makepeace (1990), which surveyed 4016 British graduates, showed that a diverse working career enabled or increased the likelihood of people becoming entrepreneurs.

Information Search

Hills and Shrader (1998) showed that successful entrepreneurs usually search for business ventures or avenues that are not really available to the public at large. Information in the public domain is usually located in trade publications and newspapers.

Social Ties

Privileged access to information can be obtained when people use their network of friends and colleagues. The dynamics of this social network will influence the type, speed and amount of information they receive (Shane 2004).

Johansson (2000) posits that information regarding entrepreneurship, namely the location of a business, its current and future markets and sources of capital, is usually spread amongst a number of people. As a result the diversity of ones social network is important in combining this information to form a holistic approach to the discovery of an opportunity.

2.8.2.1 Discovering the Opportunity

Absorptive capacity and cognitive processes are essential in aiding an individual in discovering an opportunity.

Absorptive Capacity

Based on ones prior information or knowledge one is able to sift through information and recognise opportunities. Prior knowledge therefore is a foundation of absorptive capacity that accentuates the acquisition of further knowledge about markets, technologies and process dealing with production (Cohen and Levinthal, 1990). Venkataraman (1997) goes on to describe how “knowledge of an unmet market need, a technical problem or a customer complaint gives rise to the formulation of solutions.” Yu (2001) says that the bank of information that people have influences their ability to see solutions to problems. Shane (2000) concurs in that he says that market demand conditions are easily recognised with prior market knowledge, and this can discover an opportunity.

Industry knowledge via career experience of how to serve markets also facilitates the entrepreneurial opportunity. Johnson (1986) says that prior market knowledge assists an individual to better predict the production or marketing profit that can be achieved from a new product or service. Johnson (1986) also discovered that entrepreneurs often start businesses that produce products that are similar to their previous employers.

Cognitive Processes

Cognitive processing differs between people and thereby influences how the discovery of an opportunity occurs. Kirzner (1997) calls this cognitive processing “alertness of opportunity.” Another research by Gaglio and Katz (2001) concludes that in terms of cognitive processing, some people are better at seeing a relationship or pattern than others. Some vague links are made by some while others see no link at all. Some categorize information and evaluate assumptions better than others, all of which facilitates their ability to discover opportunity.”

Sarasvathy, Simon & Lave (1998) concur but go further to say that some people perceive information as an “indicator of opportunity” while others see it as an “indicator of risk.”

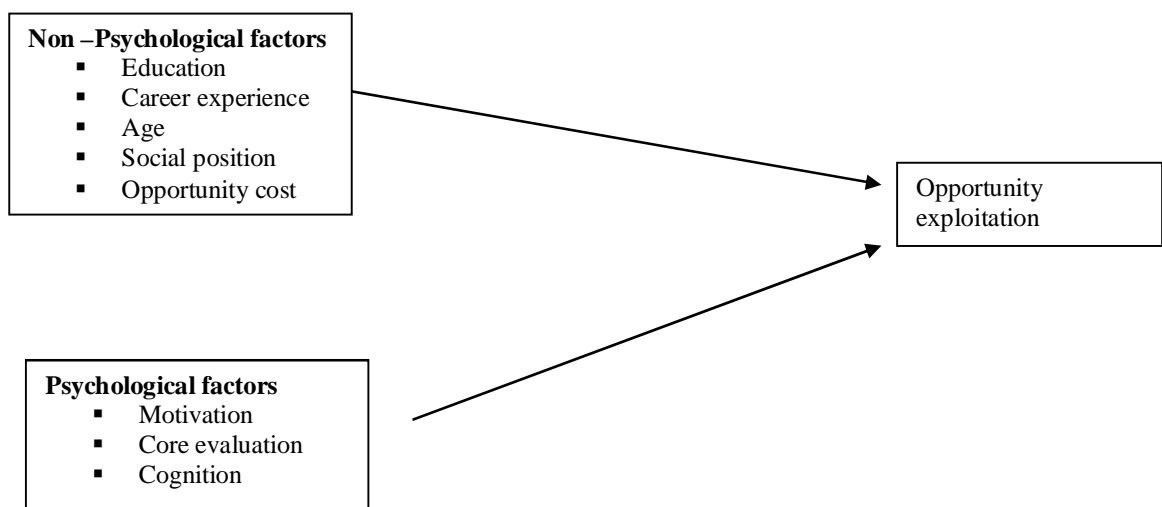
Intelligence although controversial in its definition has been found to have a positive link to entrepreneurship. A study by Van Praag and Cramer (2001) showed that of the 1763 students that were measured at the age of 12 and subsequently measured again at the age of 43 and again at the age of 53 showed that there were 258 of which were always self employed. When their IQ scores were compared with a model that measured entrepreneurial talent there was a positive correlation with their age 12 IQs.

Perceptive ability is another characteristic that has been shown to have a positive link to entrepreneurship. Hills, Shrader and Lumpkin (1999) showed that the majority of the business owners used intuition and gut feeling rather than customer surveys to identify more opportunities than the average person.

In terms of creativity Harper (1996) says that entrepreneurship involves creativity and imagination because it involves identifying and creating solutions to problems, usually providing more than one solution. Another study showed that people who founded firms had more imagination than those who ran family businesses. Firm founders also scored higher in terms of innovativeness.

In terms of seeing or perceiving risks one study that compared firm founders with those of managers in the same industry, whom had decided against starting their own business found that they saw more risks than those whom had formed businesses. According to Shane (2004) this points to the fact that self-efficacy or personal self- confidence is a vital component in that it allows people to see opportunity where others see only the risk.

2.8.3 Decision to Exploit an Opportunity



The effect of individual attributes on the decision to exploit (adapted from Shane 2004)

When examining the decision by a nascent entrepreneur to exploit an opportunity these factors are of particular significance according to the model above.

Non Psychological Factors

- a) Education
- b) Career experience
- c) Age
- d) Social position
- e) Opportunity cost

Psychological Factors

- a) Motivation
- b) Core evaluation
- c) Cognition

2.8.3.1 Non Psychological Factors

Opportunity Cost

Opportunity cost is an important factor a prospective entrepreneur has to consider when evaluating the decision to exploit. According to Gifford (1992) high opportunity costs prevent people from exploiting opportunities. Further to this some have low opportunity costs making any opportunity viable such that they have nothing to lose.

An important factor to consider is the present income of prospective entrepreneurs. According to Shane (2004) people whose salaries are at the high end of the scale will be less likely to exploit opportunities and says that many studies have shown this trend. This leads the author to question whether the opportunity cost threshold of those that finished matric and obtained some work experience is low enough for them to pursue a given opportunity or whether industry has secured for them a comfortable niche in which to exist. This is also applicable to graduates of tertiary education too.

Unemployment reduces a person's opportunity cost significantly and this has the effect of forcing them into some type of self-employment. Taylor (2001) found evidence of this trend in a British household survey, where intentions of self employment were converted into action. Another factor that reduces the opportunity cost is having a spouse that is employed. Several studies show a positive correlation for this including a study by Butler and Herring (1991) where 7542 respondents were examined over a 5 year period. The study showed that being married increased the likelihood that one would be self-employed.

Education

According to Casson (1995) education helps a person to improve their analytical ability and their understanding of entrepreneurship thereby improving their entrepreneurial judgement. Clouse (1990) goes further to say that students' approach to cash flow and managerial fit was enhanced after they were taught 'new venture evaluation.' When a person is educated about exploiting an opportunity then the uncertainty of the exploitation is reduced (Herbert and Link, 1988).

Post school education covers business evaluation and therefore one would expect this to have a positive effect on entrepreneurship as the uncertainty is reduced. The Consortium for Entrepreneurship Education (2010, http://www.entre-ed.org/Standards_Toolkit/benefits.htm) indicates that the following benefits can be realised from entrepreneurship education:

- a) "Skills to start a business"
- b) "Skills in maintaining business longevity"
- c) "Knowledge of business failures and why businesses close soon after start- up"
- d) "Access to resources and services"
- e) "Business management skills together with operational skills"
- f) "The creation and use of business plans"
- g) "Change attitudes towards entrepreneurship"
- h) "Change personal and career attitudes"

Career Experience

Self efficacy or self confidence is based on an individual's self confidence in respect of their self perceptions of their skills and abilities (Shane 2004). According to Bandura (1997) this self-confidence has a direct link as to whether a person is able to convert this skill into some successful venture. Urban, van Vuuren and Barreira (2008), in their study on the relevance of business knowledge and work experience on venture success found that there was a positive correlation between work experience and entrepreneurial success.

It therefore follows that if a person is self confident in his /her field of employment then there must be a probability that they would feel confident in setting up their own business in a similar/ related field. When a person has general business experience (sales, finance, logistics, marketing and organisation) there is an increased likelihood that they will pursue an entrepreneurial opportunity that they have come across (Romanelli and Schoonhoven, 2001).

Functional experience is another area that a person can draw on to enhance self-efficacy. Shane (2004) says that people with careers in finance and accounting are less likely to become entrepreneurs than those with experience in product development and marketing.

Start-up experience is another factor that enhances the likelihood that a person will exploit an opportunity. According to Campbell (1992) learning by actually performing the task is more valuable because one gains the practical information needed and it places the person in the right environment where the entrepreneur is familiar with the industry players. And Shepherd, Douglas and Shanley (2000) goes on to say that previous start up experience gives the entrepreneur the tacit knowledge needed to exploit an opportunity. Kor, Mahoney and Michael (2007, p1195) also say that “experience in a firm operating in a particular industry allows managers to gain tacit knowledge about the firm’s resources, capabilities and operations.”

Age

Shane (2004) speaks of the “curvilinear relationship” of age to the likelihood of opportunity exploitation because age takes into account the positive effect of experience (which comes with age) and the negative effect of opportunity costs. But as people get older the positive effects turn negative as older people are less comfortable to deal with uncertainty. In other words as people get older they are less comfortable with exploiting a business opportunity.

Social Position

Social status influences a person's ability to convince others that their ideas are viable. Shane and Khurana (2001) found that the likelihood of an inventor's firm being formed increased with a person's rank at the Massachusetts Institute of Technology. This shows that the higher the person's rank the more confidence they possess and the more likelihood that they will turn their inventions/ ideas into businesses.

A person's social ties also have a positive effect on the formation of a business. Aldrich (1999) stated that social ties aid an entrepreneur in obtaining information on resources and other related aspects to entrepreneurship. This enables people to gain information that is otherwise difficult to gain.

2.8.3.2 Psychological Factors

Extraversion

Barrick and Mount (1991) describe extraversion as a personality that has the following characteristics namely; "sociability, assertiveness, ambition, initiative, impetuosity, expressiveness, gregariousness, talkativeness and exhibitionism." Shane (2004) describes a person that has these qualities as being most likely to exploit opportunities. Empirical evidence also supports this assertion; Wooten et al (1999) in their study on 94 unemployed executives found that those that started businesses were more sociable than those that had not.

Agreeableness

Barrick and Mount (1991) describe agreeableness as a personality having the following characteristics namely; "friendliness, social conformity, compliance, flexibility, tendency to trust, cooperativeness, tendency to forgive, tolerance, soft heartedness and courteousness." Shane (2004) describes these qualities as that of a person not likely to exploit an opportunity.

The Need for Achievement

According to Shane (2004), the need for achievement motivates people to perform activities where they accept personal responsibility for the outcomes. Therefore people with high need for achievement that are involved in entrepreneurship take responsibility for solving all types of problems. This taking of responsibility requires a person to want to meet the challenges that are present. Harper (1996) describes this willingness to take responsibility and ability to do so as characteristic of a person with a high need for achievement.

According to Miner (2000) a person with a high need for achievement has the second personality trait, which involves “goal setting, planning and the collation of information.”

The third trait is one where perseverance plays a role because the entrepreneur will have to maintain persistence during uncertainty and periods of failure (Wu, 1989). In a study conducted by Hines (1973) which compared a similar number of entrepreneurs to engineers, accountants and middle managers, found that entrepreneurs had the highest need for achievement from all the groups studied. Caird (1991) performed a similar study and compared entrepreneurs to teachers, nurses, clerical trainees, civil servants and lecturers and found the same trend. Johnson (1989) also found that business owners that had a higher need for achievement had faster growing businesses than business owners that had a lower need for achievement.

Risk Taking

According to Wu (1989), people with low aversion to risk have a greater chance to pursue opportunities because risk is a fundamental part of entrepreneurship. Also before a product is introduced into the market the prospective entrepreneur cannot know if the risk bearing elements like meeting customer needs in the face of competition, production, price and adoption will be realised. Audretsch and Keilbach (2007) say that risk can be calculated and the reward worked out. By contrast in uncertainty none of these elements can be calculated.

Empirical evidence by Begley and Boyd (1987) showed that entrepreneurs had a greater chance of taking a risk than business managers. Stewart et al (1999) confirmed this finding independently with 324 business owners as well as 342 business managers. Stewart and Roth (2001) provided the strongest evidence of this relationship where they conducted a meta-analysis of 12 previous studies and confirmed the findings. Florin, Karri and Rossiter (2007) say that researchers have found that entrepreneurs are more inclined to be achievement orientated than the population in general. The same researchers go on to say that intention to take a risk is dependent on the entrepreneurs' perception of "personal and social desirability" of their actions. Florin et al (2007) say that what entrepreneurs also consider is their perceptions as to whether they believe that they will be successful.

Desire for Independence

According to Wu (1989) desire for independence has a positive correlation to opportunity exploitation because one needs to follow ones' own judgement and make decisions that go against the norm. Cromie (1987) confirmed this empirically.

Core Evaluation

Core evaluation includes self-efficacy and control.

Locus of Control

Rotter (1966) defined locus of control as a belief held by someone that they have control and influence over their environment. Shane (2004) believes that people with an internal locus on control have a greater propensity to exploit an opportunity than those with an external locus of control. Caird (1991) showed this correlation empirically. Cromie and O'Donoghue (1992) confirmed this relationship.

Self-Efficacy

Self-efficacy according to Bandura (1997) is based on individuals' self perceptions of their skills and abilities. It is a belief of their abilities to convert their skills into an outcome. Florin et al (2007) say that the definition of self-efficacy in the business sense is having "an attitude that is derived from a person's self-confidence and perceived competency in their business ability." According to Baron and Markham (1999) who did a study on 78 inventors, found that those that converted their inventions to businesses also had higher self-efficacy than those that did not. Bandura (1997) has conclusively shown that people with high self efficacy for a certain task are more likely to pursue and persist in that task when compared with those that do not.

Shane (2004) says that people with high entrepreneurial self efficacy believe that they have a viable business idea.

The Role of Education in Enhancing Self- Efficacy

Bandura (1992) posits that self- confidence comes from four sources namely; 'mastery experiences, modelling, social persuasion and judgements of one's own physiological states.' Cox, Mueller and Moss (2002) state that mastery experiences (learning by doing) are the basis in determining ones' self-confidence to perform future related tasks. Aronsson (2004) encourages the use of apprenticeships in entrepreneurship. Cox et al (2002) advocates the use of role models because individuals can use them for personal comparison. Shane (2004) encourages social persuasion whereby professors and instructors give positive feedback to encourage students.

According to Shane (2004) the effectiveness of entrepreneurship education has been inconclusive. Peterman (2002) however found that participation in an entrepreneurship program did increase perceived feasibility in starting one's own business.

Cognitive Characteristics

Over Confidence

There is a positive correlation between overconfidence and the exploitation of entrepreneurial opportunities (Busenitz, 1999). The same author goes on to say that these people act even though they do not have all the information. Aldrich (1999) states that when entrepreneurs are more confident than normal, they tend to believe more in themselves. This attitude results in them having a tendency to “overstate their own skills and abilities.” Bhide (2000) on the other hand states that they tend to exploit opportunities even though they lack competitive advantage. Overconfidence can be linked to entrepreneurial drive. Entrepreneurial drive according to Florin, Karri and Rossiter (2007) “is an individuals’ perception of the desirability and feasibility to proactively pursue opportunities as well as to respond to challenges and obstacles in innovative ways.”

2.8.4 Resource Acquisition

In terms of obtaining resources in the South African context the importance of business plans takes high priority.

The Importance of Business Plans

Pretorius and Shaw (2004) outlined the main headings that must be included in business plans, viz:

- a) Executive summary
- b) A business description
- c) A marketing plan
- d) A management plan
- e) A financial plan
- f) A manufacturing and operating plan

- g) Critical risks description
- h) Future growth and contingency plan

Pretorius and Shaw (2004) in their study of the four major banks in South Africa with regard to the importance of business plans in the bank decision process found inter alia that the assets and the credit worthiness of the owner were of utmost importance. Also many feasible applications, irrespective of potential, were rejected due to there being insufficient deposits by the owner. This occurs, despite the guarantees that are provided by Khula (finance institution for SMME's) for "weak applications."

2.8.5 Entrepreneurial strategy, Organising processes and Performance will not be discussed in this study as this could form part of a more in depth study into the different strategies that entrepreneurs used as well as the process of organising these strategies to make them work. Performance was only touched on in the questionnaire but actual performance information was not elicited as this would have meant getting figures on business turnover which would have caused respondents to become very reluctant.

2.9 Entrepreneurship Courses

Wits Business School offers a Management in Entrepreneurship and New Venture Creation (MMENVC). This programme runs for 14 months. The application process has the following requirements:

- Application Form
- Motivational Letter
- Current Curriculum Vitae
- Reference Forms
- Academic Transcript
- Application Fee for non-South Africans
- Admission Testing Results
- Two photographs must be submitted together with your application form. The

photographs must be recent, in black and white, 5,5 cm high x 4 cm wide (passport size), full face and taken against a plain background. Please print your name clearly on the back of the photographs.

- Admission Test

In order to apply the following need to be met:

- First degree (preferably an Honours degree, but a first-class Bachelors degree from any discipline is recognised)
- Post-university experience - it is an advantage, but not a requirement
- Acceptable WBS psychometric test score
- Mathematics - a level of competence equivalent to the requirements of the SA
- Matriculation certificate is advisable

The following modules are covered:

- Entrepreneurship Theory and Practice
- Corporate Entrepreneurship
- Enterprise Development
- Global Entrepreneurship
- Social Entrepreneurship
- Technology and High Growth Entrepreneurship
- Business for Economics
- Business Accounting and Finance
- Research Theory and Design
- Research Methodology

The above course costs R145 076 in 2012.

GIBS offer a similar programme called a certificate in Entrepreneurship. This programme runs for a period of 12 months. The following modules are covered:

- Business Systems (Integrative module)
- Accounting and Finance (Fundamental module)

- Marketing and Sales (Fundamental module)
- Business Law (Fundamental module)
- Operations and Technology (Fundamental module)
- Human Resources (Fundamental module)
- Leadership (Integrative module)
- Business Strategy (Integrative module)
- Integrated Business Improvement Project

The following are required in order to qualify:

- Academic history
- A 250 word motivational essay as to why this programme will be of benefit
- A career history

The above course costs R43900 in 2012.

The courses outlined above are aimed at the formal sector as the requirements for entrance into these programmes require some post matric qualification. Also the cost of these courses is, in the opinion of the author, very expensive.

2.10 Conclusion

The information gathered in the literature survey paints a very bleak picture of the South African economy. Since political liberation in April 1994, the government identified that SMME's need to be supported as it formed an important part of the economy. Looking at the data from 2001 to 2010 this intervention is having no effect at all. As at 2010 the number of people unemployed numbered 4.137 million. This represents an unemployment rate of 24%. With the current absorption rate of the economy of 40.8%, it means that the unemployment rate has little chance of coming down as the economy cannot absorb the new entrants into the market fast enough. The SMME sector accounts for more than 70% of the employed and this is a critical component in the economy. It also accounts for 48.3% of the GDP of South Africa. This also is a significant number. GEM reports from 2001 to present, has identified the poor quality of education and skills.

GEM (2006) cites factors that hinder entrepreneurship, and says that the education system does not foster entrepreneurial education as well as banks need too many guarantees for loans. The South African government has initiated programmes to counter this problem where it has identified the need for a national entrepreneurship program and the need for the expansion of education and training for SMME's. The availability of capital from various government and non-government organisations begs the question, what percentage of the annual amounts allocated has been loaned to prospective entrepreneurs? Since the unemployment is still high it implies that the uptake of the funds slow or the skills needed to uptake the funds are non-existent. Another factor could be that African people not predisposed culturally to be entrepreneurs, but this will not be explored in this study.

Looking at the figures it shows that adult entrepreneurial education does not address the needs of the economy in terms of entrepreneurship, this is confirmed by the GEM studies. In the GEM studies it has been said that the South African entrepreneur operates in an environment where there are more factors negative for entrepreneurship than there are factors positive. Education and training as well as the necessary skills are consistent factors highlighted that hinder SMMEs. When compared to its peers (efficiency driven economies) what becomes clear is that South Africa is once again at the lower end of the scale. The Global competitiveness report (GCR) - (2009) rates South Africa's 'inadequately educated workforce' as the most problematic factor for doing business in this country.

This study therefore attempts to establish whether adequate entrepreneurial education takes place at schools. It also tries to determine whether adult / post school education plays a role in entrepreneurship. Also being questioned is whether entrepreneurs are aligned to their primary business training. Another question given the low absorption rate is the incubation period that prospective entrepreneurs go through before setting up and managing and SMME. This incubation period needs to be as small as possible if it is going to have an impact on the current rate of unemployment.

The two formal entrepreneurship courses that were looked at seemed out of the reach of the ordinary South African, with one requiring at least a Bachelors degree as a pre-requisite. The

other offering is about a third of the cost, but still is, in the opinion of the author, still very expensive. The course content however seem to be similar, with regards to business economics and finance.

In chapter three, the research methodology is discussed.

Chapter 3

Research Methodology

3.1 Introduction

There are two types of studies that are usually undertaken, namely a quantitative or a qualitative study. Sometimes a combination of the both is used. There is a debate as to which of the two types of study (data collection and analysis method) is more accurate (Ghauri and Gronhaug, 2002). The same authors go on to say that “methods or techniques are not better just because they are quantitative; it all depends of the problem and the purpose of the study” (Ghauri and Gronhaug, 2002, p85).

This study is a quantitative study, which according to Saunders, Lewis and Thornhill (2009) is used when meaning can be derived from numbers. The collection of data results in numerical and standardised data which can be manipulated accordingly to provide meaning. This data can then be analysed via diagrams and statistics. Saunders et al (2009) go on to say that numerical data is termed as “quantifiable” and is more “precise” than categorical data. Here a far wider range of statistics can be applied due to the nature of the data. In this study the sub category of numerical data used is interval data because the “difference between 2 data points can be stated but not the relative difference” Saunders et al (2009, p418).

Categorical data for example in the production of car types will be categorized into coupe, saloon and hatch. This kind of data cannot be defined numerically or ranked for that matter (Saunders et al, 2009).

This research used a structured questionnaire to elicit information from respondents and from this, attitude scaling was determined. Ghauri & Gronhaug (2002, p93) says that the survey is “an effective tool to get opinions, attitudes and descriptions.”

According to Blumberg, Cooper & Schindler (2011), a detailed account of the process followed during the research increases the “accountability” of the research. They go on to say that the following are considered prudent in any research, namely:

- a) **Population used:** The population in this study are entrepreneurs in the Edenvale and Midrand area of Gauteng.
- b) **Sampling method:** The method used was non probability purposive sampling. The theory of this sampling method is detailed below.
- c) **Communication approach used:** A self-administered questionnaire was used.

3.2 Scaling of the Questions

The respondent’s attitude was captured in the 10-point numeric rating scale. “In such rating questions it is important that the numbers are able to reflect the feeling of the respondent to the question at hand” Saunders et al (2009, p379). They go on to say that, “only the end categories are labelled and are known as self- anchoring rating scales” Saunders et al (2009, p379).

The example cited in Saunders et al (2009) is:

The concert was

Poor value for money									Good value for money
1	2	3	4	5	6	7	8	9	10

3.3 Pilot Study

Saunders et al (2009, p394) say that the purpose of the pilot study is to obtain the following information:

- a) “How long the questionnaire took to complete”
- b) ‘The clarity of the instructions”
- c) “which, if any, questions were unclear or ambiguous”
- d) “Which , if any, questions the respondent felt uneasy about answering”

- e) “Whether in their opinion there were any topic omissions”
- f) “Whether the layout was clear and attractive”
- g) “Any other comments”

A pilot study was conducted on 5 people in order to determine if the questionnaire had any double barrelled or vague questions and to check for validity of the questions. A few minor alterations were made and question 23 was modified as it was vague.

3.4 The Research Process

In this research the population was estimated to be several thousand. 80 questionnaires were issued and a total of 75 people responded, the other 5 decided not to participate. In the light of the relatively small sample size this research has not received enough responses to be completely statistically sound however as there were more than thirty respondents the work is statistically acceptable (Saunders, Lewis & Thornhill 2009). The method used was non probability sampling. The sub branch was purposive homogenous sampling.

The communication approach used was a survey in the form of a questionnaire. Each business owner was approached and the survey was introduced. The topic and its purpose were then discussed. Each question was then discussed with the entrepreneur to make sure that he/she understood and that there was no confusion. Respondents were given the email address as well as the telephone numbers of people conducting the research, as part of the questionnaire, so that should there be any queries during answering the questionnaire the respondent could call.

Lastly the respondent was made aware that they were not under any obligation to answer the questionnaire and that they could withdraw at any given time. Each respondent was given a few days to answer the survey. Upon collection of the questionnaires, an inspection was done to establish if there were any unanswered questions. These were then discussed, clarified and the necessary answers obtained.

3.5 Reliability and Validity

3.5.1 Reliability

Reliability according to Saunders et al (2009, p156) refers to the extent to which the data collection and analysis thereof will produce consistent results. In order to determine this, the following three questions are usually evaluated, namely:

- a) “Will the same measures used in this survey produce the same results in other occasions?”
- b) “Will similar observations be reached by other observers?”
- c) “Is there transparency in how deductions were made from the raw data?”

In order to answer the above the following review needs to be done (Saunders et al 2009)

- a) **Subject or Participant error**- this was prevented from happening by only approaching entrepreneurs during quiet periods of business activity.
- b) **Subject or participant bias**- this was prevented by emphasising to each respondent that anonymity is guaranteed.
- c) **Observer error**- this was circumvented by having a structured questionnaire.
- d) **Observer bias**- this was prevented by interpreting all the answers the same way.

Every effort was made to ensure that this research was conducted impartially and that in interpreting the data a scientific and objective approach was used. As a result there is every reason to believe that if this research were to be conducted by other researchers, the results would be the same.

3.5.2 Validity

Validity according to Saunders et al (2009, p157) “is about whether the findings are really about what they appear to be about.”

In order to answer the above the following review needs to be done (Saunders et al 2009)

- a) **History**- there was no real historical threat to the validity of this research.
- b) **Testing**- all participants were made aware that data from this research is confidential and that their answers will not influence them in any way.
- c) **Mortality**- all participants were made aware that they were free to drop out at any time during this survey.

This research is valid as the questions posed in the questionnaire are related to the objectives.

3.6 Problems encountered during the research (Fieldwork):

- a) Most entrepreneurs were initially reluctant to answer until the purpose of this study was properly explained.
- b) Question 12 was the most problematic question amongst respondents as it asks whether the growth of their business has been higher or lower than inflation. For some reason it was viewed by a few respondents as a personal question, although no figures were asked to be divulged.

3.7 Questionnaire Construction

The following are the broad based headings that were used to elicit the answers needed for this study:

No	Heading	Question Number
1	Age, Gender	1a,1b
2	Education Level	2, 3
3	Industry experience prior to starting SMME	4
4	Perception of psychological factors	6, 7, 8,
5	Perception of non-psychological factors	9, 13, 14, 23
6	Motivation for Entrepreneurship	10
7	Influence of Family on Entrepreneurship	11

8	The perception of the current education system in South Africa	21
9	The influence of the access to Finance	24
10	The perception of Government's responsibility	17
11	Perception of own Performance	12, 15, 16, 18
12	Perception of External Environment	19, 20

Non- Probability Sampling

In non-probability sampling, the probability of each case being selected is not known (Saunders, Lewis & Thornhill, 2009). It is therefore impossible to make statistical inferences about the population. One can however make generalizations about the population but not on a statistical basis. Limited resources can also be a reason to select a non- probability technique.

3.8 General Theory on Sampling

According to Blumberg et al (2011), the following reasons are given for the need to sample namely:

- a) It costs less than sampling the entire population
- b) There is greater accuracy of results
- c) There is quicker data collection and processing

In order to establish a good sample, one has to have a sample that is valid. A valid sample is representative of the population in question. There are 2 important elements that a valid sample must have namely accuracy and precision.

- a) **Accuracy** - is the degree to which bias is absent from the sample. When a sample is taken properly then some elements “underestimate” while others “overestimate” the population elements being studied. An accurate sample thus has a perfect balance between the “overestimators” and “underestimators” (Blumberg, Cooper and Schindler

2011, p205).

- b) **Precision** – no sample will represent a population in all the elements being tested, it is therefore expected that random fluctuations in the sampling process will give rise to “numerical descriptors” in the sample and population having a difference. This is referred to the sampling error. Sampling error is what remains when all sources of systematic variation have been taken into consideration. Precision is measured by the standard error of the estimate. There is an inverse relationship between the standard error of the estimate and the precision of the sample (Blumberg, Cooper and Schindler 2011, p206).

3.8.1 Non Probability Sampling (non- random sampling)

In the absence of a sampling frame (a complete list of all the cases in the population from which a probability sample is drawn), non- probability sampling is used. In this method, according to Saunders et al (2009), sample selection is based on “subjective judgement.” This type of sampling is suited for most exploratory work although it will not allow for the extent of the problem to be determined.

For this survey the sampling frame was too large (all businesses in Johannesburg) and limited resources prevented pursuing the probability sampling route. Also for this study no statistical inferences were made about the population. This method according to Bailey (1982) is unable to estimate the sampling error. The sampling error measures the degree to which the sample differs from the population. The advantage of non- probability sampling is that it is less complicated, less expensive and can be administered much quicker than probability sampling. In addition to this there is less statistical complexity in the desired result. Therefore in this research the non- probability sampling route was taken.

3.8.2 Selecting a Suitable Sample Size

There are no real rules when it comes to selecting a suitable sample size. What is important is the relationship between the sample selection technique and the focus of the research at hand Saunders et al (2009).

Saunders et al (2009) go on to say that validity and insights that are obtained from the data collected will be more to do with the collection and analysis it rather than the size of the sample. Some literature also refers to collecting data until data saturation is reached, this means that collection stops when there is no change in the analysis results(no new insights gained) with further data collection.

Saunders et al (2009, p235) cites Guest et al (2006) in pinning down the number of interviews that are needed, 'For research where commonality in a fairly homogenous population needs to be understood, 12 in-depth interviews should be adequate. Saunders et al (2009, p235) cites Creswell (2007) when it comes to a heterogeneous population or where the research question is broad based and recommend 25 to 30 interviews. In this study 75 questionnaires were completed from a homogenous sample.

3.8.3 Purposive Sampling/ Judgemental sampling

According to Dane (1990) purposive sampling is often used in exploratory or pilot projects where one wants to obtain a sample of specific individuals. Saunders et al (2009) and Bailey (1982) explain that it enables the researcher to use his/her judgement to select cases that will best meet their objectives. Bailey (1982) says that it differs from quota sampling as one does not have a quota from the various strata to fill in and is not like convenience sampling where the nearest respondents are chosen.

Purposive sampling can also be used by researchers where initial data collected provides the background on how to proceed in future sampling exercises, also called grounded theory

strategy. Saunders et al (2009) say that the logic for selecting cases for purposive sampling is dependent on the research questions and the objectives of the research.

Saunders et al (2009) say that ‘information rich’ respondents is to purposive sampling what being statistically representative is to probability sampling.

There are 5 different types of Purposive Sampling

- a) Extreme Case or Deviant Sampling
- b) Heterogeneous or Maximum Variation Sampling
- c) Homogeneous Sampling
- d) Critical Case Sampling
- e) Typical Case Sampling

3.8.3.1 Extreme Case or Deviant Sampling

This method according to Patton (2002) focuses on unusual or special cases with the view that the data collected will allow the researcher to learn the most about the topic, answer the research question as well as meet the objectives of the study.

3.8.3.2 Heterogeneous or Maximum Variation Sampling

In this method the key themes are identified from the collection of data. Patton (2002) argues that although the small sample may have extreme cases it is considered a strength. Any patterns, however, that are likely to emerge from this will represent the key themes of the findings. Diverse characteristics are identified prior to sample selection to ensure that the sample has maximum variation (Patton 2002).

3.8.3.3 Homogeneous Sampling

Homogeneous sampling on the other hand focuses on the sub group where all the members of the sample are similar (Saunders et al 2009). This characteristic allows the researcher to study the group in greater detail. This was the sub branch of purposive sampling that was used in this study as all the respondents had the same occupation, namely they were entrepreneurs.

3.8.3.4 Critical Case Sampling

This type of sampling allows the researcher to make the point of the research very clear or lucid as only the critical cases are selected. 'The data collection process focuses on understanding what is happening in each critical case so that logical generalizations can be made' (Saunders et al 2009).

Patton (2002) outlines the identification of the critical cases as being:

- a) If it happens in one place will it happen everywhere?
- b) If a group are having a problem, can one be sure that everyone will be having problems?
- c) If they cannot understand the process then is it likely that no one can understand the process?

3.8.3.5 Typical Case Sampling

This type of sampling is usually used as part of a research project to provide a typical profile using this representative case. This enables anyone (even those not familiar) to understand the profile of a typical case (Saunders et al 2009).

3.9 Conclusion

This chapter has covered the theoretical concepts from authors to explain the process followed during this research. The sample size was discussed as was the reliability and validity of the research. Questionnaire construction was also outlined as well as the due ethical considerations that accompany the data collection procedure. Purposive judgemental sampling was used and reasons why it was chosen were advanced. For this study typical case sampling was used. The data collection was done using a structured questionnaire. The analysis was done using SPSS 19. A summary of the data is presented in the following chapter. Chapter Four which follows contains the findings.

Chapter 4

Presentation of Results

4.1 Introduction

This chapter contains the findings of this research. All data was processed using SPSS-19. Data was loaded onto the programme and verified for accuracy prior to processing. Since this study used mainly continuous variables, descriptive statistics was used to evaluate the data. The questionnaire was divided into sub-headings and each question was processed the same way. Each question has the number of respondents that answered (N), the range, the mean, the skewness as well as Kurtosis.

4.2 Presentation of the Findings

4.2.1 Age and Gender

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
1a	Age group	75	1.00	6.00	3.3333	.298	.277	-.632	.548
1b	Sex	75	1.00	2.00	1.1600	1.893	.277	1.626	.548
	Valid N (listwise)	75							

The average age was between 35 – 39 years of age. The mean of the gender was 1.16 indicating that the majority of the participants were male.

4.2.2 Education Level

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
2	No of years formal education	75	1.00	5.00	2.7867	.366	.277	-.945	.548
3	Highest qualification prior to smme formation	75	1.00	7.00	3.5200	.069	.277	-1.095	.548
	Valid N (listwise)	75							

The mean for the number of years of formal education is 2.79; this corresponds to 3-4 years of formal post school education (after rounding off). The highest qualification attained prior to starting an SMME on average corresponds to a post matric certificate.

4.2.3 Industry Experience prior to starting SMME

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
4	No. of years employed prior to smme formation	75	1.00	6.00	4.0267	-.315	.277	-.588	.548
	Valid N (listwise)	75							

The average amount of industry experience gained prior to starting their SMME is between 6-10 years. This tells us that on average an entrepreneur spends between 6-10 years during the ‘incubation period’ in order to obtain the necessary confidence levels.

4.2.4 Perception of Psychological Factors

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
6	Desire for independence	75	1.00	10.00	7.5200	-.852	.277	.619	.548
7	Self Confidence	75	1.00	10.00	8.1067	-1.207	.277	1.281	.548
8	Need for achievement	75	4.00	10.00	8.6800	-1.006	.277	.010	.548
10	Need or desire	75	1.00	10.00	8.0000	-1.302	.277	.743	.548
	Valid N (listwise)	75							

Respondents perceived the desire for independence as something that influences entrepreneurship. Self-confidence had a slightly higher mean of 8.11. This means that the respondents perceive the influence of self-confidence to be a slightly stronger factor than desire for independence in terms of its influence on entrepreneurship. Need for achievement was perceived as the strongest psychological factor influencing entrepreneurship. The impetus (need vs desire) for the respondent's entrepreneurship scored a mean of 8.00. This means that the driving force for entrepreneurship came from within.

4.2.5 Perception of Non-Psychological Factors

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
9	Aligned with primary business experience	75	1.00	10.00	6.1333	-.398	.277	-1.256	.548
13	Importance of education	75	1.00	10.00	7.9200	-1.149	.277	.845	.548
14	Importance of age	75	1.00	10.00	5.3733	-.016	.277	-1.302	.548
23	Opportunity cost	75	1.00	10.00	6.2267	-.417	.277	.291	.548
	Valid N (listwise)	75							

The alignment of the respondent's current business with their primary business experience scored a mean of 6.13, and taking the other factors indicate that most entrepreneurs preferred to stay in the industry they knew. The importance of education in starting/ setting up and managing one's own business scored a mean of 7.92, which indicates that the respondents perceive that education in general played a very important role in their entrepreneurship. The importance of age in starting/ setting up and managing one's own business scored a mean of 5.37 which indicates that age is not considered a significant factor in setting up and managing a business. The opportunity cost of setting up and managing one's own business scored a mean of 6.23, which indicates that the attraction of the corporate world can be considered a neutral factor in setting up and managing one's own business.

4.2.6 The Influence of Family on Entrepreneurship

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
11	Family played a role	75	1.00	10.00	6.9733	-.733	.277	-1.072	.548
	Valid N (listwise)	75							

The Influence of family on entrepreneurship scored a mean of 6.97. This shows that family on average did play a role in entrepreneurship.

4.2.7 Motivation for Entrepreneurship

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
10	Need or desire	75	1.00	10.00	8.0000	-1.302	.277	.743	.548
	Valid N (listwise)	75							

The impetus (need vs desire) for the respondent's entrepreneurship scored a mean of 8.00. This means that the driving force for entrepreneurship came from within.

4.2.8 The Perception of the Current Education System in South Africa

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
21	Education system fosters entrepreneurship	75	1.00	10.00	5.8800	-.191	.277	-1.164	.548
	Valid N (listwise)	75							

The perception of the current education system scored a mean of 5.88. This score suggests that on average the majority of the respondents are more or less neutral about whether the education system fosters entrepreneurship.

4.2.9 The Influence of Access to Finance

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
24	Access to finance	75	1.00	10.00	6.0400	-.315	.277	-1.287	.548
	Valid N (listwise)	75							

The extent to which the access to finance delayed entrepreneurs in the establishment of their SMME scored a mean of 6.04, indicating that the access to finance did not play a significant role in hindering the establishment of SMMEs.

4.2.10 Perception of Government's Responsibility

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
17	Government's responsibility	75	1.00	10.00	6.6667	-.410	.277	-.929	.548
	Valid N (listwise)	75							

The perception of government's responsibility in creating employment scored a mean of 6.67. This indicates that SMME owners do to a certain extent think that it is government's responsibility to create employment.

4.2.11 Perception of Own Performance

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
16	Successful entrepreneur	75	3.00	10.00	7.9600	-.508	.277	.055	.548
18	Confidence in economic future	75	1.00	10.00	7.6400	-.677	.277	.315	.548
12	Business Growth Higher/lower than inflation	75	1.00	10.00	6.3733	-.372	.277	-.178	.548
15	Certainty of success	75	2.00	10.00	8.1200	-1.076	.277	1.059	.548
	Valid N (listwise)	75							

The extent that SMME owners considered themselves as successful scored a mean of 7.96. This implies that most SMME owners consider themselves successful. The extent to which

SMME owners have confidence in their economic future scored a mean of 7.64. This implies that the majority of SMME owners have confidence in their economic future. In terms of whether SMMEs had business growth higher/ lower than inflation, the mean scored a value of 6.37, which indicates that on average business interviewed had higher than inflation growth rates. In terms of whether SMME owners are certain of success in the future the mean scored at a high 8.12, which indicates that SMME owners were confident of future success.

4.2.12 Perception of the External Environment (Country)

Question No		N	Minimum	Maximum	Mean	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
19	Confidence in future of SA	75	2.0	10.0	7.347	-.338	.277	-.278	.548
20	Inclination to emigrate	75	1.00	10.00	3.8267	.708	.277	-.752	.548
	Valid N (listwise)	75							

In terms of whether SMME owners had confidence in the future of South Africa, the mean scored a value of 7.35, indicating that SMME owners on average were confident of the future of South Africa. The extent to which business owners had an inclination to emigrate was tested and the mean scored a value of 3.83, which indicates that on average SMME owners had no inclination to emigrate.

4.3 Conclusion

The data presented in this chapter as well as its analysis was verified for accuracy in order to make sure that there were no mistakes when loading this data into SPSS-19. The analyses of the data, as well as the discussions of the findings are presented in the next chapter.

Chapter 5

Discussion and Recommendations

5.1 Introduction

This chapter contains a discussion of the findings; each sub heading from the questionnaire is discussed. In the analysis of the data, Kurtosis and Skewness is discussed. Kurtosis according to Aczel (1989) is a “measure of the relative flatness or peakedness of a frequency distribution.” A positive value indicates that the peak is relatively “peaked” while a negative value indicates a relatively flat distribution. A flat distribution means that extreme values are having an effect on the mean.

Skewness according to Aczel (1989) is a measure of the degree of asymmetry of a frequency distribution. As the skewness value gets larger than zero, the positive value indicates that the scores are biased to the low end of the scale while an increase in the values below zero indicates a bias towards the upper end of the scale.

A perfect distribution will yield a Skewness and Kurtosis value of zero, something that is a rare occurrence in social science studies (Pallant 2007).

5.2 Discussion of the Findings

5.2.1 Age and Gender

The average age of the entrepreneurs was between 35 – 39 years. The mean of the gender was 1.16 indicating that the majority of the participants were male. 63 of the 75 respondents are male. This means that 84% of the respondents are male. These figures start to build the profile of the entrepreneur.

5.2.2 Education Level

The mean for the number of years of formal education is 2.79; this corresponds to 3-4 years of formal post school education (after rounding off). The highest qualification attained prior to starting an SMME on average corresponds to a post matric certificate. This shows that the entrepreneur has some formal post school education. A post matric certificate is usually a minimum of 1 year and maximum of 2 years of study. From the results it appears that prior to starting a business on average the entrepreneur had a post matric certificate, but thereafter the entrepreneur studied further to obtain the necessary skills.

5.2.3 Industry Experience prior to starting SMME

The average amount of industry experience gained prior to starting their SMME is between 6-10 years. This tells us that on average an entrepreneur spends between 6-10 years during the incubation period gaining the valuable skills needed so that his/her confidence levels reach some critical mass whereupon they feel confident enough to open and manage their own enterprises. The findings here are of particular importance because it provides an indication of whether South African education system is entrepreneurial by nature. This result indicates that the education system is not entrepreneurial by nature.

5.2.4 Perception of Psychological Factors

Respondents perceived the desire for independence as something that influences entrepreneurship. The mean here came out at 7.52. The skewness factor of -0.852, indicates that the distribution is biased towards the high end of the scale. The positive Kurtosis value of 0.619 indicates a distribution that is rather 'peaked' or clustered in the centre with thin long tails. The mean compares well with general profile of entrepreneurs.

Self-confidence had a slightly higher mean of 8.11. This means that the respondents perceive the influence of self-confidence to be a slightly stronger factor than desire for independence in terms of its influence on entrepreneurship. The skewness factor of -1.207 indicates that scores are clustered to the high end of the scale. The Kurtosis value of 1.281 indicates a distribution that is rather 'peaked' or clustered in the centre with this long tails. The mean compares well with general profile of entrepreneurs.

Need for achievement was perceived as the strongest psychological factor influencing entrepreneurship. This scored a mean of 8.68. The skewness factor is -1.006 which indicates that scores are clustered to the high end of the scale. The Kurtosis value of 0.010 indicates a distribution that is almost near perfect distribution due to it having a value that is close to zero. The mean compares well with general profile of entrepreneurs.

The impetus (need vs desire) for the respondent's entrepreneurship scored a mean of 8.00. This means that the driving force for entrepreneurship came from within. In other words most entrepreneurs interviewed started their businesses out of desire rather than need. The skewness factor came out at -1.302, indicating that scores are clustered to the high end of the scale. The Kurtosis value of 0.743 indicates a distribution that is rather 'peaked' or clustered in the centre with this long tails. This also compares well with the general profile of entrepreneurs.

5.2.5 Perception of Non-Psychological Factors

The alignment of the respondent's current business with their primary business experience scored a mean of 6.13. The skewness factor is -0.398 which indicates that scores are clustered to the high end of the scale. The Kurtosis value of -1.256 indicates a distribution that is more flat than peaked. It points to there being cases in the extremes that are having an influence on the distribution. This indicates that while some entrepreneurs ventured out to other 'unknown' fields of business on average most stayed with what they knew. This is an important piece of information, because if adequate knowledge transfer about the general principles had taken place then most entrepreneurs would have, on average, entered fields outside their current

‘safe environment.’

The importance of education in starting/ setting up and managing one’s own business scored a mean of 7.92, which indicates that the respondents perceive that education in general played a very important role in their entrepreneurship. The skewness factor of -1.149 indicates that the distribution is strongly biased towards the high end of the scale. The positive Kurtosis value of 0.845 indicates a distribution that is rather ‘peaked’ or clustered in the centre with thin long tails.

The importance of age in starting/setting up and managing one’s own business scored a mean of 5.37 which indicates that age is not considered a significant factor in setting up and managing a business. The relatively low skewness factor of -0.016 indicates that the distribution is very slightly biased to the higher end of the scale. The Kurtosis value of -1.302 indicates a distribution that is more flat than peaked. It points to there being cases in the extremes that are having an influence on the distribution. This shows that age to a lesser extent had some influence on entrepreneurship, or entrepreneurs considered it not as important as other factors like education. This also points that entrepreneurship is perceived as a learned skill.

The opportunity cost of setting up and managing one’s own business scored a mean of 6.23, which indicates that the attraction of the corporate world is not a strong factor and can be considered a neutral factor in setting up and managing one’s own business. The skewness factor of -0.417 indicates that the distribution is biased towards the high end of the scale. The positive Kurtosis value of 0.0291 indicates a distribution that is rather ‘peaked’ or clustered in the centre with thin long tails. This is not clear though and needs further investigation. I also found that this question needed the most clarification from respondents and there is a possibility that this question was not properly understood.

5.2.6 The Influence of Family on Entrepreneurship

The Influence of family on entrepreneurship scored a mean of 6.97. This shows that family on average did play a role in entrepreneurship. The skewness factor is -0.733 which indicates that scores are clustered to the high end of the scale. The Kurtosis value of -1.072 indicates a distribution that is more flat than peaked. It points to there being cases in the extremes that are having an influence on the distribution. From this it appears that family played more of a supportive rather than a direct role in entrepreneurship.

5.2.7 Motivation for Entrepreneurship

The motivation for entrepreneurship was covered under psychological factors above.

5.2.8 The Perception of the Current Education System in South Africa

The perception of the current education system scored a mean of 5.88. This score suggests that on average the majority of the respondents are more or less neutral or unsure about whether the education system fosters entrepreneurship. The skewness factor is -0.315 which indicates that scores are clustered to the high end of the scale. The Kurtosis value of -1.287 indicates a distribution that is more flat than peaked. It points to there being cases in the extremes that are having an influence on the distribution. This question elicited a response that is consistent with the GEM findings discussed earlier which highlighted the problems with the education system in its current form.

5.2.9 The Influence of Access to Finance

The extent to which the access to finance delayed entrepreneurs in the establishment of their SMME scored a mean of 6.04, indicating that the access to finance did not play a significant role in hindering the establishment of SMMEs. The skewness factor is -0.315 which indicates

that scores are clustered to the high end of the scale. The Kurtosis value of -1.287 indicates a distribution that is more flat than peaked. It points to there being cases in the extremes that are having an influence on the distribution. This is not consistent with the GEM (2006) which indicated that access to finance is a problem. The reasons for this must be investigated as it could be that due to the onerous requirements by financial institutions people seek other sources of finance for example loans from family.

5.2.10 The Perception of Government's Responsibility

The perception of government's responsibility in creating employment scored a mean of 6.67. This indicates that SMME owners do to a certain extent think that it is government's responsibility to create employment. The skewness factor is -0.410 which indicates that scores are clustered to the high end of the scale. The Kurtosis value of -0.929 indicates a distribution that is more flat than peaked. It points to there being cases in the extremes that are having an influence on the distribution. This finding however is not consistent with GEM(2006) where it is expected that the general population would believe that it is governments' responsibility to create employment, while entrepreneurs not. Since the distribution is rather flat this question needs further investigation to establish why respondents feel that it is necessary for government to create employment, since they are themselves entrepreneurs.

5.2.11 The Perception of Own Performance

The extent that SMME owners considered themselves as successful scored a mean of 7.96. This implies that most SMME owners consider themselves successful. The skewness factor is -0.508 which indicates that scores are clustered to the high end of the scale. The Kurtosis value of 0.055 indicates a distribution that is approaching a perfect distribution due to it having a value that is close to zero as well as being peaked. This means that on average entrepreneurs considered themselves successful after going through the somewhat long 'incubation' period. This question is of particular significance because if respondents believe that they are not successful then there is likelihood that they would have exited their chosen

career of entrepreneurship. This could mean that the skills learnt would not be passed on to future generations.

The extent to which SMME owners have confidence in their economic future scored a mean of 7.64. This implies that the majority of SMME owners have confidence in their economic future. The skewness factor of -0.677, indicates that the distribution is biased towards the high end of the scale. The positive Kurtosis value of 0.315 indicates a distribution that is rather 'peaked' or clustered in the centre with thin long tails. This question is important because it looks to the future and it to a certain extent interrogates whether the entrepreneur feels s/he has enough skills to remain as an entrepreneur.

In terms of whether SMMEs had business growth higher/ lower than inflation, the mean scored a value of 6.37, which indicates that on average business interviewed had higher than inflation growth rates. The skewness factor of -0.372, indicates that the distribution is biased towards the high end of the scale. The Kurtosis value of -0.178 indicates a distribution that is more flat than peaked. It points to there being cases in the extremes that have an influence on the distribution. The purpose of this question was to see if high confidence levels translated into above inflation growth rates. This question shows that while on average business growth is slightly higher than inflation, some SMME owners did experience below average growth. This could be as a result of the October 2008 worldwide market crash. This issue needs further investigation and I suspect that some owners viewed this question with some caution.

In terms of whether SMME owners are certain of success in the future the mean scored at a high 8.12, which indicates that SMME owners were confident of future success. The skewness factor of -1.076 indicates that the distribution is biased towards the high end of the scale. The positive Kurtosis value of 1.059 indicates a distribution that is rather 'peaked' or clustered in the centre with thin long tails. This question takes the certainty of success to a higher level than that was asked above in terms of their economic future. This question shows that the incubation period as well as the post school education was adequate.

5.2.12 Perception of the External Environment (Country)

In terms of whether SMME owners had confidence in the future of South Africa, the mean scored a value of 7.35, indicating that SMME owners on average were confident of the future of South Africa. The skewness factor of -0.338, indicates that the distribution is biased towards the high end of the scale. The Kurtosis value of -0.278 indicates a distribution that is more flat than peaked. It points to there being cases in the extremes that are having an influence on the distribution. This question shows that there are some areas of concern that exists in terms of the future of South Africa that needs further investigation which will not be considered here. It does however tell us that despite the external environment (where there are more factors negative for entrepreneurship than there are factors positive GEM 2008) entrepreneurs do have confidence in the future of the country and this bodes well for the future transfer of knowledge.

The extent to which business owners had an inclination to emigrate was tested and the mean scored a value of 3.83, which indicates that on average SMME owners had no inclination to emigrate. The skewness factor of 0.708 indicates that the distribution is biased towards the low end of the scale. The Kurtosis value of -0.752 indicates a distribution that is more flat than peaked. It points to there being cases in the extremes that are having an influence on the distribution. This question confirms the question above that the South African entrepreneur will not be exporting the skills learnt to other countries. This is important because it promotes the future transfer of knowledge.

5.3 Conclusion

To arrive at a meaningful conclusion one has to examine the objectives of this study.

The First Objective: To establish whether adequate entrepreneurial education takes place at schools.

From the above survey it is apparent that this is not the case. On average the entrepreneur spent 3-4 years in formal post school education and on obtained a post matric certificate. If the secondary school education system was adequate in terms of entrepreneurship then people finishing would not seek formal education as a first choice. When looking at the Finscope Small Business Study (2006), those that had a matric qualification only belonged to the BSM (Business Sophistication Measure) category 5. In this category the annual turnover of their businesses were R27 841p.a. In the BSM category 6, 21% of the entrepreneurs had a post matric qualification, while 4% held a post graduate degree, and their annual turnover was more than double that of BSM category 5 at R66 597pa. BSM category 7 had 48% of the entrepreneurs having a post matric qualification, 8% with a bachelor's degree and 5% with a post graduate degree. Their annual turnover was almost 7 fold that of BSM category 6 at R463 747p.a. This survey confirms the findings of Finscope (2006) that adequate entrepreneurial education does not take place in schools. It is therefore recommended that entrepreneurial education start at both primary and secondary schools. The education and skills taught must be adequate such that a person completing matric must be able to start and SMME from scratch. This means that prospective entrepreneurs must be identified early in secondary schools and nurtured from there on.

The Second Objective: To determine whether adult education plays a role in entrepreneurship.

From above this appears to be a very important factor as on average the entrepreneur obtains a post school certificate that comprises of 1-2 years of formal education. This is then backed up with at least 6-10 years post school industry specific training. This is also the fifth objective of the study. This shows that in order for the entrepreneur to feel comfortable in owning and

managing a business he/ she has to get some type of formal education, but this is then backed by 6- 10 years of actually 'learning the ropes.' Once this incubation period is completed then only does the entrepreneur feel confident enough to open his own business.

In the Finscope Study (2006) BSM 5 and 6 had a similar percentage of entrepreneurs obtaining their skills from previous work experience, while BSM category 7 had more than double the respondents citing previous work experience as providing the necessary skills. In terms of a training program that could provide the necessary skills BSM category 5 entrepreneurs did not undergo such training, while 17% of BSM category 6 completed such training. 29% of BSM category entrepreneurs had undergone such training. This further emphasises the important role of adult entrepreneurial education. Thereafter entrepreneurs feel confident in their abilities as well as their economic future. This shows that adult entrepreneurial education (both formal and industry specific training) is effective in building the South African economy as most entrepreneurs feel confident of their economic future. Due to the long incubation period it is therefore recommended that early identification of prospective entrepreneurs takes place and some type of fast tracking happens so that they can become entrepreneurs sooner rather than later.

The Third Objective: To establish whether their current entrepreneurship was aligned with previous business experience

If entrepreneurs start SMME's that are aligned with their previous business experience, this implies that training took place. From the data above it can be seen that while some entrepreneurs ventured out to other 'unknown' fields of business on average most stayed with what they knew. This is an important piece of information, because if adequate knowledge transfer about the general principles of managing a business had taken place then most entrepreneurs would have, on average, operated in fields that were not so closely linked to their primary business experience. The study thus concludes that entrepreneurs experienced adequate knowledge transfer to start their own SMME's in closely related industries. While this is good in terms of increasing competition, the negative side points to there being a lack of innovation as entrepreneurs did not feel confident to venture out into unknown fields. It is thus recommended that further study be done in this area to establish the reasons that entrepreneurs

are not comfortable in unfamiliar environments.

The Fourth Objective: To establish the importance of education in setting up and managing an SMME as perceived by business owners themselves.

From the survey it was established that the respondents perceive that education in general played a very important role in their entrepreneurship. They also did not believe that the current education system fosters entrepreneurship. This general feeling about the existing system of education is also confirmed in the general profile of the entrepreneur, where all the entrepreneurs felt it necessary to complete some form of tertiary education prior to venturing into the business world. The Finscope Study (2006) also confirms this as indicated in the discussion above relating to objective 1 and 2.

The Fifth Objective: To determine the amount of adult education and training needed prior to setting up and managing a business.

Here it must be remembered that adult education is a combination of both post school education as well as industry experience. This has been established and discussed above

The Sixth Objective: This objective relates to entrepreneurs perception of the psychological and non-psychological factors that are pertinent to entrepreneurs as a whole.

The factors relate to; the desire for independence, self-confidence, the need for achievement and whether entrepreneurs started their businesses out of need or desire. This study established that entrepreneurs on the whole are aligned to literature in terms of their perception of psychological and non-psychological factors. Had this been different then it would raise alarm bells indicating that entrepreneurs were actually engaged in forced entrepreneurship. Forced entrepreneurship is something that can be detrimental to an economy as it stifles innovation and the transfer of knowledge from one entrepreneur to another will be of poor quality.

The Seventh Objective: To establish, given the external environment that entrepreneurs operate in, whether they consider themselves a success.

The entrepreneurs in general consider themselves successful and believe that they have a successful future. On average these entrepreneurs have no inclination to emigrate given the environment they operate in. The information gathered here tells us that although entrepreneurs operate in an environment that has more factors negative than there are factors positive GEM (2008) after obtaining the necessary adult education these entrepreneurs consider themselves successful. This contributes to perpetuating the transfer of knowledge from entrepreneur to prospective entrepreneur.

This study concludes that adult post school education and training does indeed address the needs of the economy in terms of entrepreneurship. The problem however seems to be the incubation period of between 6-10 years required in order to achieve necessary critical mass needed to convert the knowledge and experience into entrepreneurship. With the current labour absorption rate at 40.8% (Oct to Dec 2010; STATS SA), the incubation period of 6-10 years is too long to have a meaningful effect on the current rate of unemployment. There needs to be some intervention to increase the labour absorption rate.

It is therefore suggested that future research be conducted to find ways of increasing the labour absorption rate as well as to reduce the current incubation period. Also if entrepreneurs tend to only copy past business experiences this can lead to a lack of innovation, this needs to be researched.

Finally the research set out to determine whether adult entrepreneurial education plays a role in entrepreneurship and it was found that it does. The second key objective was to establish whether the current entrepreneurs businesses are operating in similar industries as their primary training. It was found that on average entrepreneurs tend to copy their past experiences, this as mentioned before, can hinder innovation. Another objective was to determine the amount of adult education needed prior to setting up a business, this was found to be between 6-10 years. The final key objective was to establish whether the current profiles of entrepreneurs perceive their education and training a success, this was found to be true.

5.4 Recommendations

- a) It is recommended that entrepreneurship education be taught at all schools (both primary and secondary) to provide a better foundation for school leaving entrepreneurs. The education and skills taught must be adequate such that a person completing matric must be able to start an SMME from scratch. It also means that prospective entrepreneurs must be identified early in secondary schools and nurtured from there on. This nurturing must include technical or trade skills.
- b) It is also recommended that future research be undertaken to find ways to reduce the 6-10 years of incubation that are needed post school in order to gain the necessary confidence levels to start businesses. This study should include ways of identifying prospective entrepreneurs early in their careers and fast tracking their knowledge and experience.
- c) The reasons that current entrepreneurs are not comfortable operating in industries that are out of their primary experience needs further investigation as this could provide information about the quality of adult education and its application to unrelated industries.
- d) The issue of the access to finance needs some investigation as the findings of this study does not correlate with that of GEM (2006).
- e) Although 2 programmes were covered in this study, more research needs to be done into the content of adult educational courses and whether they were found to be relevant.

Bibliography

Aczel, A.D. 1989. Complete business statistics, R.R. Donnelley & sons Company, Boston.

Aldrich, H. 1999. Organizations Evolving, Sage, London,

Aldrich, H., Fiol, M. 1994. Fools rush in? The institutional context of industry creation. Academy of management review, Vol, 19(4),pp 645-670.

Aldrich, H., Wiedenmayer, G. 1993. From traits to rates: An ecological perspective of organisational foundings, Advances in Entrepreneurship, Firm Emergence and Growth, Vol,1, pp 145-195.

Amit, R., Brander, J., Zott, C. 1998. Why do venture capital firms exist? Theory and Canadian evidence. Journal of Business Venturing, Vol, 13(6), pp 441-466.

Audretsch, D.B., Keilbach, M. 2007. The Theory of Knowledge Spillover Entrepreneurship. Journal of Management Studies, Vol, 44(7), pp 1242-1254.

Bailey, K. D. 1982. Methods of Social Research. The Free Press, New York.

Bandura, A. 1997. Self-efficacy: The Exercise of Self Control. W.H. Freedman, New York.

Baron, R., Markham, G. 1999. The role of entrepreneurs' behaviour in their financial success: Evidence for the benefits of effective social skills, paper presented at the Babson conference on Entrepreneurship, Babson Park, MA, US.

Barrick, M., Mount, M. 1991. The Big Five Personality Dimensions and Job Performance: A meta-analysis. Personnel Psychology, Vol, 1, pp 1-26.

Begley, T., Boyd, D. 1987. A Comparison of Entrepreneurs and Managers of Small Business Firms. The Journal of Management, Vol 13, pp 99-108.

Blau, D. 1987. A Time Series Analysis of Self-Employment in the United States. Journal of Political Economy, Vol, 95, pp 445-467.

Blumberg, B., Cooper, D., Schindler, P. 2011. Business Research Methods. McGraw Hill. Berkshire.

Busenitz, L. 1999. Entrepreneurial Risk and Strategic Decision Making. Journal of Applied Behavioural Science, Vol, 35(3), pp 325-340.

Butler, J., Herring, C. 1991. Ethnicity and Entrepreneurship in America: Toward and Explanation of Racial and Ethnic Group Variations in Self-Employment, Sociological

Perspectives, Vol 34(1), pp 79-95.

Caird, S. 1991. The Enterprising Tendency of Occupational Groups, *International Small Business Journal*, Vol 9, pp 75-81.

Campbell, C. 1992. A Decision Theory Model for Entrepreneurial Acts, *Entrepreneurship Theory and Practice*, Vol, 17(1), pp 21-27.

Casson, M. 1995. *Entrepreneurship and Business Culture*, Edward Elgar, Brookfield.

Clouse, V. 1990. A Controlled Experiment Relating Entrepreneurial Education to Students' start-up decisions. *Journal of Small Business Management*, Vol, 28(2), pp 45-53.

Cohen, W., Levinthal, D. 1990. Absorptive capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, Vol, 35(1), pp 128-153.

Cromie, S., O'Donoghue, J. 1992. Assessing Entrepreneurial Inclinations. *International Small Business Journal*, Vol, 10, pp 66-73.

Cromie, S. 1987. Motivations of Aspiring Male and Female Entrepreneurs. *Journal of Organizational Behaviour*, Vol 4, pp 251-261.

Dane, F. C. 1990. *Research Methods*. Brooks/Cole Publishing Company, California.

Dolton, P., Makepeace, G. 1990. Self- Employment Among Graduates. *Bulletin of Economic Research*, Vol 42(1), pp 35-53.

Florin, J., Karri, R., Rossiter, N. 2007. Fostering Entrepreneurial Drive in Business Education: An Attitudinal Approach. *Journal of Management Education*, Vol 31, No1, pp 17-42.

Gaglio, C., Katz, J. (2001). The Psychological Basis of Opportunity Identification: Entrepreneurial alertness. *Small Business Economics*, Vol 16, pp 95-111.

Gentry, R., Hubbard, R. 2000. Tax Policy and Entrepreneurial Entry, *American Economic Review Papers and Proceedings*, Vol, 90 (2), pp 283 – 292.

Gifford, S. 1992. Allocation of Entrepreneurial Attention. *Journal of Economic Behaviour and Organization*, Vol, 19, pp 265-284.

Harper, D. (1996). *Entrepreneurship and the Market Process*, Routledge, London.

Harper, D. 1997. *Institutional Conditions for Entrepreneurship*, working paper, New York University, New York, US.

- Hayek, F. 1945. The Use of Knowledge in Society. *The American Economic Review*, Vol,35(4), pp 519-530.
- Herbet, R., Link, A. 1988. *The Entrepreneur: Mainstream Views and Radical Critiques*. Praeger, New York, US.
- Hills, G., Shrader, R., Lumpkin, T. 1999. Opportunity Recognition as a Creative Process. *Frontiers of Entrepreneurship Research*, pp 30-43, Babson Park, US: Babson College.
- Hills, G., Shrader, R. 1998. Successful Entrepreneurs' Insights into Opportunity Recognition. *Frontiers of Entrepreneurship Research*, pp 1-45, Babson Park, US: Babson College.
- Hines, G. 1973. Achievement Motivation, Occupations and Labour Turnover in New Zealand. *Journal of Applied Psychology*, Vol 58(3), pp 313-317.
- Jackson, J., Rodney, G. 1994. The Attitudinal Climate for Entrepreneurial Activity, *Public opinion quarterly*, Vol, 58, pp 358-380.
- Johnson, B. 1989. *New and Small Venture Performance: The interactive effects of entrepreneurial growth propensity, strategic management practices and industry growth*, PhD Dissertation, St Louis University, US.
- Johnson, P. 1986. *New Firms: An Economic Perspective*, Allen and Unwin, London
- Kelly, D., 1988. *Organizational transformation and the failure of the US airline industry, 1962-1985*, Ph. D Dissertation, North-western UniversityUS.
- Kirzner, I. 1997. Entrepreneurial discovery and the competitive market process: An Austrian approach. *The Journal of Economic Literature*, Vol 35, pp 60-85.
- Klepper, S., Sleeper, S. 2001. Entry by spinoffs, working paper, Carnegie Mellon University, US.
- Kor, Y.Y., Mahoney, J.T., Michael, S.C. 2007. Resources, Capabilities and Entrepreneurial Perceptions. *Journal of Management Studies*, Vol, 44(7), pp 1186-1205.
- Liebecap, G. 1993. Entrepreneurship, property rights and economic development. *Advances in the study of Entrepreneurship, Innovation and Economic Growth*, Vol,6, pp 67-83.
- McMillan, J., Woodruff, C. 2002. The central role of entrepreneurs in transition economies. *Journal of Economic Perspectives*, Vol, 16(3), pp153-170.
- Pallant, J. 2007. *SPSS Survival Manual*, 3rd edition, Mc Graw Hill, New York.
- Patton, M. Q. 2002. *Qualitative Research and Evaluation Methods*. Sage, California.

Phan, P.H., Venkataraman, S., Velamuri, S.R. 2008. Cheltenham UK: Edward Elgar publishing company.

Pretorius, M. Shaw, G. 2004. Business Plans in Bank Decision Making when Financing New Ventures in South Africa. *South African Journal of Economics and Management Sciences*, Vol, 7(2), pp 221-242.

Romanelli, E., Schoonhoven, K. 2001. The local origins of new firms, in K. Schoonhoven and E. Romanelli (eds). *The Entrepreneurial Dynamic*, Stanford, Stanford University Press, pp 40-67.

Rotter, J.B. 1966. Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, Vol 80(1).

Sarasvathy, D., Simon, H., Lave, L. 1998. Perceiving and managing business risks: Differences between entrepreneurs and bankers. *Journal of Economic Behaviour and Organization*, Vol 33, pp 207-225.

Saunders, M., Lewis, P. and Thornhill, A. 2009. *Research Methods for Business Students*. Prentice Hall, Essex.

Schiller, B., Crewson, P. 1997. Entrepreneurial origins: A longitudinal inquiry. *Economic Inquiry*, Vol 35, pp 523-531.

Shane, S. 2004. *A General Theory of Entrepreneurship the individual opportunity nexus.*: Edward Elgar publishing company, Cheltenham.

Shane, S. 2000. Prior knowledge and the discovery of entrepreneurial opportunities, *Organization Science*, Vol, 11(4), pp 448-469.

Shane, S., Khurana, R. 2001. Career experiences and firm foundings. Paper presented at the Academy of Management Meetings.

Shepherd, D., Douglas, E., Shanley, M. 2000. New venture survival: Ignorance, external shocks and risk reduction strategies. *Journal of Business Venturing*, Vol, 15. Pp 393-410.

Stewart, W., Roth, P. 2001. Risk taking propensity differences between entrepreneurs and managers: A meta-analytic review. *Journal of Applied Psychology*, Vol, 86(1), pp 145-153.

Stewart, W., Watson, W., Carland, J., Carland, J. 1999. A proclivity for entrepreneurship: A comparison of entrepreneurs, small business owners and corporate managers. *Journal of Business Venturing*, Vol, 4(2), pp 189-214.

Storey, D., Tether, B. 1998. New technology based firms in the European Union: An introduction, *Research Policy*, Vol, 26, pp 933-946.

Taylor, M. 2001. Self-employment and windfall gains in Britain. Evidence from panel data. *Economica*, Vol, 68, pp 539-565.

The Consortium for Entrepreneurship Education (2010). www.entre-ed.org.

Urban, B., van Vuuren, J., Barreira, J.D. 2008. High Growth Entrepreneurs: The Relevance of Business Knowledge and Work Experience on Venture Success. *Journal of Contemporary Management*, Vol 5, 58-71.

Van Praag, C., Cramer, J. 2001. The roots of entrepreneurship and labour demand. Individual ability and low risk aversion. *Economica*, Vol, 68 No.269, pp 45-62.

Venkataraman, S. 1997. The distinctive domain of entrepreneurship research: An editor's perspective, in J. Katz and R. Brockhaus (eds). *Advances in Entrepreneurship, Firm Emergence and Growth*, Vol 3, pp 119-138.

Wooten, K., Timmerman, T., Folger, R. 1999. The use of personality and the five factor model to predict new business ventures, from outplacement to start-up. *Journal of Vocational Behaviour*, Vol, 54, pp 82-101.

Wu, S. 1989. *Production, Entrepreneurship and Profit*, Basil Blackwell, Cambridge, MA, US.

Yu, T. 2001. Entrepreneurial alertness and discovery. *The review of Austrian economics*, Vol, 14, No.1, pp 47-63.

Appendix 1:

UNIVERSITY OF KWAZULU-NATAL GRADUATE SCHOOL OF BUSINESS

Dear Respondent,

MBA Research Project

Researcher: Quentin Naidoo (+27 84 6800 458)

Email address: **quentin_aidoo@yahoo.com**

quentin.aidoo@tantalitesa.co.za

Supervisor: **mwbozas@mweb.co.za**

I am Quentin Naidoo an MBA student, at the Graduate School of Business, of the University of Kwazulu Natal. You are invited to participate in a research project entitled:

Evaluating the Effectiveness of Adult Entrepreneurial Education in building the South African Economy

The aim of this study is to:

- a) Measure and evaluate to what extent post school training and education leads to the creation and management of SMMEs
- b) Identify any gaps that might exist in post school training and education in the creation and management of SMMEs
- c) Identify if certain industries have lower barriers to entry than others
- d) Determine the link, if any, between personality types, prior employment, family, the role of government and the creation of SMMEs

Through your participation I hope to understand whether post school training and education leads to the creation and management of SMMEs. The results of the survey are intended to contribute to the development of post school programmes that focus on entrepreneurship as a core subject of the curriculum or training.

Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. Confidentiality and anonymity of records identifying you as a participant will be maintained by the Graduate School of Business, UKZN.

If you have any questions or concerns about completing the questionnaire or about participating in this study, you may contact me or my supervisor, the details are listed above.

The survey should take you about 15- 20 minutes to complete. I hope you will take the time to complete this survey.

Sincerely

Investigator's signature _____ Date _____

CONSENT

I.....(full names of participant)
hereby confirm that I understand the contents of this document and the nature of the research project,
and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

SIGNATURE OF PARTICIPANT

DATE

.....

NOTE:

Potential subjects should be given time to read, understand and question the information given before giving consent. This should include time out of the presence of the investigator and time to consult friends and/or family.

Appendix 2:

UNIVERSITY OF KWAZULU-NATAL GRADUATE SCHOOL OF BUSINESS

MBA Research Project

Researcher: Quentin Naidoo (+27 84 6800 458)

Email address: **quentin_naidoo@yahoo.com**

quentin.aidoo@tantalitesa.co.za

Supervisor: **mwbozas@mweb.co.za**

Title of Survey

Evaluating the Effectiveness of Post School Training and Education in building the South African Economy

The purpose of this survey is to solicit information from owners of SMMEs and failed SMMEs with regards to post school training and education programmes regarding entrepreneurship. The information and ratings you provide will go a long way in helping me to identify the critical success factors in terms of building the economy. The questionnaire should take 15-20 minutes to complete. In this questionnaire, you are asked to indicate what is true for you, so there are no “right” or “wrong” answers to any question. Work as rapidly as you can. Make sure not to skip any questions. Please email the questionnaire to the address above. Thank you for participating!

Background Information (Cross where applicable)

1. a) Indicate the age group that you fall into?

1	2	3	4	5	6
18-24 years	25-34 years	35-39 years	40- 49 years	50-59 years	>= 60 years

b) Are you _____male _____ female?

1	2
Male	Female

2. How many years of formal education do you have beyond secondary/high school?

1	2	3	4	5
0 years	1-2 years	3-4 years	5 years	> 5 years

3. What is your highest academic/professional qualification prior to starting your SMME?

1	2	3	4	5	6	7
Below Matric	Matric	Post Matric cert	Degree	Diploma	Post School / Industry Training	Other - Specify

Specify _____

4. How many years were you employed before starting your own business?

1	2	3	4	5	6
Nil	1-2 years	3-5 years	6-10 years	11-15 years	> 16 years

5. Please indicate the industry that you operate in

1	Accounting
2	Administration
3	Finance
4	Human Resource Management
5	Marketing
6	Operations
7	Production
8	Logistics and Transport
9	Construction

10	Security
11	Hospitality
12	Tourism
13	Recreation
14	Other- please specify

Questionnaire:

6. To what extent does the Desire for Independence influence entrepreneurship?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

7. To what extent does the Need for Achievement influence entrepreneurship?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

8. To what extent does Self Confidence influence entrepreneurship?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

9. To what extent is your entrepreneurship aligned / related to in the same industry as your primary business experience?

1 Not Related	2	3	4	5	6	7	8	9	10 The Same

10. Did you start your SMME out of need (eg Retrenchment) or desire?

1 Need	2	3	4	5	6	7	8	9	10 Desire

11. To what extent did family play a role in starting your own business?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

12. Has the growth of your business been higher or lower than that of inflation?

1 Lower than Inflation	2	3	4	5	6	7	8	9	10 Higher than Inflation

13. To what extent is Education important in starting / setting up and managing a business?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

14. To what extent is Age important in starting / setting up and managing a business?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

15. In your own business how certain of success would you be?

1 Uncertain	2	3	4	5	6	7	8	9	10 Certain

16. To what extent are you a successful entrepreneur?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

17. To what extent do you think that its governments responsibility to create employment?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

18. To what extent do you have confidence in your economic future?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

19. To what extent do you have confidence in the future of South Africa?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

20. How inclined are you to emigrate?

1 Least Likely	2	3	4	5	6	7	8	9	10 Most Likely

21. To what extent do you believe that the education system fosters entrepreneurship?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

22. Where did you receive your post school entrepreneurial training:

1	2	3	4	5	6	7
Family	Further Education College	Private College	Company Specific Training	Technikon	University	Other - Specify

Specify _____

23. How important is lost chances elsewhere (the attraction of the corporate world) a determining factor in starting / setting up and managing a business?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

24. To what extent did access to finance delay you in establishing your SMME?

1 Not at all	2	3	4	5	6	7	8	9	10 Considerably

End of the Questionnaire

APPENDIX 3: RAW DATA

	Age Group	Sex	No of yrs formal education beyond High school	highest qualification prior to starting SMME	No of yrs employed prior to starting SMME	Industry operating in	To what extent does Desire for Independence influence entrepreneurship	To what extent does Need for achievement influence entrepreneurship	To what extent does Self Confidence influence entrepreneurship	To what extent is entrepreneurship aligned with primary business experience	Did you start your business out of need or desire	To what extent does family play a role in starting your own business	Has the growth of your business been higher or lower than inflation	To what extent is education important in starting/ setting up and managing a business	To what extent is Age important in starting/ setting up and managing a business	In your own business how certain of success would you be	To what extent are you a successful entrepreneur	To what extent is it governments' responsibility to create employment	To what extent do you have confidence in your economic future	To what extent do you have confidence in the future of SA	How inclined are you to emigrate	To what extent do you believe that the education system fosters entrepreneurship	Where did you receive your post school entrepreneurial training	How important is lost chances elsewhere a determining factor in starting a business	To what extent did access to finance delay you in establishing your SMME
Question No	1a	1b	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Respondent # 1	3	1	4	5	6	14	4	4	4	1	4	10	1	9	4	2	3	1	3	8	7	6	6	8	9
# 2	4	1	4	4	2	14	10	10	10	10	10	7	7	7	6	10	8	5	8	8	1	7	1	6	5
# 3	3	1	3	3	5	11	6	8	6	4	4	8	6	7	6	6	5	4	4	5	4	4	3	4	2
# 4	2	1	3	5	4	9	10	10	10	5	8	10	7	7	8	8	7	10	6	8	6	1	5	10	10
# 5	4	1	2	2	6	11	9	9	9	9	9	8	2	7	6	5	5	8	5	6	6	8	4	8	8
# 6	4	1	5	5	6	9	6	8	10	9	10	10	10	10	10	10	10	10	10	10	2	4	6	9	10
# 7	1	1	2	3	3	7	8	9	10	6	6	10	6	8	1	9	8	9	9	7	5	7	2	7	7
# 8	3	2	3	4	3	9	10	10	5	1	6	1	6	10	3	3	5	2	7	6	6	7	1	1	1
# 9	3	1	1	1	5	14	6	8	10	10	10	10	10	6	1	4	5	6	5	6	4	7	1	5	8
# 10	2	1	1	1	3	11	10	10	10	10	10	10	6	10	1	10	10	10	10	10	1	1	7	6	10
# 11	4	1	4	5	6	14	10	10	7	7	10	3	8	8	8	6	8	3	6	5	3	1	5	7	1
# 12	6	1	3	5	6	7	8	8	8	8	4	3	8	9	5	8	7	4	8	9	2	6	4	5	3
# 13	2	1	2	2	4	11	10	10	10	1	10	1	7	5	1	10	10	5	10	7	4	5	7	5	1
# 14	4	1	2	2	6	14	7	8	10	9	9	6	6	9	5	7	7	7	8	8	3	5	5	7	9
# 15	4	1	2	3	5	14	10	10	10	2	10	1	6	7	1	8	7	6	7	8	1	2	3	4	5
# 16	4	1	1	2	2	11	7	7	8	6	7	9	6	7	3	8	8	10	7	6	8	5	1	6	8
# 17	4	1	3	5	4	9	6	7	8	8	10	10	4	10	7	8	7	10	8	10	1	10	5	5	4
# 18	6	2	3	4	6	14	10	10	10	5	10	10	10	5	6	10	10	4	10	5	3	1	4	6	6
# 19	2	1	2	2	1	8	4	3	6	3	7	10	2	1	4	10	8	9	5	7	3	5	4	6	5
# 20	2	1	2	5	4	14	1	1	10	1	10	10	10	10	10	10	10	10	10	10	1	10	5	10	10
# 21	4	2	2	2	6	14	6	6	10	6	10	10	6	10	7	9	9	6	8	5	7	7	2	6	8
# 22	2	1	1	2	5	7	5	7	10	5	10	10	5	5	1	10	10	7	7	5	1	1	7	5	5
# 23	1	2	5	4	1	14	5	5	10	1	10	10	5	5	1	10	10	1	10	5	2	1	1	5	1
# 24	4	2	5	2	5	7	9	9	7	8	6	6	7	7	8	8	7	6	8	2	9	2	7	7	4
# 25	3	1	1	2	1	5	6	5	7	6	10	10	5	10	1	10	10	6	5	5	4	1	1	5	1
# 26	4	1	5	3	2	9	8	8	8	8	10	1	10	10	10	10	10	10	10	10	1	10	1	10	10
# 27	4	1	3	1	3	7	6	6	6	6	6	1	8	10	8	8	8	8	8	6	1	5	4	6	6
# 28	3	1	3	2	5	14	7	5	5	6	3	10	1	10	10	10	10	1	10	10	1	10	1	10	10
# 29	6	1	5	1	6	14	6	6	10	2	7	10	5	10	7	7	7	7	5	5	10	7	1	5	10
# 30	4	1	3	5	3	8	2	8	8	1	3	1	1	5	5	8	8	10	10	10	1	10	5	6	6
# 31	4	1	5	4	1	14	7	10	10	1	10	1	10	10	4	10	10	10	7	7	7	6	6	6	1
# 32	5	1	3	5	6	14	10	10	10	4	6	3	5	8	7	6	9	5	8	7	2	3	5	7	2
# 33	2	1	3	3	3	8	9	9	7	2	8	1	5	7	4	7	6	5	9	7	3	1	7	6	8
# 34	2	1	3	5	2	14	7	8	9	9	10	10	3	10	5	7	8	10	7	9	3	8	7	5	5
# 35	5	1	2	5	4	5	6	9	8	7	9	9	4	10	7	7	9	8	9	8	1	10	2	9	8
# 36	6	1	2	1	6	7	7	8	8	9	8	7	9	9	8	9	8	10	9	7	8	9	4	8	9
# 37	4	1	1	2	5	7	5	10	10	9	1	10	1	10	10	7	7	1	10	10	1	8	1	7	10
# 38	5	1	3	2	6	7	5	5	8	5	1	10	10	10	4	10	6	10	7	5	1	10	4	7	1

# 39	5	1	2	3	6	1	8	10	8	10	10	4	10	10	10	8	8	10	10	8	5	10	4	7	10
# 40	5	1	3	5	4	7	9	10	10	9	10	10	8	9	8	9	10	10	8	7	5	7	4	7	10
# 41	4	1	5	7	6	6	10	8	10	9	10	7	8	8	7	8	8	1	10	8	1	7	6	7	10
# 42	2	1	2	5	4	14	7	9	8	10	10	6	8	10	2	9	7	7	8	10	2	10	4	8	4
# 43	4	1	1	1	4	8	8	9	8	7	7	9	6	6	4	6	6	5	6	6	7	8	1	7	7
# 44	2	1	2	3	3	14	9	10	6	1	6	1	4	8	4	8	5	7	10	10	1	1	5	1	10
# 45	3	1	3	5	5	9	10	10	10	10	10	10	10	6	8	10	10	3	10	10	1	4	5	1	1
# 46	4	1	1	3	3	14	10	9	10	2	10	1	7	6	8	4	8	7	5	2	10	3	7	8	2
# 47	6	1	1	2	4	5	7	7	7	8	8	2	8	5	5	7	8	7	6	7	3	4	1	6	7
# 48	3	2	2	5	3	14	10	10	10	10	10	10	5	10	10	8	8	10	5	5	5	5	5	8	8
# 49	3	2	5	5	4	14	7	8	8	10	10	6	1	10	8	10	8	5	5	6	1	1	3	10	7
# 50	3	1	4	2	4	14	8	8	10	8	10	10	5	10	1	10	8	10	10	5	5	4	4	2	5
# 51	4	1	3	5	5	9	10	10	6	6	5	10	10	4	10	8	9	1	7	7	6	10	1	5	8
# 52	2	1	1	2	1	14	1	6	10	5	2	10	9	10	10	7	7	10	1	10	1	10	1	6	1
# 53	2	1	5	5	4	2	9	9	10	8	10	7	4	10	1	8	7	10	6	10	1	10	6	2	5
# 54	2	1	1	5	2	9	5	5	10	6	1	10	8	4	4	10	6	10	10	9	10	6	7	7	9
# 55	4	1	3	4	4	14	8	8	9	8	7	8	7	8	7	7	8	7	7	8	2	7	6	6	7
# 56	4	1	1	2	4	8	7	8	8	6	7	3	6	8	3	7	8	9	7	7	1	6	4	6	8
# 57	1	2	3	5	2	1	7	8	10	6	10	10	8	10	6	6	8	1	9	6	10	10	2	9	3
# 58	2	1	5	7	4	6	7	9	10	10	10	7	7	10	10	10	10	10	10	10	6	10	6	9	10
# 59	4	1	4	4	4	7	7	9	10	10	10	5	9	1	9	3	7	5	7	9	2	2	1	4	8
# 60	2	1	5	4	3	11	10	10	10	8	9	7	6	8	7	7	8	5	7	4	9	4	7	4	9
# 61	2	1	1	2	3	10	7	5	7	4	6	7	5	3	3	7	7	8	6	6	6	6	1	8	4
# 62	3	1	2	5	4	14	4	4	10	10	10	10	5	10	1	10	5	10	5	5	1	1	5	5	10
# 63	3	1	5	5	4	4	8	10	10	4	10	10	5	10	6	8	7	10	10	10	2	3	5	7	10
# 64	6	1	3	5	6	14	5	10	5	1	10	3	7	1	1	8	8	4	9	9	1	3	7	3	4
# 65	2	1	1	2	3	14	9	9	9	9	10	9	10	5	1	10	10	5	10	10	1	7	7	5	1
# 66	3	1	3	4	4	5	9	8	8	10	8	1	7	10	10	9	9	5	8	7	2	6	6	6	6
# 67	1	2	1	2	3	8	9	10	10	10	10	9	6	10	2	7	8	4	9	9	1	10	7	5	1
# 68	3	1	2	6	4	11	10	10	10	1	10	10	7	7	1	10	10	4	5	8	5	10	7	7	8
# 69	2	1	3	4	4	11	10	10	10	10	8	10	6	10	10	10	7	7	8	7	10	10	6	10	5
# 70	2	1	3	6	4	8	7	7	9	10	6	7	7	10	1	7	7	4	6	7	7	1	4	7	5
# 71	5	2	2	2	5	14	10	10	8	1	10	1	6	6	10	10	10	5	8	8	1	7	3	4	1
# 72	3	2	5	5	5	14	10	7	10	1	10	5	5	8	1	10	10	7	7	7	6	5	4	1	10
# 73	2	2	2	2	3	14	9	9	10	8	8	10	5	8	5	10	9	9	8	6	8	7	2	7	8
# 74	2	1	2	2	4	8	9	9	9	3	9	10	10	10	1	10	10	10	9	9	7	8	2	7	3
# 75	5	1	5	4	6	11	6	6	6	1	1	1	5	7	5	8	8	4	8	7	1	7	6	10	1

RESEARCH OFFICE (GOVAN MBEKI CENTRE)
WESTVILLE CAMPUS
TELEPHONE NO.: 031 – 2603587
EMAIL : ximbap@ukzn.ac.za

23 JUNE 2009

MR. Q NAIDOO (203518089)
GRADUATE SCHOOL OF BUSINESS

Dear Mr. Naidoo

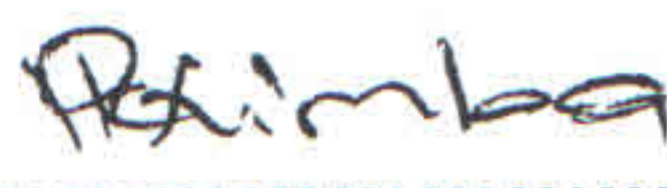
ETHICAL CLEARANCE APPROVAL NUMBER: HSS/0286/09M

I wish to confirm that ethical clearance has been granted for the following project:

"Evaluating the effectiveness of Adult Entrepreneurial Education in building the South African Economy"

PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years

Yours faithfully


.....
MS. PHUMELELE XIMBA
ADMINISTRATOR
HUMANITIES & SOCIAL SCIENCES ETHICS COMMITTEE

cc. Supervisor (Mr. M Challenor)
cc. Mrs. C Haddon

