

UNIVERSITY OF KWAZULU-NATAL

**FACTORS INFLUENCING THE DEVELOPMENT OF
PRODUCTIVE ENTREPRENEURIAL BEHAVIOUR
AMONG UNIVERSITY STUDENTS**

BY

Mzwanele Mbonisi Memani

212558170

**A dissertation submitted in fulfilment of the requirements for the degree
of
Master of Commerce**

**School of Management, IT and Governance
College of Law and Management Studies**

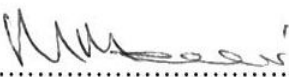
Supervisor: Dr Ziska Fields

2013

DECLARATION

I, the undersigned, Mzwanele Mbonisi Memani, hereby declare that

- (i) The research report in this dissertation, except where otherwise is indicated, is my original research.
- (ii) This dissertation has not been submitted for any degree or qualification at any other university.
- (iii) This dissertation does not contain other person's data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- (iv) This dissertation does not contain other person's 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) Where I have reproduced a publication where I am author, co-author or editor, I have indicated in detail which part of the publication was actually written by myself alone and have fully referenced such publications.
- (vi) This dissertation does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and the source being detailed in the dissertation and in the References sections.



.....

M.M. Memani

12th February 2014

ACKNOWLEDGEMENTS

I wish to express my sincere appreciation to my supervisor, Dr Ziska Fields, for her expert advice, guidance and motivation. A special thanks to my statistician, Quinex Chiluwe, for assisting me with data analysis. Thanks also to all the University of KwaZulu-Natal (UKZN) students who agreed to take part in the research.

Most of all thank you to my wife, Pulane, and my two daughters, Yolisa and Shana, for their love and giving me the time to complete this dissertation.

Above all, I am grateful to God for the strength and wisdom He gave me to do this work.

ABSTRACT

South Africa experiences high levels of unemployment and poverty with an official unemployment rate at around 25%. In order to solve this malaise, entrepreneurship has played a very important role to job creation, poverty reduction and creation of sustainable communities. Literature review indicates that most developed and developing countries have embarked on strategies that develop new businesses which are innovative and present growth prospects. The emphasis is on innovative activities that benefit the entire society and these fall under productive entrepreneurship. The other types of entrepreneurship are unproductive and destructive; and these refer to activities such as crime and rent-seeking as they only benefit the entrepreneur but harm the society.

Literature review suggests that the tertiary institutions play an important role in stimulating innovation and growth of new ventures. The university students are perceived to be more instrumental in starting these innovative ventures than their unskilled or less educated individuals. Other than the exposure they get at their tertiary institutions, university students can also be exposed to productive entrepreneurship from their family and community environments. Against this background, the objective of this research was to investigate the factors that influence the development of productive entrepreneurial behaviour among university students.

The respondents were identified by means of convenience sampling and in total 350 questionnaires were completed by the students at the University of KwaZulu-Natal's Pietermaritzburg, Howard and Westville campuses. Given that the purpose of the study was not to generalise about the student population, only descriptive statistical analyses was used. The results of this research show that students consider entrepreneurship to be very important to the stimulation of economic growth leading to job creation and poverty reduction. Students had positive attitudes towards entrepreneurship as they perceived that it was more beneficial to start an own business and determine own salary rather than become an employee with job security.

However, students were not likely to start a business immediately after graduation, given limited understanding and knowledge of running a business. More students admitted that their parents did not own a business and had never worked in a small business. Despite this lack of exposure within their family and community backgrounds, a significant number of respondents were exposed to entrepreneurship by the education system. The respondents highlighted that the tertiary institutions, in particular, had a major role to play in cultivating the entrepreneurial spirit among university students. Given that parties such as government, universities and the private sector tend to work independent of each other, and thereby lessening their impact; the results suggest that these parties need to work together to design initiatives that would have a greater impact for potential graduate entrepreneurs.

Key words: Unemployment, productive entrepreneurship, tertiary institutions, productive entrepreneurial behaviour

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENTS	iii
ABSTRACT	iv
LIST OF FIGURES	ix
LIST OF TABLES	x
LIST OF APPENDICES	xi
LIST OF ABBREVIATIONS	xii
CHAPTER 1	
INTRODUCTION	1
1.1 Introduction	1
1.2 Background.....	2
1.3 Problem statement.....	3
1.4 Research objectives.....	4
1.4.1 Primary objective	4
1.4.2 Secondary objectives.....	4
1.5 Research methodology	4
1.5.1 Literature review	4
1.5.2 Empirical study	5
1.6 Limitations of study	5
1.7 Significance of study.....	6
1.8 Outline of chapters	6
1.8.1 Chapter 1: Introduction	6
1.8.2 Chapter 2: Literature review	7
1.8.3 Chapter 3: Research methodology	7
1.8.4 Chapter 4: Data analysis.....	7
1.8.5 Chapter 5: Research findings and discussion	7
1.8.6 Chapter 6: Conclusion and recommendations	8
1.9 Conclusion.....	8
CHAPTER 2	
LITERATURE REVIEW	9
2.1 Introduction	9
2.2 Definitions of entrepreneurship	9
2.3 The importance of entrepreneurship in the South African economy	12

2.4	The importance of tertiary education to support entrepreneurship development in South Africa.....	15
2.5	The role of tertiary education to develop productive entrepreneurial behaviours among university students	19
2.6	The factors influencing the development of productive entrepreneurial behaviours.....	21
2.6.1	Demographic characteristics and background of students	22
2.6.2	Social factors	24
2.6.3	Environmental factors	24
2.6.4	Education process	25
2.6.5	Government policy.....	26
2.7	Conclusion.....	28

CHAPTER 3

RESEARCH METHODOLOGY..... 29

3.1	Introduction	29
3.2	Problem statement.....	29
3.3	Research philosophy	31
3.3.1	Ontology.....	31
3.3.2	Epistemology	32
3.3.3	Axiology.....	33
3.3.4	Rhetorical structure.....	34
3.3.5	Methodology.....	35
3.4	Research objectives.....	36
3.5	Research design	37
3.6	Sample and sampling methods	39
3.7	Data collection	42
3.8	Data analysis.....	45
3.9	Validity of research.....	46
3.10	Reliability of research	47
3.11	Ethics.....	47
3.12	Conclusion.....	48

CHAPTER 4

DATA ANALYSIS 50

4.1	Introduction	50
4.2	Findings	50
4.2.1	Personal information.....	50
4.2.2	Descriptive analysis	54
4.3	Conclusion.....	60

CHAPTER 5	
RESEARCH FINDINGS AND DISCUSSION.....	62
5.1	Introduction 62
5.2	Findings and discussion 62
5.2.1	Demographic data 62
5.2.2	Descriptive analysis 63
5.3	Conclusion..... 70
CHAPTER 6	
CONCLUSION AND RECOMMENDATIONS	72
6.1	Introduction 72
6.2	Conclusions of the empirical findings and literature review 72
6.2.1	The importance of entrepreneurship in the South African economy 73
6.2.2	Attitudes towards entrepreneurship 73
6.2.3	Likelihood of starting an own business..... 75
6.2.4	Exposure to entrepreneurship 76
6.2.5	The factors influencing the development of productive entrepreneurial behaviours..... 76
6.2.6	Initiatives by government, universities and the private sector 77
6.3	Achievement of the objectives..... 78
6.4	Recommendations 80
6.5	Significance of the findings..... 84
6.6	Limitations of the study..... 84
6.7	Need for further research..... 85
6.8	Summary 86
REFERENCE LIST	88
APPENDIX A: QUESTIONNAIRE	101
APPENDIX B: ETHICAL CLEARANCE	110

LIST OF FIGURES

Figure 1.1: Framework: Linking entrepreneurship to economic growth.....	13
Figure 4.1: Gender of respondents.....	51
Figure 4.2: Place of birth by size of town	53
Figure 4.3: Year of study	54

LIST OF TABLES

Table 3.1: University students	41
Table 4.1: Age of respondents	50
Table 4.2: Race of respondents	51
Table 4.3: Place of birth.....	52
Table 4.4: Importance of entrepreneurship.....	55
Table 4.5: Racial breakdown of respondents whose parents own a business.....	57
Table 4.6: Have you had an opportunity of working in a small business?.....	58
Table 4.7: Have you ever started and run your own business?.....	58
Table 4.8: Do you know any entrepreneurs personally?.....	58

LIST OF APPENDICES

Appendix A:	Questionnaire
Appendix B:	Clearance letter

LIST OF ABBREVIATIONS

BB-BEE	Broad-Based Black Economic Empowerment
FEDCI	Forum for Enterprise Development Centres at Higher Education Institutions
GEM	Global Entrepreneurship Monitor
NGOs	Non-Governmental Organisations
PPPFA	Preferential Procurement Public Finance Act
SPSS	Statistical Package for the Social Sciences
Stats SA	Statistics South Africa
UKZN	University of KwaZulu-Natal

CHAPTER 1

INTRODUCTION

1.1 Introduction

Entrepreneurship is viewed as a vehicle for stimulating the economy, resulting in job creation, poverty reduction and creation of sustainable communities. Governments across the globe have developed policies and strategies that promote the development of new ventures because they believe these ventures make an immense contribution to a country's economy. South Africa is no different from countries that have a vision to develop their economies through promoting the development of new enterprises. Potential entrepreneurs can be exposed to entrepreneurship through influence from their families, communities and the education system.

Family members who own businesses can influence other members who aspire to start a business. Besides a family environment, an individual is also influenced by a community where they live. Entrepreneurs can act as role models for anyone who is inspired to start a business at some point in future. As an individual grows, the period between childhood and young adulthood is spent within the education system. Ultimately the tertiary education plays an important role in the development of analytical thinking processes. In addition, the teaching of entrepreneurship courses assists in the development of positive attitudes and skills towards starting a business. Stokes, Wilson and Mador (2010, p.7) cite Timmons and Spinelli (2003) who defined entrepreneurship as a way of thinking, reasoning and acting that is opportunity based, holistic in approach and leadership balanced.

In order to take the process of thinking and reasoning to an action stage, it is important for the government, universities and the private sector to have a conversation about the appropriate interventions that would propel university students to take risks and start their own businesses. The behaviour of risk taking would eventually get South Africa out of the problem of unemployment and poverty. This chapter introduces a study carried out to

investigate the factors that influence the development of productive entrepreneurial behaviour among university students. This chapter presents the background to the study, the problem statement, the research objectives, the research methodology used, the limitations of the study and the layout of the study.

1.2 Background

This study focused on investigating factors that influence productive entrepreneurial behaviour among university students. The key concepts explored were the importance of entrepreneurship; attitudes towards entrepreneurship; likelihood of starting an own business; exposure to entrepreneurship; other factors influencing the development of productive entrepreneurial behaviours among university students; and the initiatives of government, the private sector and universities to support potential graduate entrepreneurs. The first concept or objective looked at the importance of entrepreneurship in the South African economy as a driver of economic growth, leading to job creation and reduction of unemployment and poverty. Productive entrepreneurship refers to innovative activities that benefit the society as a whole. Unproductive and destructive entrepreneurship refers to activities that benefit only the individuals but are detrimental to the society. These are activities like crime and rent-seeking. It is important for South Africa to encourage productive entrepreneurship because the entire nation would benefit. Therefore, better places that could serve as platforms to encourage productive entrepreneurship were seen as family background, the community and the education system. The attitude towards entrepreneurship and the likelihood to start a business were inspired by exposure to entrepreneurship. The combination of all these factors would result in entrepreneurial behaviours.

The involvement of families, the community and the education in teaching or exposing children, learners and students would result in a productive entrepreneurial society. According to Ajzen (1991, p.179), the intention to embark on a behaviour could be predicted by three independent antecedents, which were the attitude towards the behaviour, subjective norms and perceived behavioural control. In this theory, individuals

need to have a positive attitude to start a business, the attitude would lead to intentions, and the intentions would result into the behaviour. According to Glinskiene and Petuskiene (2011, p.179) the importance of entrepreneurship, which is the main instrument for the stimulation of innovation, is emphasised in many countries striving for the development of their economies. Therefore, South Africa is not exempt from pursuing instruments that have worked elsewhere, given that there is more room for the economy to grow, create jobs and reduce poverty.

The study was premised on the fact that South Africa experiences high levels of unemployment and poverty and yet its citizens seemed shy to the concept of entrepreneurship and its benefits. However, the focus of the study was not the general citizenry but the university students who were perceived as more capable and flexible to seize business opportunities, given their exposure to analytical thinking. The study envisaged that an investigation of the students' thinking regarding entrepreneurship would reveal factors that influence productive entrepreneurial behaviour among university students.

The following section presents the research problem.

1.3 Problem statement

Most South African graduates are becoming unemployed. They join other job seekers in search of job opportunities. In the first quarter of 2013, Statistics SA recorded an unemployment rate of 25.2% as recorded in South Africa (Statistics SA, 2013, p.5). As is often the case, social ills such as poverty and unemployment breed other negative externalities such as crime, disease and death. This problem is linked to lack of productive entrepreneurial training offered to high school learners and university students.

1.4 Research objectives

The research was aimed at achieving the following objectives:

1.4.1 Primary objective

The study focused on investigating factors influencing the development of productive entrepreneurial behaviours among university students. It was envisaged that the results would influence public policy and programmes as well as assist universities to be aware of the importance of teaching productive entrepreneurship courses and appropriate methods of teaching the material.

1.4.2 Secondary objectives

- Determine the awareness and understanding of the importance of entrepreneurship as a vehicle for earning a living;
- Assess the attitudes of students towards starting a business;
- Assess the students' likelihood to consider starting a business after graduation;
- Investigate the levels of exposure of students to entrepreneurship;
- Determine the perceived factors that enhanced or inhibited the development of new business; and
- Explore government initiatives to support potential graduate entrepreneurs.

1.5 Research methodology

The study had two phases which were a literature review and an empirical study.

1.5.1 Literature review

The literature review examined the definition of entrepreneurship, the importance of entrepreneurship in the South African economy, the role of tertiary institutions in

developing productive entrepreneurial behaviour among university students and factors influencing the development of productive entrepreneurial behaviours. The literature review also looked at the role of families, role models and the education system in relation to entrepreneurship development.

1.5.2 Empirical study

The research followed a survey design with quantitative data collected from participants. The research instrument was designed in order to gather perceptions and views of students regarding their understanding of entrepreneurship, their attitudes towards entrepreneurship, their likelihood to start a business, exposure to entrepreneurship, factors influencing the development of productive entrepreneurial behaviours among university students and what they considered as initiatives from government, the private sector and universities to support potential graduate entrepreneurs. The initial questionnaire was piloted to 10 students of the University of KwaZulu-Natal. The feedback was used to revise the initial questionnaire. The final questionnaire was administered to 350 students.

1.6 Limitations of study

The scope of the study was limited to students at the University of KwaZulu-Natal. It was envisaged that one or two other universities would be included in the study, but the process of granting permission was cumbersome as the researcher had time constraints. Limited financial resources also restrained the researcher from conducting the study in other universities. Therefore the process was abandoned. The results do not purport to generalise on behalf of all South African university students.

The second limitation was the lower number of respondents who were White and Coloured. Of the 350 respondents who participated in this study, only 7 were White and 16 were Coloured. The students were requested to participate in the study whilst they sat inside or outside the cafeteria. There were not many White and Coloured students

available at the cafeteria. Some of those who did not want to participate mentioned that they were busy preparing an assignment or a test. This reason was accepted as participants were participating voluntarily. The low numbers could also be attributed to an increase in the number of African students enrolling at the institution in the last few years as per the University records. This information is covered in detail in Chapter 5 under the demographic data section.

The third limitation was the amount of time consumed by requesting students to participate in the study at the Westville campus in particular, given that it proved difficult to get assistance from the Schools were originally targeted to provide support in administering the questionnaires after lectures. This method took longer than anticipated as the researcher kept coming back to the Westville campus in order to reach the target set for the sample size.

1.7 Significance of study

It was envisaged that the study would contribute knowledge and information regarding the positive attitudes of students towards entrepreneurship and challenges of converting these intentions into action. Government, the private sector and universities have a role to play to design appropriate strategies and programmes to support aspiring graduate entrepreneurs.

1.8 Outline of chapters

1.8.1 Chapter 1: Introduction

This chapter introduces the subject of entrepreneurship and gives the background of the study. The problem statement, the research objectives and the research methodology are outlined in this chapter. Furthermore, the chapter covers the limitations of the study and the significance of the study.

1.8.2 Chapter 2: Literature review

This chapter covers the definition of entrepreneurship, the importance of entrepreneurship in the South African economy, the importance of tertiary education to support entrepreneurship development in South Africa, the importance of tertiary education to develop productive entrepreneurial behaviours among university students and the factors influencing the development of productive entrepreneurial behaviours.

1.8.3 Chapter 3: Research methodology

This chapter covers the research methodology applied in the study including the problem statement, research philosophy, research objectives, research design, sample and sampling methods, data collection, data analysis, validity of the research, reliability of research and ethics.

1.8.4 Chapter 4: Data analysis

This chapter presents the analysis of the research including personal information and descriptive analysis. Specific statements analysed include the importance of entrepreneurship, attitudes towards entrepreneurship, likelihood to start an own business, exposure to entrepreneurship, other factors influencing the development of productive entrepreneurial behaviours and initiatives by government, universities and private sector.

1.8.5 Chapter 5: Research findings and discussion

This chapter covers the discussion of research findings including descriptive analysis. Specific statements analysed include the importance of entrepreneurship, attitudes towards entrepreneurship, likelihood to start an own business, exposure to entrepreneurship, other factors influencing the development of productive entrepreneurial behaviours and initiatives by government, universities and private sector.

1.8.6 Chapter 6: Conclusion and recommendations

This chapter covers the conclusions of the empirical study and recommendations. In addition, the chapter includes the achievement of the objectives, the limitations of the study, the significance of the findings and a need for further research.

1.9 Conclusion

Entrepreneurship was seen as crucial for job creation, poverty reduction and the creation of sustainable communities. High levels of unemployment had influenced the carrying out of this study in order to investigate whether university students could be empowered with appropriate entrepreneurship training and other initiatives to start their own businesses at some point after graduation. This chapter outlined the background of the study, the research objectives, the problem statement and methodology. It also included the limitations of the study, significance of the study and the layout of the study. The next chapter focuses on the definitions of entrepreneurship, the importance of entrepreneurship in a country's economy, the importance of tertiary education to support entrepreneurship development, the role of tertiary institutions in developing the productive entrepreneurial behaviours among university students and the factors that influence the development of productive entrepreneurial behaviours.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The importance of entrepreneurship, which is the main instrument for the stimulation of innovation, is emphasised in many countries striving for the development of their economies (Glinskiene and Petuskiene, 2011, p.179). South Africa is not exempt from pursuing instruments that have worked elsewhere, given that there is more room for the economy to grow, create jobs and reduce poverty.

This chapter discusses the definitions of entrepreneurship. It also looks at the importance of entrepreneurship in the South African economy as a driver of economic growth, leading to job creation and reduction of unemployment and poverty. Consequently, the importance of education in supporting the development of entrepreneurship will be discussed. This will culminate in highlighting the critical role played by the tertiary education system in cultivating the intentions, attitudes and behaviours of students towards entrepreneurship. Over and above the education system, other factors that influence the development of entrepreneurship such as role models, awareness of business opportunities, skills of running a business and government support will be discussed. In this regard, entrepreneurship is viewed as a vehicle for stimulating the economic growth of any country, especially if productive entrepreneurship is encouraged by all the institutions of a society at large.

2.2 Definitions of entrepreneurship

Entrepreneurship is one of the concepts in economics that is difficult to provide a precise meaning, given its multiplicity of functions and involvement of various specialists. Some of the specialists include scholars from the disciplines of economics, sociology, psychology, business strategy and organisational behaviour with competing strands and research traditions which further fragment the meaning of entrepreneurship (Peneder,

2009, p.77). Fragmentation hinders the full advance of knowledge, because it creates parts without wholes and disciplines without cores. For example, business strategy and management scholars use behavioural and process perspectives that emphasise how to behave entrepreneurially, whereas economists tend to analyse how the economic system works (Ucbasaran, Westhead and Wright, 2001, p.3, citing Johnston, 1991). In this particular case, economists look at the results of entrepreneurship on whether entrepreneurship enhances the operation of the overall economic system. Depending on which field of study, entrepreneurship can be defined using behavioural, process or outcome dimensions.

Along with this line of thinking, Stokes, Wilson and Mador (2010, p.7) state that because there are many definitions of entrepreneurship, they can be categorised according to three major dimensions of entrepreneurship, and these look at behaviours, processes and outcomes. In the behaviours dimension, the definition of entrepreneurship emphasises the role of entrepreneurs, with specific behaviours which set them apart from others. Stokes *et al.* (2010, p.7) cite Timmons and Spinelli (2003) who defined entrepreneurship as a way of thinking, reasoning and acting that is opportunity based, holistic in approach and leadership balanced. In the process dimension, the emphasis is on the activities that are sometimes perceived as substitute for the entrepreneurship process itself such as the establishment of a new business and the development of a business plan. In the outcomes dimension, the definitions focus on the results of entrepreneurship such as products and services, innovation and new business ventures.

Notwithstanding the multiplicity of entrepreneurship functions, Deakins (1996, p.8) asserts that the term entrepreneur is noticeable only by its absence when considering conventional economic theory. He states that in the neo-classical economic theory, the entrepreneur is seen as an individual who co-ordinates various factors of production, but the vital distinction of this role is only grasped as a non-essential one. Glancey and McQuaid (2000, p.3), citing Baumol (1990), share the same sentiment that much of traditional neoclassical economics contemplated the three key factors of production in economic theory to be land, labour and capital, but this disregarded the role of

entrepreneurs in the economy and in the competitiveness of companies. Even though the neo-classical economic theory disregards the role of entrepreneurs, the fact that an individual co-ordinates various factors of production seems to suggest that there is thinking, reasoning and acting which is opportunity driven and eventually enhancing the operations of the economic system.

In providing a clear context of entrepreneurship, Baumol (1990, p.898) indicates that there are three types of entrepreneurs and these are productive, unproductive and destructive. It is important that countries (including South Africa) should aim to create productive entrepreneurs; if not so the consequences for the nation may be substantial. According to Deakins (1996, p.8), there are French writers who contributed opinions on the role of the entrepreneur, the most important being Cantillon and Say. It appears Cantillon accredited entrepreneurs as an essential class in society, followed by landowners and workers. In the case of Say, the entrepreneur was perceived as an agent of economic change and development.

Schumpeter perceived an entrepreneur as an exceptional person and an innovator (Deakins, 1996, p.10). This view was espoused by Bessant and Tidd (2011, p.4) who pointed out further that innovation could easily be identified in every society. The definition of entrepreneurship can be seen from an array of mission statements, each highlighting how crucial innovation is to customers, shareholders and business growth. These definitions can easily be categorised in terms of the three dimensions of entrepreneurship that focus on behaviours, processes and outcomes. The focus of this study is on the definition propagated by Timmons and Spinelli (2003) that entrepreneurship is about the way of thinking, reasoning and acting which is opportunity driven. This indicates that the starting point should be the intentions to start a business and this will be followed by the process of starting a business, leading to the results of running a business. Hence, the emphasis of the study is to probe whether behaviours as a result of intentions to start a business exist or not and if not whether the intentions and behaviours can be influenced by the education system, role models, parents or friends, the private sector and government.

2.3 The importance of entrepreneurship in the South African economy

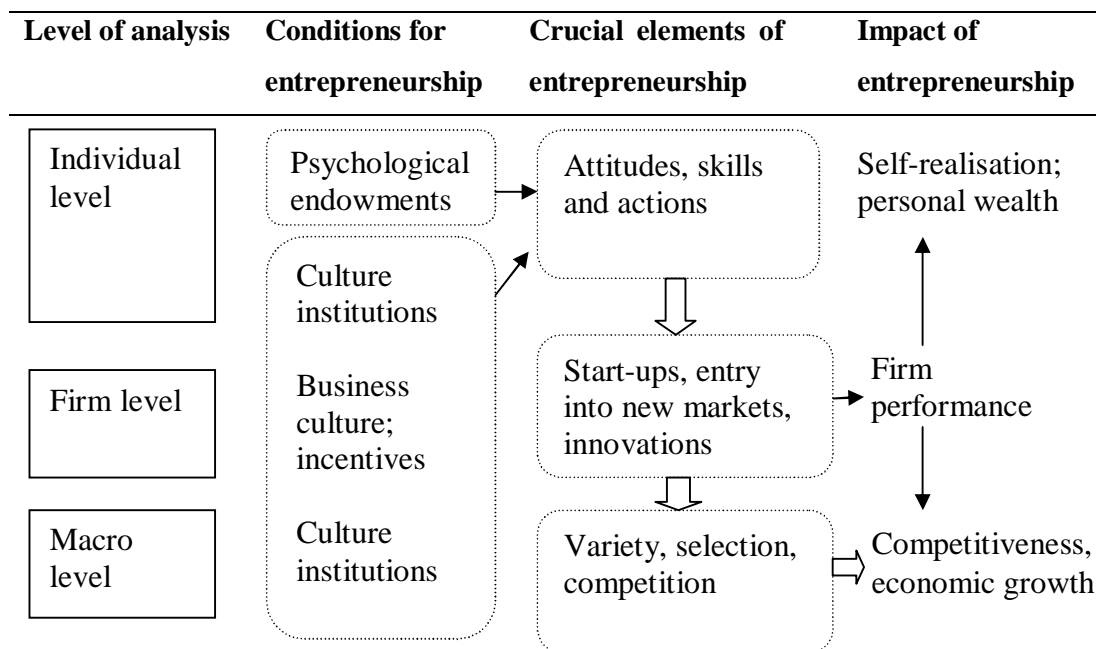
An entrepreneur has always played an important role when considering the behaviour of enterprises and takes on a greater responsibility for the vitality of a free enterprise society. The classical economists have written widely about an entrepreneur, yet without being clearly defined and acknowledged (Baumol, 1968, p.64). Therefore, any innovation that results in higher economic growth rates has its introduction in entrepreneurial insights. The role of the entrepreneur has to be acknowledged in order to fully account for a very substantial proportion of the historic growth (Baumol, 1968, p.66). Holcombe (1998, p.46), citing Kirzner (1973) suggests that entrepreneurial insights are profit opportunities that had previously gone unnoticed. Entrepreneurs act upon these insights and the economy becomes more productive.

Entrepreneurship in economic development is not only about increasing per capita output and income but it is also about introducing change in the structure of business and society (Hisrich, Peters and Shepherd, 2008, p.14). This change is accompanied by growth and increased income, which allows more wealth to be shared by different participants. In the South African context, procurement policies such as the Preferential Procurement Public Finance Act (PPPFA) (Act no. 5 of 2000) (SA, 2000) and Broad-Based Black Economic Empowerment (BB-BEE) (Act no. 53 of 2003) (SA, 2003) were designed to re-dress past imbalances resulting in the achievement of equality (Constitution, Chapter 2, Section 9.2). Hamann (2006, p.180) states that it depends how BB-BEE policies are implemented as some have argued that these policies have created a black elite with little benefit to the poor and others argue that BB-BEE is broad-based and inclusive of issues pertaining to the needs of the poor. This suggests that in the long term, if these policies are implemented efficiently, more previously disadvantaged individuals could benefit, resulting in their incomes and welfare increasing.

Economic growth is considered an “honourable thing” as it brings improved lifestyles and more democracy (Wickham, 2006, p.159). This sentiment is embraced by Van Stel, Carree and Thurik (2005, p318) who state that there is an impact of entrepreneurial

activity on economic growth but it depends on whether a country is rich or poor. On the one hand, Van Stel *et al.* (2005, p.318) argue that entrepreneurial activity has a positive effect for rich countries while it has a negative effect for poorer countries. However, Wennekers and Thurik (1999, p.51) caution that there is no direct link between entrepreneurship and economic growth. Their argument is illustrated by using the following framework:

Figure 1.1: Framework: Linking entrepreneurship to economic growth



Source: Wennekers and Thurik (1999, p.51)

The first element of the framework shows that entrepreneurship must be measured at an individual, firm and macro levels. The second element deals with the determinants of entrepreneurship such as the cultural and institutional conditions that co-determine the amount of entrepreneurship in an economy. Hence, this study seeks to investigate, amongst other things, the role of the education system to influence the decisions of students to start a business. The last element deals with the impact of entrepreneurship on economic development.

Given that this theory advocates that there is no direct link between entrepreneurship and economic growth, it becomes important for a country to incentivise entrepreneurship so that all or most of the determinants of entrepreneurship could be met. The best approach for encouraging self-employment is through a combination of attitudes, skills and action (Wennekers and Thurik, 1999, p.51). Wickham (2006, p.159) argues that self-employment is not the same as entrepreneurship. Acs (2007, p.2) warns that the inclusion of any kind of informal self-employment to the definition of entrepreneurship would lead to one hypothesising that high levels of entrepreneurship would associate with slow economic growth and lagging development. Rogerson (1996, p.179) states that with the enactment of an appropriate support framework, the survivalist segments of the informal economy clearly can contribute to furthering the satisfaction of basic needs, to goals of self-reliance, and to a greater sense of purpose in life and work for participants.

A crucial question is whether regions are rich because entrepreneurs occupy the area or do entrepreneurs arise because a region is rich (Wickham, 2006, p.159). South Africa has become rich because entrepreneurs operate in a variety of economic sectors and have made a huge contribution in transforming the economy of the country (Whitfield, 2012, p.252). Sowmya, Majumdar and Gallant (2010, p.628) agree that without an entrepreneurial attitude societies can stand still, which can hinder the long-term growth and prosperity of a region. The importance of entrepreneurs in any society is vital in growing the economy and prospering its citizens.

Entrepreneurs, in their role as exploiters of unnoticed opportunities, play an important part in the market mechanism and economic growth. An entrepreneurial activity is affected by individual values the same way it is influenced by established institutions and social norms. Therefore, there is a need to modify these institutions so that incentives that channel individuals towards productive entrepreneurship can be changed, resulting in increased economic growth (Baumol and Strom, 2007, p.236). Scheepers, Solomon and de Vries (2009, p.9) embrace this view and state that entrepreneurship is typically associated with innovation, job creation, venture creation, rejuvenation of existing business and accelerating national economic growth. Scheepers *et al.* (2009, p.9) further

assert that the economic growth is interwoven with the size and quality of its entrepreneurs. This may support Baumol's view of the three types of entrepreneurs which are productive, destructive and unproductive. Productive entrepreneurs are the quality that South Africa is looking for as these entrepreneurs benefit society as well as themselves.

Entrepreneurs such as Anton Rupert, Nicky Oppenheimer, Bill Venter and Jeremy Ord play an influential role in the economic vitality of South Africa. Their ventures have created jobs, earned foreign exchange, contributed significantly to the tax base and also served as models for innovation and change (Scheepers *et al.*, 2009, p.9). It is important to highlight them as good role models. Holcombe (1998, p.51) states that when entrepreneurs take advantage of profit opportunities, they create new entrepreneurial opportunities that others can act upon. In a real sense, entrepreneurship leads to an environment where more entrepreneurship is made possible.

According to Herrington, Kew, Simrie and Turton (2011, p.22), early-stage entrepreneurs in South Africa are largely motivated by perceived opportunities rather than necessity. The impact of this scenario is positive, given that opportunities are being exploited and this might result in job creation which is highly needed in South Africa. Fortunately, South Africa has a number of large corporations, which have the potential to outsource goods and services to small enterprises in order to empower these companies to grow and become sustainable. To achieve this vision of empowerment, Sowmya *et al.* (2010, p.627) suggest that new ways of thinking about education to support entrepreneurship for social inclusion are needed.

2.4 The importance of tertiary education to support entrepreneurship development in South Africa

Education places the emphasis of learning on factual information. It goes beyond knowledge acquisition. It is about developing critical thinking skills, the ability to formulate good questions and to know where to find answers (Feinstein, Mann and

Corsun, 2002, p.739). Mentoer and Friedrich (2007, p.222), citing Hytti and Kuopursjarvi (2004) highlight three objectives of enterprise education. The first objective is to increase the understanding of the students of what entrepreneurship is all about. The second objective is about 'equipping individuals for the world of work'. This basically means teaching students how to become entrepreneurial. Students have to be taught how they can take responsibility for their careers and lives. The final objective of enterprise education should be to prepare individuals to act as entrepreneurs and managers. Students therefore should be taught what they should do to become entrepreneurs, to assess whether they can become entrepreneurs and also how to manage a business.

In agreeing with the first objective, Dhliwayo (2008, p.334), citing Driver *et al.* (2001, p.43) and Foxcroft (2002, p.24), states that research studies show that the higher the level of education of an individual, the greater the tendency to pursue entrepreneurial activities and the greater the possibility of starting a venture that progresses past the start-up stage. Hence, the development of entrepreneurship should be driven by the education system in general and tertiary institutions in particular. Co and Mitchell (2006, p.349) agree that universities can help create a more entrepreneurial character among young people by infusing a clear understanding of risks and rewards, teaching opportunity seeking and recognition skills, as well as creation and destruction of enterprises. With respect to the second objective, entrepreneurship education is an important tool to prepare students for the global marketplace and it should be universally available to provide all students with opportunities to explore and fulfil their potential (Bell-Rose and Payzant, 2008, p.25). However, a study conducted by Steenekamp, Van der Merwe and Athayde (2011, p.67) concluded that though the majority of learners saw good opportunities in South Africa to start a business and perceived entrepreneurship as a desirable career choice, only one-third of learners were planning to start a business as soon as they finish school. This suggests that the majority of this group of learners did not explore the opportunities presented by the education programme to start a business. Perhaps, the solution is not just about teaching students to be entrepreneurial, but it is also about assisting them to put the learning into action by starting a business as part of the teaching and learning process.

Universities can contribute to entrepreneurship both indirectly, by way of providing education to candidates, and directly by commercialisation of intellectual property and by being the incubator for new ventures. The flow of candidates comprises an enormous potential and a responsibility for the universities to nurture a more entrepreneurial workforce, and for qualified competence in this area (Rasmussen and Roger, 2006, p.185). It is then expected that these candidates are more likely to start new ventures after completing their studies. Sowmya *et al.* (2010, p.628) and Taatila (2010, p.48) suggest that there is evidence in the literature that academically educated entrepreneurs are more important in developing regional economies than entrepreneurs with a lower level of education.

An assessment of the entrepreneurial inclination of university students in the Delta State (Nigeria) conducted by Chenube, Saidu, Omumu and Omomoyesan recommended that the directive by the government on the teaching of entrepreneurship in all tertiary institutions should be enforced as this would assist graduates to become productive members of the society (Chenube, Saidu, Omumu and Omomoyesan, 2011, p.426). Kroon, De Klerk and Dippenaar (2003, p.319) indicate that in order to develop the next generation of potential entrepreneurs in South Africa, practical orientation and greater vocational relevance to entrepreneurial learning should be introduced. This would encourage people to acquire practical experience through an entrepreneurial learning programme to become entrepreneurial in the entrepreneurship development process.

A caution is that with the objectives, content, structure and pedagogy of entrepreneurship programmes inextricably linked with the issue of effectiveness, the debate surrounding the degree to which entrepreneurship can be successfully taught continues (Henry, Hill and Leitch, 2005, p.162). It is observed that not everyone has what it takes to become an entrepreneur and in any event a society would not want everyone to become an entrepreneur. Notwithstanding this statement, it is argued that there is a major role and need for entrepreneurship education and training (Garavan and O’Cinneide, 1994, p.4). Kuratko (2005, p.480) advocates that entrepreneurship or facets of it can be taught. Citing Drucker (1985) he states that the entrepreneurial mystique is not magic; it is not

mysterious and has nothing to do with the genes, it is a discipline that can be learned (Kuratko, 2005, p.580). Gorman, Hanlon and King (1997, p.71) are of the same opinion that results of their empirical research indicate considerable consensus that entrepreneurship can be taught and the teaching methods can be enhanced through active participation. Even if programmes can be learned, the knowledge gained cannot equip the student to meet the challenges of the entrepreneurial business climate (Kirby, 2004, p.514). A set of personal skills, attributes and behaviour need to be developed in students if their entrepreneurial capabilities are to be enhanced. Katz (2003, p.283) observes that in the United States the number of entrepreneurial courses is growing at a fast pace. Solomon (2007, p.169) claims that the growth of courses has partly been caused by the students and accreditation bodies' dissatisfaction with the *Fortune 500* business education. The dilemma is not that demand is high but that the pedagogy selected meets the innovative and creative mindsets of students.

A different perspective is suggested that the demand for courses comes from three sources (Jack and Anderson, 1999, p.114). The first source of demand is primarily economic and driven by the shift towards a post-Fordist economy, which DiPrete, Goux and Maurin (2002, p.176) describe as the internal flexibility achieved through the flattening of organisational hierarchies; the use of new technologies, and increased reliance on the external market for goods, services, and skills, which are then combined with internal competencies to form products. The second source of demand is that students may plan to start their own businesses and may also want to acquire knowledge in case they are employed by large organisations. The third source of demand is the business sector as it expects graduates to be knowledgeable about commercial issues if the graduates were to seek employment.

Given all the views and perspectives on entrepreneurship and whether according to the Schumpeterian school of thought an entrepreneur is a special person, Fayolle and Klandt (2006, p.21) conclude that enterprising behaviour can be acquired through learning and that it should be taught. Entrepreneurship education requires reflection on the connection between action and theory and between learning and doing. Fayolle and Klandt (2006)

further propose that the universities should deliberate how they could contribute to the stimulation of an enterprising attitude among university students. Sowmya *et al.* (2010, p.626) note that the education system needs to thoroughly prepare students to succeed and assume leadership positions for the new global marketplace. Hence, entrepreneurship education plays an important part to achieving these noble goals. Whilst the discussion that entrepreneurship should be taught continues, it is vital that university students are exposed to entrepreneurship so that thinking, reasoning and opportunity based acting is developed and cherished. It is envisaged that this group of students would emerge with well-developed entrepreneurial productive behaviours and make a meaningful contribution to the South African economy.

2.5 The role of tertiary education to develop productive entrepreneurial behaviours among university students

Productive entrepreneurship encompasses those activities that benefit both the entrepreneur and society at large. The entrepreneur benefits himself or herself by benefiting others. In contrast, unproductive activities include those that benefit the entrepreneur but harm society in general. Examples include crime, rent seeking, and other behaviours that destroy existing resources (Coyne and Leeson, 2004, p.237). Productive entrepreneurship is about constructive and innovative activities whilst unproductive entrepreneurial activities are parasitical and therefore damaging to the economy (Baumol, 1990, p.894).

The economy of a great region is not built on ordinary or tired ideas. Novel ideas come from bright and knowledgeable individuals. The individuals are often in the neighbourhood of their region's great institutions where talent congregates and where ideas are produced (Venkataraman, 2004, p.162). Educational institutions serve as a magnet for the society's brightest youth. If a region does not have access or connection to an educational institution, the desired level of technological entrepreneurship will not be generated. This is the main reason tertiary educational institutions play a significant role in developing productive entrepreneurial behaviours, driven by innovative and

creative ideas (Venkataraman, 2004, p.163). According to Laukkanen (2000, p.33) a university can be conceptualised as a societal innovative subsystem and a fertile environment for creating and fostering new products. However, Kirby (2004, p.510) notes that Johannison (1991, p.71) disagrees that universities have the capability to teach individuals to be enterprising and moreover to become business people.

There have not been many studies that investigate the state of entrepreneurship education in South Africa, except at secondary school level and just a few on methodologies being used by universities to teach entrepreneurship (Co and Mitchell, 2006, p.349). Universities in South Africa have centres for entrepreneurship and or small business management, and training still focuses on the management skills, hence new appropriate approaches to entrepreneurship education need to be adopted (Nieman, 2001, p.447 and Dhliwayo, 2008, p.330). The growing literature on entrepreneurship education tends to argue that a different approach, a departure from the traditional lecture centred, passive learning used in traditional business disciplines such as management and marketing, is needed (Jones and English, 2004, p.416). A warning is that by staying too general, education may not really equip the typical student for meaningful action in any business context (Laukkanen, 2010, p.30). There is a need for a paradigm shift towards an education system that would empower students' way of thinking, reasoning and acting to be opportunity based.

A different approach is needed which encompasses different activities to influence entrepreneurship. Three major features of innovators and entrepreneurs are stated as knowledge, skills and attitude. In most formal education situations, the first feature is treated thoroughly and in an analytical manner; the second receives sketchy attention and is harder to impart than within formal educational systems; the third is hardly addressed at all. Yet this latter topic of attitudes, the psycho-social forces of the individual and the cultural context, is of prime importance in influencing innovative and entrepreneurial behaviour patterns (Garavan and O'Conneide, 1994, p.5). A suggestion is advanced that if entrepreneurship education and training is to be effective, the contention is that it must be so not only through factual knowledge and the limited skills acquirable in the classroom,

but also through the stimulation of new ventures, the success of those ventures and the increasing capacity of the entrepreneur to pursue even greater success (Garavan and O’Cinneide, 1994, p.5).

It is the theory of planned behaviour which explains that attitudes towards behaviour, subjective norms and perceived control over behaviour are usually found to predict behavioural intentions (Ajzen, 1991, p.206). According to Fayolle, Gailly and Lassas-Clerc (2006, p.708), Krueger and Carsrud (1993) were the first to apply the theory of planned behaviour to the field of entrepreneurship by trying to make Ajzen’s (1991) model compatible with other theoretical frameworks. Krueger and Carsrud (1993, p.316) indicate that intentions serve as a mediator or catalyst for action. Krueger, Reilly and Carsrud (2000, p.428) propose that educators should invoke the theory of planned behaviour to better understand their students’ motivations and intentions, and thus provide better training. There is acknowledgement that the tertiary educational institutions have an important role to play in developing productive entrepreneurial behaviours as they teach students skills such as problem solving, enterprising and creativity. The emphasis on productive versus unproductive behaviours is critical as the former contributes positively to economic growth, whereas the latter takes any country backwards.

2.6 The factors influencing the development of productive entrepreneurial behaviours

The formation of a business is the result of the interaction of a number of factors, particularly the demographic or personal characteristics and background of entrepreneurs, their reasons for starting up, and the unique environmental conditions they face (Shabbir and Di Gregorio, 1996, p.508). In studying entrepreneurship, it is possible to discriminate factors that influence entrepreneurial behaviour (Gurol and Atsan, 2006, p.28). These factors are individual, social and environmental. In this study, the focus is on investigating factors that influence the development of productive entrepreneurial behaviours. The study focuses on individual, social and environmental factors as

influential to the development of productive entrepreneurial behaviours among university students. These factors link to productive entrepreneurial behaviour because goals and motives play a role in predicting human behavior and that a link between intentions, motivations, and behavior indeed exists (Carsrud & Brännback, 2011, p.12). Further, Carsrud *et al.* (2011, p.14) state that a basic assumption is that entrepreneurs have the same motivations as anyone for fulfilling their needs and wants in the world. However, they use those motivations in a different manner as they create ventures rather than just work in them.

2.6.1 Demographic characteristics and background of students

A growing cohort of psychology-based researchers has renewed interest in entrepreneurs' personal characteristics as predictors of success by moving beyond the past focus on traits to study competencies, motivation, cognition and behaviour (Baum and Locke, 2004, p.587). According to Koh (1996, p. 13) demographic, personality or psychological characteristics view entrepreneurs as individuals with unique values, attitudes and needs which drive them and differentiate them from non-entrepreneurs. Its premise is that one's needs, drives, attitudes, beliefs and values are primary determinants of behaviour. In this study, students have been asked to highlight if they have had exposure to entrepreneurship and whether the exposure had influenced them to think about starting a business.

Six personality characteristics such as innovativeness, need for achievement, locus of control, risk taking propensity, tolerance for ambiguity and self-confidence are identified to define entrepreneurial behaviour of individuals (Gurol and Atsan, 2006, p.28). To demonstrate the importance of innovativeness, Baumol (1990, p.893) asserts that while the total supply of entrepreneurs varies among societies, the productive contribution of the society's entrepreneurial activities varies much more because of their allocation between productive activities, such as innovation, and largely unproductive activities, such as rent seeking or organised crime.

McClelland's theory of the need to achieve advocates that individuals who have a strong need to achieve are among those who want to solve problems themselves, set targets and strive for these targets through their own efforts, demonstrate a higher performance in challenging tasks and are innovative in the sense of looking for new and better ways to improve their performance (Littunen, 2000, p.296). The importance of exposing university students to productive entrepreneurship becomes critical, given their willingness to achieve targets through their own efforts. Locus of control, according to Koh (1996, p.14), represents expectations wherein individuals with an internal locus of control believe that they are able to control life's events whilst individuals with an external locus of control believe that life's events are the result of external factors, such as chance, luck or fate. Gurol and Atsan (2006, p.30) point out that risk taking propensity refers to the propensity of an individual to exhibit risk taking or risk avoidance when confronted with risky situations. Cramer, Hartog, Jonker and Van Praag (2002, p.29) argue that entrepreneurship is historically associated with risk taking.

The tolerance of ambiguity trait is defined as the ability of the entrepreneur to perceive ambiguous situations in a positive and challenging way. In this trait, entrepreneurs organise their thoughts and make decisions under conditions of uncertainty (Ibrahim and Soufani, 2002, p.425). There is belief that an entrepreneur must have the confidence that he or she is able to achieve the goals that are set and is expected to have a perceived sense of self-esteem and competence in conjunction with his or her business affairs (Koh, 1996, p.15).

Given these personality characteristics, Carsrud and Brännback (2011, p.16) conclude that once an entrepreneur has had the stimulation of starting a firm, they frequently return to that behaviour because of intrinsic motivation and the internal and external rewards they received doing that behavior in the past. Hence the need to achieve a goal influences the behaviour. However, Carsrud and Brännback (2011, p.17) caution that an entrepreneurial intention does not always lead directly to entrepreneurial behaviours.

2.6.2 Social factors

The social factors model as argued by Alstete (2002, p.224) examines the personal background, family background, stage of career, early life experiences and growth environment. Veciana, Aponte and Urbano (2005, p.171) cite a study conducted by Kolvereid (1996) which concluded that the relationship between family background and intentions, although not statistically significant, influenced self-employment intentions indirectly through its effect on attitude, subjective norm, and perceived behavioural control. Given Baumol's views (1990, p.898) that productive entrepreneurs benefit the entire society as opposed to those who believe in crime and rent-seeking, Carsrud and Brännback (2011, p.11) state that there are other motives for a person to create a venture in the area of social entrepreneurship, where the social gains are the primary motivators. Carsrud and Brännback (2011) indicate that lifestyle entrepreneurs are driven by goals and motives, which may indeed be economic, but not necessarily to maximise economic gains.

2.6.3 Environmental factors

The environmental factors model looks at the contextual factors such as value of wealth, tax reduction and indirect benefits, timing of opportunities in the career process, the impact of market conditions, social upheaval and supportive social and economic culture (Green, David and Dent, 1996, p.49). Bloodgood, Sapienza and Carsrud (1995, p.132) citing Moky (1990) state that with regard to the cultural, political and economic environment, the degree to which a society values the business development versus the status quo influences the occurrence of entrepreneurial behaviour. Bloodgood *et al.* (1995) further state that political pressures may advance or retard entrepreneurial action, and the propensity of a society to forego consumption in order to attempt inherently risky entrepreneurial behaviour can also impact entrepreneurial behaviour.

2.6.4 Education process

The education system is one of the factors that can influence the development of productive entrepreneurial behaviours. The education system has traditionally inhibited the development of entrepreneurial qualities because it taught young people to obey, reproduce facts and to engage in wage-employment after finishing their education (Van der Kuip and Verheul, 2003, p.4). However, Rae (2010, p.599) argues that education is an important formative medium for influencing entrepreneurial culture and behaviours. Further, Rae (2010, p.603) states that education is vital in developing productive entrepreneurial capabilities because it shapes ideas of what it means to be an entrepreneur and to create critical awareness that contributes to the accountability of entrepreneurs to society.

The behaviour to engage in the start-up process is what really matters and lacks in most entrepreneurship programmes (Ndedi, 2009, p.468). Citing Kirby (2002), Timmons and Spinelli (2003) and Ndedi (2009, p.468) point out that successful entrepreneurs have a set of personal skills, attributes and behaviour that go beyond the purely commercial and benefit the society. It is these attributes, the way of thinking and behaving, which needs to be developed in students if their entrepreneurial capabilities are to be enhanced and they are to be equipped to meet the challenges of the entrepreneurial climate of the 21st century. Therefore, both the content of courses and the process of learning need to change. Solomon (2007, p.169) concurs that if entrepreneurship education is to produce entrepreneurial founders capable of generating real enterprise growth and wealth, the challenge to educators will be to craft courses, programmes and major fields of study that meet the rigours of academia while keeping a reality-based focus and entrepreneurial climate in the learning experience environment.

To demonstrate some of the challenges of teaching entrepreneurship, Obisanya, Akinbami and Fayomi (2010, p.91) used a Likert scale to measure the students' attitudes, entrepreneurial characteristics and behavioural habits towards entrepreneurial activities. Their findings show that despite a considerable share of respondents thinking about

entrepreneurship, most of them do not want to start a business venture after graduation, but postpone this to a distant future. In the South African context, Scheepers *et al.* (2009, p.40) concur with these findings and further state specifically that within the first five years of graduation close to two thirds (64.7%) of South African students preferred dependent employment. Despite these findings, Farrington, Gray & Sharp (2011, p.11) suggest that a positive attitude towards entrepreneurial behaviour among students should be developed as more students would wish to start and manage their own businesses in future. Henderson (2002, p.46) states that at the community level, those who start their own businesses create new jobs, increase local incomes and wealth, and connect the community to the larger economy. Therefore, education plays an important role towards influencing productive entrepreneurial behaviours among university students.

The tertiary education institutions cannot influence productive entrepreneurial behaviours alone. Mok (2005, p.541) suggests that the major role of the government is to create a conducive business environment for fostering productive entrepreneurial behaviours. Chua (2003, p.11), cited in Mok (2005, 542), states that the Hong Kong government's initiatives are based on a manifesto of creating a favourable business environment, including a stable macro economy, a simple and clear tax regime with low tax rates, good infrastructure, ample supply of human resources, a culture which encourages application of technologies, as well as a sound legal system to protect individual rights and intellectual properties. All of these benefits have a positive impact on productive entrepreneurial behaviours.

2.6.5 Government policy

A role for government policy is that it can influence the allocation of entrepreneurship more effectively than it can influence its supply, given that allocation is heavily influenced by the relative payoffs society offers to productive and unproductive activities (Baumol, 1990, p.893). An observation is that government policies mould institutional structures for entrepreneurial action, encouraging some activities and discouraging others. Therefore, government policy has the power to influence entrepreneurial activity.

The influence is not necessarily desirable as it may steer entrepreneurs towards actions that have negative socioeconomic externalities (Minniti, 2008, p.781).

A profound shift in government policies towards business is occurring, and a new policy agenda designed to promote entrepreneurial activity is coming to the forefront (Gilbert, Audretsch and McDougall, 2004, p.313). Acs and Szerb (2006, p.115) state that policy-makers are increasingly recognising entrepreneurship as the key to building and sustaining economic growth. Historically, much of the thinking and policy has focused on trying to attract existing firms from somewhere else, either to relocate or to build new facilities in a particular area. Acs and Szerb (2006) suggest that the formation and growth of new firms, wherever this occurs, is a positive sum game – not just for the locality, but for the nation as a whole. High-tech and high growth clusters in the United States, India, China, Taiwan, Ireland and Israel demonstrate the overall positive effects of productive entrepreneurship as these not only benefit these countries but the world over.

South Africa's economy has historically been dominated by large corporations and the public sector. During the apartheid era, there was a conspicuous absence of small businesses in the dominant sectors of the economy and very little attention was paid to small enterprise promotion in public policy (Herrington, Kew and Kew, 2009, p.31). Herrington *et al* (2009, p.12) state that new policy and institutional frameworks have been introduced, but the extent of the problem is so vast that the government cannot tackle it alone.

It is important that at tertiary education level the content of entrepreneurial programmes is examined but also the way the content is taught so that behavioural habits towards productive entrepreneurship are developed. Furthermore, governments, private sector and Non-Governmental Organisations (NGOs) should examine the nature, magnitude and impact of support they provide to start-up and existing businesses.

2.7 Conclusion

This chapter provides discussions on the definitions of entrepreneurship and highlights that the concept is diverse and involves various disciplines. Each discipline tends to define entrepreneurship from its contextual analysis. However, a pattern emerged that entrepreneurship is about attitudes and skills which lead to an action and the results of the action do not only benefit the entrepreneur but the society as a whole. There was overwhelming agreement that entrepreneurship contributes positively to the economic growth of any country. However, other researchers cautioned that different countries yield different results, depending on whether they are developed or developing.

The importance of teaching entrepreneurship courses was viewed as critical in stimulating the entrepreneurial behaviour. It was not only about the content of entrepreneurship courses, but another important aspect was the method of teaching the students. The role of tertiary institutions was seen as vital in cultivating the productive aspects of entrepreneurship.

Factors that influence the development of entrepreneurship were highlighted as individual, social and environmental in nature. Individual factors consisted of personality or psychological traits. Social factors consisted of the family background, stage of career and other life experiences of an individual. Environmental factors consisted of the entire environment that affects individuals such as the education system, government policies or support, social issues and the impact of market forces.

The following chapter outlines the research methodology for this study including, amongst other things, the research philosophy, the problem statement, the research objectives, data collection methods, sampling methods and data analysis.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides insight into techniques and methods used to gather information for the empirical part of the study. The first section highlights the problem of unemployment which requires various interventions. The second section presents the research objectives which are the focus of the analysis. The third section explores research philosophies such as positivism, post-positivism and interpretivist as forming the basis for carrying out the study. The fourth section deals with the research design and followed by the sampling section. The processes for the data collection and the methods used to process and analyse the data are described in the sixth and seventh sections, respectively. Last, the section on the verification and reliability of the questionnaires is presented to provide different perspectives and is followed by sections on ethics and the conclusion.

3.2 Problem statement

In the first quarter of 2013, January to March, Statistics South Africa published the Quarterly Labour Force Survey which highlighted that unemployment rate was 25.2% in South Africa (Stats SA, 2013, p5). Of this unemployment rate, approximately 60% was made up of persons with educational levels lower than matric and this percentage had remained unchanged since 2008. The survey (2013, p.15) noted that unemployed persons with tertiary qualifications represented 6.4%. This gave an indication that the rest of the unemployed persons had finished matric but did not proceed to acquire a tertiary qualification. Isaacs, Visser, Friedrich and Brijlal (2007, p.614) estimated that only 10% of the learners entered the formal job market after completing matric in 2007. Given this research data, it was crucial to study factors that influence the development of entrepreneurship as Lüthje and Franke (2002, p.2) asserted that the self-employed had more often a tertiary qualification compared to wage and salary earners.

The earlier section noted that unemployment levels were high in South Africa at a rate of 25.2% as recorded in the first quarter of 2013 (Stats SA, 2013, p.5). Kingdon and Knight (2004, p.391) argued that unemployment was potentially a matter of serious concern – for its effects on economic welfare, production, erosion of human capital, social exclusion, crime, and social instability. This was different to the pattern that existed in most developing countries where paucity of formal sector jobs manifested itself in large informal sectors rather than in high levels of open unemployment. Co and Mitchell (2006, p.348) agreed that the only way for South Africa to effectively address unemployment and revitalise the economy was through the rediscovery of the entrepreneur who took risks, broke new ground and introduced new innovations.

However, the unemployed tended to possess lower endowments of human capital and entrepreneurial talent required to start and sustain a new business (Audretsch, Carree and Thurik, 2002, p.2). Roodt (2005, p.19) suggested that entrepreneurs of the future needed to attain higher levels of education and skills to be able to interact with foreign suppliers and customers if they were to succeed. Given that levels of unemployment were rising amongst the educated, Stats SA Quarterly Labour Force Survey (Stats SA, 2013) cited a rate of 6.4%. Co and Mitchell (2006, p.349) stated that higher education institutions could help create a more entrepreneurial disposition among young people by instilling a clear understanding of risks and rewards, teaching opportunity seeking and recognition skills, as well as creation and “destruction” of enterprises. In line with Baumol’s (1990, p.898) productive, unproductive and destructive entrepreneurs, it was important to encourage higher education institutions to emphasise the creation of productive entrepreneurs as they did not only benefit themselves but the society at large.

3.3 Research philosophy

3.3.1 Ontology

The philosophy of science referred to the conceptual roots undergirding the quest for knowledge, where science was described broadly as the systematic quest for knowledge. Incorporated within philosophy of science were beliefs or assumptions regarding ontology (the nature of reality and being), epistemology (the study of knowledge, the acquisition of knowledge, and the relationship between the knower (research participant) and would-be knower (the researcher), axiology (the role and place of values in the research process), rhetorical structure (the language and presentation of the research), and methodology (the process and procedures of research (Ponterotto, 2005, p.127). Guba and Lincoln (1994, p.107), Ponterotto (2005, p127) and Goduka (2012, p.126) defined a paradigm as a constellation of beliefs, values and techniques shared by members of a research community. Further, Goduka (2012, p.126) added that paradigms determined how members of research communities viewed both the phenomena of their particular community studies, and the research methodology that should be employed to study them.

Four paradigms should be considered within the context of the philosophy of science. Neuman (2011, p.82) pointed out that positivism was associated with structural-functional, rational choice and exchange-theory frameworks. Under the philosophical anchor of ontology, in the first paradigm, positivists contended that there was but one true reality that was understandable, identifiable, and measurable (Ponterotto, 2005, p.130), driven by immutable natural laws and mechanisms (Guba & Lincoln, 1994, p.109). Goduka (2012, p.126) agreed that from the positivism paradigm viewpoint, science was seen as the way to arrive at truth in order to understand the world well enough to predict and control it.

In the second paradigm, post-positivists accepted a true reality, but they believed it could only be apprehended and measured imperfectly (Ponterotto, 2005, p.130) because of basically flawed human intellectual mechanisms (Guba & Lincoln, 1994, p.109). Letourneau and Allen (1999, p.623) differed from the view of accepting a true reality by defining post-positivism as the search for warranted assertability as opposed to truth, traditionally represented by universal laws or absolutes. Goduka (2012, p.128) agreed with this view that post-positivist critical realists recognised that all observation was fallible and had error, and that all theory was revisable.

In the constructivism paradigm, Goduka (2012, p.125) argued that realities were local and specific in the sense that they varied between groups of individuals and were actively constructed. Guba and Lincoln (1994, p.111) expanded by stating that constructivists were alterable, as were their associated realities. Ponterotto (2005, p.130) shared the same view that, according to constructivists-interpretivists, realities were subjective and influenced by the context of the situation, namely the individual's experience and perceptions, the social environment, and the interaction between the individual and the researcher. In the critical theory paradigm, Ponterotto (2005, p.130) and Guba and Lincoln (1994, p.110) stated that the focus was on realities that were mediated by power relations and these were socially and historically constituted. Under this philosophy, the positivism was the only paradigm that was considered because the nature of reality could be understood, identified and measured. If students did not want to start their own business after graduation, this would not come as a shock, but would be understood as it was a common practice for graduates to work for someone else after graduating.

3.3.2 Epistemology

Under the philosophical anchor of epistemology, Ponterotto (2005, p.131) stated that positivists believed that the researcher, the research participant and topic were assumed to be independent of one another (dualism), and by following rigorous, standard procedures, the participant and topic could be studied by the researcher without bias (objectivism). Guba and Lincoln (1994, p.110) pointed out that when the researcher was influencing an

investigated object or was being influenced by it, various strategies should be taken to reduce or eliminate the influence. In the post-positivism paradigm, Ponterotto (2005, p.131) argued that the researcher might have some influence on that being researched, but objectivity and researcher-subject independence remained important guidelines for the research process. In the third paradigm, Ponterotto (2005, p.131) stated that constructivists-interpretivists advocated a transactional and subjectivist stance that maintained that reality was socially constructed and, therefore, the dynamic interaction between the researcher and participant was central to capturing and describing the “lived experience” of the participant.

In the last paradigm, Guba and Lincoln (1994, p.110) and Ponterotto (2005, p.131) mentioned that critical theorists believed that the relationship between researcher and participant was transactional and subjective; the relationship was also dialectic in nature, with the goal of inciting transformation in the participants which could lead to group empowerment and emancipation from oppression. Under this philosophy, the positivism paradigm was adopted as the researcher did not influence the research participant and the topic but instead administered a closed ended questionnaire.

3.3.3 Axiology

Axiology was described as concerning the role of researcher values and perceptions in the scientific process. The positivism and post-positivism paradigms maintained that there was no place for values in the research process and unbiased. By using standardised, systematic investigative methods, the researcher eliminated or strictly controlled any influence she or he might have on the participants or on the research process (McGregor and Murnane, 2010, p.127; Ponterotto, 2005, p.131 and Johnstone, 2004, p.261). Ponterotto (2005, p.131) stated that constructivists-interpretivists maintained that the researcher’s values and lived experience could not be divorced from the research process. The researcher should acknowledge, describe, and “bracket” his or her values, but not eliminate them.

Whilst the criticalists took values a step further than constructivists in that they admittedly hoped and expected their value biases to influence the research process and outcome. More specifically, because critical theory concerned itself with unequal distributions of power and the resultant oppression of subjugated groups, a preset goal of the research was to empower participants to transform the status quo and emancipate themselves from ongoing oppression. Under this philosophy, the positivism and post-positivism paradigms were adopted because the idea of the researcher was to be unbiased through the research process and values kept out of influencing the research.

3.3.4 Rhetorical structure

Rhetoric referred to the language used to present the procedures and results of research to one's intended audience. Rhetoric, understandably, flowed closely from one's epistemological and axiological stance. In the positivist and post-positivist positions, in which objectivity and a detached, emotionally neutral research role prevailed, rhetoric was precise and "scientific," presented in an objective manner. By marked contrast, in the constructivist and criticalist stances, in which a subjective and interactive researcher role prevailed, the rhetoric of the final research report would be in the first person and would often be personalised (Johnstone, 2004, p.261 and Ponterotto, 2005, p132).

The researcher's own experience, expectations, biases, and values would be detailed comprehensively. Furthermore, the impact of the research process on the emotional and intellectual life of the researcher would be reflected upon and discussed openly. Under the philosophy of the language used in presenting results, the researcher considered the positivist and post-positivist positions as the goal was to be objective and to eliminate any biases and values.

3.3.5 Methodology

Methodology is defined as referring to the process and procedures of the research (Ponterotto, 2005, p.132). Naturally, research method flowed from one's position on ontology, epistemology, and axiology. Positivists and post-positivists attempted to simulate, as closely as possible, strict scientific methods and procedures where variables were carefully controlled or manipulated, and where the researcher's emotional or expectant stance on the problem under study was irrelevant. The goal of this position was to uncover and explain relationships among variables that would eventually lead to universal laws that form the foundation for prediction and control of phenomena. By marked contrast, constructivists and criticalists, given their stance on the centrality of intense researcher-participant interaction and on the need to be immersed over longer periods of time in the participants' world, more often embraced naturalistic designs in which the researcher was ensconced in the community and day-to-day life of her or his research participants.

In summary, this research study did not follow the post-positivism, constructivism-interpretivism and critical theory paradigms. The post-positivism paradigm stated that all observation was fallible and had error (Goduka, 2012, p.128), and given that Ponterotto (2005, p.130) stated that the researcher might have some influence on that being researched, this paradigm was deemed unsuitable. Both the constructivism-interpretivism and critical theory paradigms emphasised the centrality of intense researcher-participant interaction (Guba & Lincoln, 1994, p.109; Ponterotto, 2005, p.132), the intention of the research was not to spend time to examine behaviours of students in order to arrive at understandings and interpretations of how students created and maintained their social worlds (Neuman, 2011, p.88). These paradigms were also deemed unsuitable for this research.

Therefore, the positivism paradigm was deemed suitable because it sought to gather facts through using quantitative methods consisting of surveys and statistical analysis (Goduka, 2012, p.126; Guba & Lincoln, 1994, p109). Therefore, factors influencing the

development of productive entrepreneurial behaviour among university students would be identified so that truth could be ascertained in order to understand the environment, and predict and control it.

3.4 Research objectives

The main research objective of this study was to identify factors influencing the development of productive entrepreneurial behaviour among students at the Westville, Pietermaritzburg and Howard campuses of the University of KwaZulu-Natal. The study selected university students because of the perception that education played a prominent role in establishing an interest in entrepreneurship (Davey, Plewa and Struwig, 2011, p.337), despite findings that students preferred dependent employment after graduation (Obisanya *et al.*, 2010, p.91 and Scheepers *et al.*, 2009, p.40). The University of KwaZulu-Natal was chosen because that was where the researcher was doing his studies.

The results could inform public policy debates about some of the opinions, beliefs and attitudes of university students regarding the factors influencing the development of productive entrepreneurship. Further, programmes could be designed to intervene in areas that could easily be influenced, for example, creating awareness among university students that starting and running a business should be seen as an option towards wealth creation. Further, the results of the study could be used to contribute towards the formulation of public policy focusing on the promotion of entrepreneurship and fostering the development of productive entrepreneurship amongst university graduates.

Some of the specific research objectives investigated included:

- Determine the awareness and understanding of the importance of entrepreneurship as a vehicle for earning a living;
- Assess the attitudes of students towards starting a business;
- Assess the students' likelihood to consider starting a business after graduation;
- Investigate the levels of exposure of students to entrepreneurship;

- Determine the perceived factors that enhanced or inhibited the development of new business; and
- Explore government initiatives to support potential graduate entrepreneurs.

3.5 Research design

The research design is defined as the blueprint for fulfilling objectives and answering questions (Cooper and Schindler, 2008, p.89). Epistemologically, the investigator and investigated were independent entities. Therefore, the investigator was capable of studying a phenomenon without influencing it or being influenced by it (Guba and Lincoln, 1994, p.110). Sandelowski (2000a, p.248) stated that one of the most important features distinguishing what was commonly referred to as qualitative from quantitative inquiry was the kind of sampling used. While qualitative research typically involved purposeful sampling to enhance understanding of the information rich case, quantitative research involved probability sampling to permit statistical inferences to be made. Notwithstanding these key differences, purposeful and probability sampling techniques could be combined usefully.

Both qualitative and quantitative research could use various types of research design such as descriptive, exploratory and explanatory. Sandelowski (2000b, p.334) stated descriptive research was typically depicted in research texts as being on the lowest rung of the quantitative research design hierarchy. Exploratory research was defined by Neuman (2011, p.33) as research in which the primary purpose was to examine a little understood issue or phenomenon to develop preliminary ideas and move refined research questions by focusing on the ‘what’ question. Neuman (2011, p.35) defined descriptive research as research in which the primary purpose was to ‘paint a picture’ using words or numbers and to present a profile, a classification of types, or an outline of steps to answer questions such as who, when, where, and how. Lastly, Neuman (2011, p.35) defined explanatory research as research in which the primary purpose was to explain why events occur and to build, elaborate, extend or test theory.

Techniques used in the quantitative method included randomisation, highly structured protocols and written administered questionnaires with a limited range of predetermined responses. Sample sizes tended to be larger than those used in qualitative research so that representative samples could be used (Sale, Lohfeld and Brazil, 2002, p.45). In contrast, Sale *et al.* (2002, p.45) argued that ontologically the qualitative method had multiple realities or multiple truths based on one's construction of reality. On an epistemological level, there was no access to reality independent of minds, no external referent by which to compare claims of truth. Techniques used in qualitative studies included in-depth and focus group interviews and participant observation. Samples were not meant to represent large populations.

The study followed a quantitative method with a survey design based on the positivism paradigm where all phenomena were reduced to empirical indicators which represented the truth. The purpose of collecting quantitative data using survey research was to gather information on the backgrounds, behaviours, beliefs, or attitudes of a large number of people (Neuman, 2011, p.43). According to Sale *et al.* (2002, p.44), the ontological position of the quantitative paradigm was that there was only one truth. Guba and Lincoln (1994, p.110) suggested that epistemologically, the investigator and investigated were independent entities. Therefore, the investigator was capable of studying a phenomenon without influencing it or being influenced by it. Kelly, Clark, Brown and Sitzia (2003, p.262) stated the following advantages and disadvantages of conducting a survey research:

Advantages

- The research produced data based on real world observations (empirical data).
- The breadth of coverage of many people means that it was more likely than some other approaches to obtain data based on a representative sample, and could therefore be generalised to a population.
- Surveys could produce a large amount of data in a short time for a fairly low cost.

Disadvantages

- The significance of the data could become neglected if the researcher focuses too much on the range of coverage to the exclusion of an adequate account of the implications of those data for relevant issues, problems or theories.
- The produced data were likely to lack details or depth on the topic being investigated.
- Securing a high response rate to a survey could be hard to control.

The disadvantages were overcome by focusing on fewer campuses to avoid long distance travels and also requested the assistance of administrators to facilitate access to student lectures. Even though a great number of respondents complained that the questionnaire was too long, the intention was to capture as much information as possible to enable the analysis to work with details. To generate a high response rate, more questionnaires than the target were made available.

3.6 Sample and sampling methods

A sample is described as a smaller set of cases a researcher selects from a larger pool and generalises to the population (Neuman, 2011, p.224). In this research the population constituted undergraduate and honours students at the University of KwaZulu-Natal. Students were selected as a subject of the investigation, given other research findings concluding that education plays a prominent role in establishing an interest in entrepreneurship (Davey, Plewa and Struwig, 2011, p.337). The University of KwaZulu-Natal was chosen as it was convenient for the researcher, as a registered student at the institution, to access students that participated in the study. Originally, the researcher wanted to focus only at the Pietermaritzburg campus. However, the research panel recommended that Westville be included in order to balance results between students with exposure and those with no exposure to business management or entrepreneurship. Given the slow participation of students at the Pietermaritzburg and Westville campuses, the researcher decided to include Howard campus.

This study targeted a total sample size of 350 students from all the three campuses. If the researcher would have struggled to reach the targeted sample size, other campuses such as Edgewood and Medical School would have been included in the survey. At the Pietermaritzburg campus, a sample was drawn from the population of 2 487 undergraduate and 70 honours students at the School of Management, Information Technology (IT) and Governance. The School of Management, IT and Governance's record or list of all the students constituted a sampling frame. Given that the questionnaires were handed out to students after they completed their lectures, each class of students constituted a sampling frame. To draw a sample size from the sampling frame, Sekaran's population to sample size table (1992, p.253) and the sample size calculator (the Survey System website) were used as a guide. A sample size for the undergraduate population of 2 487 at a confidence level of 95% and a margin of error (degree of accuracy) of 6.5% was 208. For the 70 honours students at a confidence level of 95% and a margin of error of 9.5%, the sample size was 42. However, the actual number of students that participated in the study was 40.

At Howard campus, a sample was drawn from the population of 2 870 undergraduate students from the School of Engineering. Given that the number of students enrolled for post graduate studies was very low at this School, no sample was drawn from this category. The methodology used at the Pietermaritzburg campus was employed at the Howard campus. A research assistant assisted the researcher to administer the questionnaire at the Howard campus. At the Howard campus, a sample size for the undergraduate population of 2 870 at a confidence level of 95% and a margin of error (degree of accuracy) of 9.65% was 100. The target sample was achieved as 100 students participated in the study.

At Westville campus, the researcher struggled to get assistance from the Schools of Life and Health Sciences. These Schools had a combined enrolled figure of 2 932. However, the researcher had to administer the questionnaires himself by targeting students mainly at the student cafeteria using a simple random sampling technique. A sample size for the entire population of 12 210 students at Westville campus at a confidence level of 95%

and a margin of error (degree of accuracy) of 5% was 372. If the view of Sekaran (1992, p.253) was adopted for the Westville campus, a sample size of 370 would have been selected from a population of 12 000 students. However, 210 students participated in the study at this campus.

At this point, the researcher had reached the target of 350 students participating in the study. In all the three campuses, higher margins of error were used, given the nature of the study as well as the time and cost constraints to conduct the research. According to Neuman (2011, p.227), a random sample was most likely to yield a sample that truly represented the population and would let a researcher statistically calculate the relationship between the sample and the population – that is, the size of the sampling error. In this research, the probability random technique used was the simple and systematic sampling, for targeting students randomly, mainly at the student cafeteria and in lecture rooms, respectively.

In order to select the sample, a sampling interval was calculated from a sampling frame by skipping elements in the frame before selecting one for the sample in the case of lecture room administered questionnaires. In this research, the sampling interval was 4 for the systematic sampling technique which took place in lecture rooms. In total, a sample of 350 students participated in the study and the following table provides a breakdown per campus:

Table 3.1: Study population

Campus	Population	Sample size
Pietermaritzburg	2 557	40
Westville	12 210	210
Howard	2 870	100
Total	17 637	350

Source: Own compilation

3.7 Data collection

Three primary data collection methods such as survey, observation and experiment were highlighted. The survey research involved the researcher selecting a sample of respondents from a population and administering a structured or semi-structured questionnaire to them. Observation was a process through which primary data was obtained by investigators about the behavioural pattern of people, objects or occurrences. The experiment involved a process where the researcher would manipulate an independent variable and measure the effect (Gerber-Nel, Nel and Kotze, 2005, p88).

This study used the survey data collection method. According to Gerber-Net *et al.* (2005, p.94) surveys could be divided into four major types such as personal interviews, telephone surveys, mail surveys and self-administered surveys. The data for this study was gathered through self-administered questionnaires. A questionnaire was designed with the aim of soliciting views and perceptions from university students. Questionnaires were seen as the most appropriate method to investigate the importance of entrepreneurship, find out the attitude of university students towards entrepreneurship, the likelihood that students would start their own enterprises after graduating, whether they have been exposed to entrepreneurship in their school going years, factors influencing the development of productive entrepreneurial behaviour among university students and to find out what are government, private sector and universities' initiatives to support potential graduate entrepreneurs.

The questionnaire covered the following sections:

- Demographical Information
- Importance of entrepreneurship
- Attitude towards entrepreneurship
- Likelihood of starting own business
- Exposure to entrepreneurship (personal, community, educational levels)
- Other factors influencing the development of productive entrepreneurial behaviours among university students
- The initiatives of government, private sector and universities to support potential graduate entrepreneurs

A structured questionnaire with closed-ended questions was developed and had limited open-ended questions because respondents needed to provide specific details of their locations and courses of study. The questionnaire was nine pages long in order to examine issues in-depth by providing a variety of options and scenarios. A respondent took an average of 20 minutes to complete the questionnaire. The questionnaire was hand delivered to the respondents whilst they were at the student cafeteria at the Westville campus. The researcher used research assistants to administer the questionnaire, especially at the Pietermaritzburg and Howard campuses. In the case of Westville, the researcher administered the questionnaires himself by asking students to complete the questionnaires whilst they were relaxing at the student cafeteria. A cover letter assuring the respondents about the anonymity and confidentiality of the information was attached to the questionnaire. Questions were answered by simply checking the box from a set of possible answers.

The process ensured that answers could be compared amongst students for coding purposes but also for questionnaires to be completed in class in order to generate a high response rate. Neuman (2011, p.295) notes that the failure to get a valid response from every sampled respondent weakens a survey. Given that the respondents were undergraduate and honours students, the questions were made to be interesting and easy to answer. The advantage of using a questionnaire was that it was quicker to get responses as respondents complete the questionnaire within a specified period of time and was less costly. The disadvantage with self-administered questionnaires was that the researcher could not see the facial expression of respondents. It was difficult to assess if respondents were positive, excited or depressed when answering the questions.

The questionnaire had a cover page which provided instructions to the respondents and they had to fill out demographical information details such as age, race, gender and place of birth (location). The questionnaire required respondents to mark the designated block with a cross. The questions contained in the questionnaire were in a matrix question or Likert-type scale format.

An example is the following table using a Likert scale from 1 (strongly disagree) to 5 (strongly agree) scale:

	strongly disagree	disagree	neutral	agree	strongly agree
I will start a business immediately after completing my studies	1	2	3	4	5

In order to avoid ambiguity and misunderstanding, Cooper and Schindler (2008, p.91) suggest that a pilot test be conducted to detect weaknesses in design and instrumentation and to provide proxy data for selection of a probability sample.

In this research, the questionnaires were piloted on a small sample of 10 students. The respondents gave feedback on the length of the questionnaire, the ease to understand the content and overall remarks of how the questionnaire was designed. Given this feedback, the questionnaire was improved to ensure clarity areas that were added in the questionnaire included the following:

- the year of study in the demographic section;
- the importance of graduates starting their own businesses after graduating;
- In an event a student becomes unemployed, they would consider starting a business;
- Personal circumstances would hinder students from starting a business;
- The section on barriers or obstacles that hinder the development of productive entrepreneurial behaviour was changed to other factors influencing the development of productive entrepreneurial behaviour. Under this section, further questions were added looking at the respondents' personal capabilities and their mythical thinking about starting own business.
- The last section was changed from focusing only on the role of government but to include the roles that the private sector and universities could play.

Some respondents gave feedback that the questionnaire was too long, but overall it made some of them to think very seriously about entrepreneurship. A total of 350 fully completed questionnaires were returned from the sample, which constitutes a response rate of 100%.

3.8 Data analysis

Data used for the study was collected and analysed with the assistance of an independent statistician using the Statistical Package for the Social Sciences (SPSS Version 20, 2011) to illustrate and explain some graphs used to analyse and interpret the findings of the research. Gerber-Nel *et al.* (2005, p.204) pointed out that the purpose of analytic methods was to convert data into information needed to make decisions. The choice of the methods of statistical analysis depended on the type of question to be answered, the number of variables, and the scale of measurement. The type of question the researcher was attempting to answer was a consideration in the choice of the statistical technique.

Data analysis process for the study at hand included descriptive statistics. Eiselen, Uys and Potgieter (2005, p.50) state that descriptive statistics summarise some aspect of values making up the variable. In this research, there were 350 variables and if this data was simply presented raw, it would be difficult to visualise what the data was showing. According to Neuman (2011, p.346), accuracy was extremely important when coding data. He further clarified that errors made when coding or entering data into a computer threatened the validity of measures and could cause misleading results.

There were two types of statistics used to describe data, measures of central tendency and measures of spread. Measures of central tendency described the central position of a frequency distribution for a group of data (Neuman, 2011, p.349). The statistics used in this research was the mean because it was the most popular and well known measure of central tendency (Neuman, 2011). Measures of spread summarised a group of data by

describing how spread out the responses were. The statistics used in this research was the standard deviation because it measured the spread of scores within a set of data.

3.9 Validity of research

Babbie and Mouton (2002:15) reveal that validity determines whether the research truly measures what it is supposed to measure or how truthful the research results are. In this study, survey research was used because it was widely used and accepted as a data collection method. Questionnaires were filled in by participants themselves in order to minimise bias as all the questions were simple and structured. Neuman (2011, p.193) outlined four types of measurement validity as follows:

- Face validity – involved judgement by the scientific community that the indicator really measured the construct. This research study did not follow this type of validity.
- Content validity – involved the capturing of the entire meaning, which was also not the intention of this research.
- Criterion validity – involved the verification of indicator by comparing it with another measure of the same construct in which a researcher had confidence. This research study investigated factors influencing the development of productive entrepreneurial behaviours among university students and its findings would be verified by comparing them to other similar studies.
- Construct validity – involved the measurement of whether multiple indicators were consistent or not. This research study did not follow this validity because it would be invalid to conclude that students of the same construct operated in similar ways.

3.10 Reliability of research

Bless and Higson-Smith (1995, p129) define reliability as the extent to which the empirical measures are accurate and stable when used for the study of the concept in several studies. An instrument that produces different scores every time it is used to measure an unchanging value has low reliability. Babbie and Mouton (2002:81) agree that the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability. Neuman (2011, p.189) mentioned three types of reliability which were stability, representative and equivalence. The stability reliability was not used in this research as it meant that the same respondents would have had to be asked to participate again in the same study and would have had to provide the same responses. The representative reliability was not used in this research as the intention was not to use the same indicator to deliver the same answer when applied to different groups. The equivalence reliability was used in this research using Cronbach's alpha as a statistical measure where a construct was measured with multiple specific measures.

3.11 Ethics

Like all social research, people can conduct surveys in ethical and unethical ways. A major ethical issue in survey research is the invasion of privacy (Neuman, 2011, p.313). In this study, the researcher applied for permission from the ethics committee to conduct the research. The ethics committee granted permission to the researcher to carry out the study. The ethical research policy was followed, ensuring that guidelines for participant anonymity were observed. It must be noted that participation in the study was voluntary, and participants were asked to read an information sheet and sign a consent form, confirming that they understood the aims and objectives of the research.

Although the questionnaire asked for some demographic information, none of the questions were mandatory. The participants were informed that they could decline the

request to participate in the research, if they were busy, uncomfortable or for any other reason. The ethics committee expected the researcher to observe some ethical issues in order to protect specific categories of people as well as the credibility of the study results. Some of the categories of people, excluded from participating in the survey, were identified by the ethics committee as vulnerable and therefore could compromise the results of the survey, given their mental or safety conditions included:

- Persons who are intellectually or mentally impaired
- Persons who have experienced traumatic or stressful life circumstances
- Persons highly dependent on medical care
- Persons in captivity
- Persons living in particularly vulnerable life circumstances

This study did not focus on the general population but focused on university students who were generally healthy and mentally capable to understand and answer questions pertaining to productive entrepreneurial behaviours. In an event, a respondent would have disclosed a mental or a stressful condition which could negatively affect the results of the study, that respondent would have been excluded from participating in the study.

The most crucial aspect of data collection was to avoid access to confidential information without prior consent of participants. Participants were never required to commit an act which might diminish self-respect or cause them to experience shame, embarrassment, or regret. Participants were never exposed to questions which might be experienced as stressful or upsetting or subjecting them to any form of deception. Data was kept securely and questionnaires were only accessible to the researcher and the research supervisor. If any documents were to be disposed of such as the questionnaires, the process would involve shredding such documents in a shredding machine.

3.12 Conclusion

The research study was triggered by high levels of unemployment in South Africa and sought to investigate whether university students perceived any factors that might

encourage or discourage them from starting their own businesses, given their exposure to entrepreneurship, education system, family and other influences. The research followed a survey design with quantitative data collected from the respondents. The design was based on the positivism paradigm where all phenomena were reduced to empirical indicators which represented the truth or reality. A questionnaire was the research instrument chosen to collect data from students of the University of KwaZulu-Natal at the Westville, Howard and Pietermaritzburg campuses.

A sample of 350 participants was targeted for the research and the sampling techniques involved simple and systematic random sampling. The simple random method involved administering questionnaires to students as they were out of their classrooms. The systematic random method targeted students during their lecture classes where the sampling interval technique was used. Data was collected using a structured questionnaire with largely closed ended questions. The analysis was done on SPSS version and year with the assistance of a statistician. The respondents answered all questions themselves to ensure validity. Other studies were reviewed and used as a measure of reliability in comparison to this research. All ethical issues were observed to ensure that the results of the study were not compromised. The following chapter deals with data analysis.

CHAPTER 4 DATA ANALYSIS

4.1 Introduction

The purpose of this chapter is to present the empirical findings in line with the six research objectives. The discussion will follow the same approach as contained in the research questionnaire. Statistical analyses performed were descriptive statistics. The first section of this chapter focuses on the findings of this study. There are two main sub-sections which are subsection 4.2.1 which presents personal information, and is followed by sub-section 4.2.2 which presents the descriptive analysis. The summary is presented in section 4.3. The following section presents the empirical findings.

4.2 Findings

4.2.1 Personal information

4.2.1.1 Age of respondents

Table 4.1 below shows that 42% of respondents were below the age of 20 years, 43% were between the ages of 20 and 22 years, 14% were between the ages of 23 and 35 years and only 1% were over the age of 36 years old.

Table 4.1: Age of respondents

Age (Years)	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage
Below 20	148	42.0	148	42.0
20 – 22	152	43.0	300	85.0
23 – 35	48	14.0	348	99.0
Over 36	2	1.0	350	100.0

4.2.1.2 Race of respondents

Table 4.2 shows that 71.4% of the respondents were African, 22% were Indian, 4.6% were Coloured while only 2% were White. The results indicated that the majority of the respondents were African.

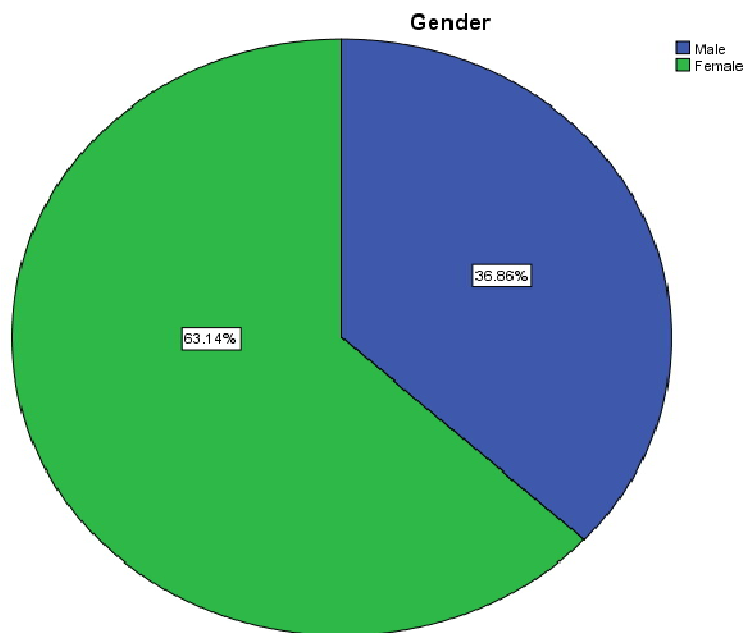
Table 4.2: Race of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
African	250	71.4	71.4	71.4
Indian	77	22.0	22.0	93.4
Coloured	16	4.6	4.6	98.0
White	7	2.0	2.0	100.0
Total	350	100.0	100.0	

4.2.1.3 Gender

Figure 4.1 below indicates that there were more female respondents who participated in this study than male respondents with 63% females and 37% males.

Figure 4.1: Gender of respondents



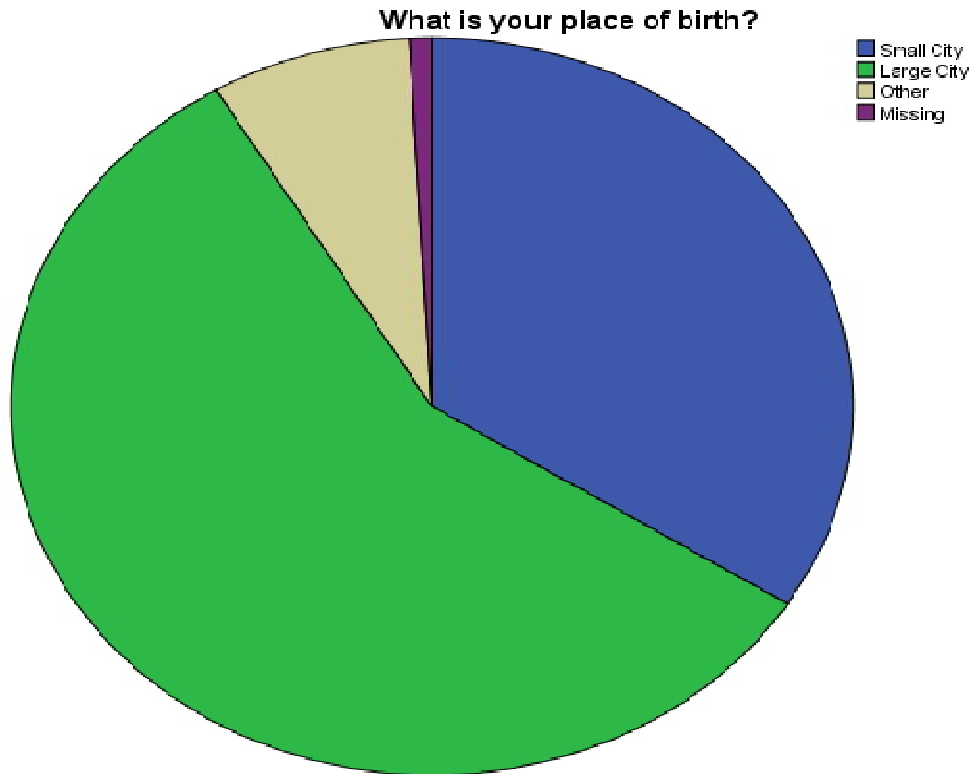
4.2.1.4 Place of birth

The place of birth had been categorised into two streams. First, the study looked at those respondents that were born inside and outside South Africa. Secondly, the study further broke the responses into small and large towns. The majority of the respondents (95%) were born in South Africa and only 5% were born outside of South Africa, mainly from other African countries as shown in table 4.3. Of the 350 respondents, 57% were born in large cities such as Durban, Cape Town and Johannesburg, 34% were born in small towns such as Empangeni, Eshowe, Nquthu, Mtubatuba, Vryheid, Newcastle, Dundee, Mthatha, and Butterworth; 8% did not give a clear response and less than 1% did not specify a town.

Table 4.3: Place of Birth

	Frequency	Percent	Valid Percent	Cumulative Percent
South Africa	329	94.0	95.4	95.4
Outside South Africa	16	4.6	4.6	100.0
Total	345	98.6	100.0	
Missing System	5	1.4		
Total	350	100.0		

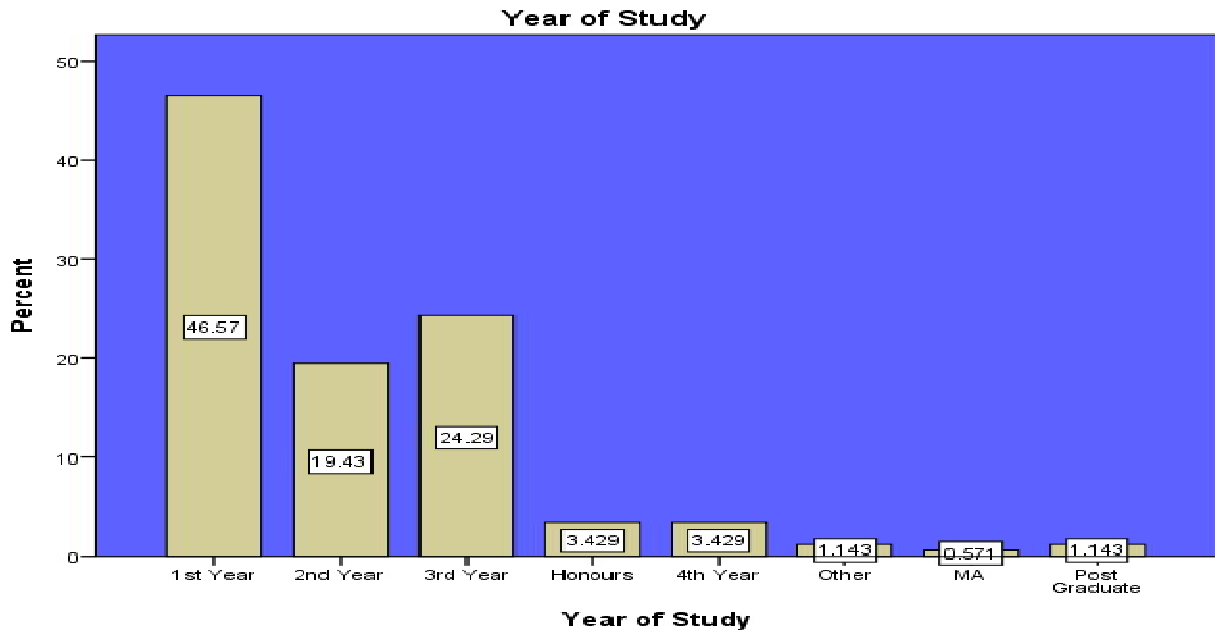
Figure 4.2: Place of birth by size of town



4.2.1.5 Year of study

Figure 4.3 shows that 47% of the respondents were first-year students, followed by 24% of third-year students and 19% of second-year students. The rest of the respondents were enrolled for post graduate studies with less than 1% doing a Master's degree.

Figure 4.3: Year of study



4.2.2 Descriptive analysis

4.2.2.1 Importance of entrepreneurship

The mean and the standard deviation of each of the 9 items assessing the importance of entrepreneurship are presented in Table 4.4 below. The importance of entrepreneurship items are ranked in a descending order of Mean scores. A higher number thus suggests that the respondents perceived the statement as true. In the same way, a low number represents disagreement and suggests that the statement is perceived to be false.

Table 4.4: Importance of entrepreneurship

Importance of entrepreneurship	N	Mean	Std. Deviation
Entrepreneurship is important for the economic growth of a country	350	4.67	.659
Entrepreneurship creates jobs	350	4.60	.694
Entrepreneurship alleviates poverty	340	4.19	.912
Entrepreneurship creates sustainable communities	345	4.08	.840
Tertiary education plays a key role in supporting entrepreneurship development	350	4.03	.992
In order for the South African economy to grow, more graduates should start their own businesses	348	3.84	.972
I think tertiary institutions are developing productive entrepreneurial behaviours, e.g. encouraging students to be creative and innovative	350	3.83	.997
Most people still see crime and rent-seeking as a means to earning a living	349	3.74	.988
South Africa does not have a shortage of entrepreneurs	350	2.40	1.168
Valid N (listwise)	332		

The results show that a greater percentage of respondents viewed entrepreneurship as very important for the economic growth of a country (94.9%) rather than those who disagreed (1.4%), with 3.7% of respondents unclear about the importance of entrepreneurship on economic growth of a country. A high mean of 4.67 was calculated for the statement “entrepreneurship is important for the economic growth of a country”. The majority of respondents were also in agreement with the following statements:

- Ninety four percent (94%) confirm that entrepreneurship creates jobs and this statement had a mean of 4.60,

- Eighty percent (80%) confirm that entrepreneurship alleviates poverty with a mean of 4.19,
- Seventy six percent (76%) state that entrepreneurship creates sustainable communities with a mean of 4.08,
- Seventy three percent (73%) state that tertiary education plays a key role in supporting entrepreneurship development with a mean of 4.03,
- Sixty eight percent (68%) believe that in order for the South African economy to grow, more graduates should start their own businesses with a mean of 3.84,
- Sixty six percent (66%) think that tertiary institutions are developing productive entrepreneurial behaviours, e.g. encouraging students to be creative and innovative with a mean of 3.83, and
- Sixty three percent (63%) believe that most people still see crime and rent-seeking as means to earning a living with a mean of 3.74,

The following statement scored the lowest ratings with a mean of 2.40, which indicated that the respondents were in disagreement. The statement was “South Africa does not have a shortage of entrepreneurs”.

4.2.2.2 Attitude towards entrepreneurship

The majority of respondents (73.6%) said they would rather determine their own salary than have job security. This statement was supported by 76% of the respondents who agreed with the statement that they would rather start their own businesses than be employees of existing businesses. These statements were supported by views that indicated that most successful people known to the respondents (70.7%) had started their own businesses, and those (81.7%) who believed that starting a business was the right choice for individuals with their educational qualifications. All these statements had a mean ranging from 3.29 to 3.55 which showed that respondents were in agreement with the statements. However, 52% of respondents noted that it was not only through self-employment that one could get rich. This statement had the lowest mean of 2.68 which indicated that respondents did not agree with the statement.

4.2.2.3 Likelihood of starting own business

Sixty six percent of respondents (66%) were confident that they would start a business at some point, which was in line with the attitudes of respondents to prefer to determine their own salaries than opt for job security. Just less than twenty three percent of respondents (22.9%) were not confident to start a business at any point. The majority of respondents (71%) said they would like to start a business after acquiring years of experience, given that 58% of respondents admitted that they were not innovative and creative. The fear of inadequate skills caused 57% of respondents to think that they would start a business only if they got rich. A significant majority (73%) still saw entrepreneurship as an option should they become unemployed.

4.2.2.4 Exposure to entrepreneurship

In Table 4.5 below, the majority of respondents (77%) said that their parents did not own a business, whilst 23% of respondents said their parents owned a business.

Table 4.5: Racial breakdown of respondents whose parents own a business

	Do your parents own a business?		Total
	Yes	No	
African	50	200	250
Indian	28	49	77
Coloured	1	15	16
White	2	5	7
Total	81	269	350

Asked whether they have had an opportunity of working at a small business, 55% of the respondents said they had worked at a small business and 45% of respondents had never worked at a small business as shown in the Table 4.6 below.

Table 4.6: Have you had an opportunity of working at a small business?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	192	54.9	54.9	54.9
No	158	45.1	45.1	100.0
Total	350	100.0	100.0	

Seventy nine percent (79%) of respondents mentioned that they had never started and ran their own business, whereas 21% had started and ran their own businesses as seen from the Table below.

Table 4.7: Have you ever started and run your own business?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	73	20.9	20.9	20.9
No	277	79.1	79.1	100.0
Total	350	100.0	100.0	

Seventy seven percent (77%) of respondents confirmed that there were entrepreneurs they knew personally whilst 23% said they did not know any entrepreneurs personally as shown in the Table below.

Table 4.8: Do you know any entrepreneurs personally?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	269	76.9	76.9	76.9
No	81	23.1	23.1	100.0
Total	350	100.0	100.0	

4.2.2.5 Other factors influencing the development of productive entrepreneurial behaviours

An overwhelming percentage of respondents (79%) believed that there was lack of government support, whilst 21% disagreed. Seventy eight percent of respondents (78%) thought banks would be reluctant to give loans to start up enterprises, whilst 22% disagreed. The majority of respondents (70%) mentioned that their parents would support them if they were to start a business, whereas 30% did not think so. Sixty nine percent of respondents (69%) indicated that it was too costly to register a business. Sixty seven percent of respondents (67%) felt that there was lack of information on what to do to start a business, whilst 23% disagreed. Sixty six percent of respondents (66%) thought that external conditions such as petrol prices and interest rates coupled with government rules and regulation would discourage them from starting a business.

Fifty nine percent of respondents (59%) felt that they lacked exposure to productive entrepreneurship and that it was too difficult to register a business. The same percentage of respondents was of the view that most students were inspired by unproductive and destructive entrepreneurial activities such as rent-seeking and crime. Fifty seven percent of respondents (57%) admitted that they did not know how to do a business plan. Fifty five percent of respondents (55%) indicated that there was inadequate training and education on productive entrepreneurship provided by the university. The same percentage of respondents felt that the role of entrepreneurs was not appreciated by the society. Fifty four percent of respondents (54%) mentioned that they did not lack a skill to manage a business.

Half of the respondents (50%) said they did not know how to look for opportunities to enable them to start a business; lacked motivation to start and run a business; and were reluctant to start a business as they did not possess any technical knowledge.

4.2.2.6 Initiatives by government, universities and private sector

Over a third of respondents (40%) were not aware of any government initiatives to support graduates to start their own businesses, 32% disagreed and 28% were neutral. Eighty percent of respondents (80%) felt that the government should promote productive entrepreneurship among students, for example, it could host business plan competitions so that winners could be rewarded for their innovative business ideas, 14% were neutral and 6% disagreed. The majority of respondents (87%) agreed that government should work with universities and other stakeholders to run campaigns that encourage graduates to start own businesses, 8% were neutral and 5% disagreed.

Seventy seven percent of respondents (77%) indicated that government should consider public policy to promote innovation and creativity among university graduates, 19% were neutral and only 4% disagreed. Eighty two percent of respondents (82%) said that the private sector can sponsor innovative ideas and encourage university students to consider self-employment as a career option, 12% were neutral and 6% disagreed. The majority of respondents (87%) agreed that universities that teach enterprise education should expose students to the theory and practice of starting and running a business, 9% were neutral and only 4% disagreed.

4.3 Conclusion

This chapter presented the research findings of the study which covered six broad objectives. The findings highlighted that the majority of respondents viewed entrepreneurship as a key vehicle to stimulate the economic growth, in the creation of jobs and reducing poverty. Tertiary institutions were seen as pioneers of cultivating productive entrepreneurial behaviours among university students. In terms of attitudes towards entrepreneurship, the results revealed that most respondents would rather determine their own salaries than settle for job security and that they would prefer to work for themselves as opposed to working for someone else. Despite being positive about starting their own businesses, respondents were mindful that it was not only

through self-employment that one could get rich. The attitudes towards entrepreneurship had inspired most respondents to be confident about the idea of starting a business once they had acquired sufficient work experience or should they become unemployed.

The findings further revealed that majority of respondents did not have parents that owned a business nor did they ever start and run a business themselves, even though they had worked at a small business. However, they knew someone who was an entrepreneur and their tertiary institution had exposed them to entrepreneurship. In spite of this exposure to entrepreneurship, respondents acknowledged that their tertiary institution had done little to encourage students to see entrepreneurship as a career option. The institution's shortcomings to inspire students to venture into entrepreneurship had resulted in very few students being known for running their own successful businesses.

Given their perception that there was lack of government support to graduates who wanted to start a business and that banks would be reluctant to give loans to start-ups, majority of respondents were confident that their parents would support them if they considered starting a business. The majority of respondents highlighted that various factors were hindering their prospects of them starting a business and these included lack of knowledge to know how to source opportunities, lack of understanding of how to develop a business plan and analyse financial projects, perception that registering a business was costly and difficult, the burden of dealing with government regulation and the inadequate training and education on productive entrepreneurship by the university. Majority of respondents indicated that they would like to see the government, the private sector and universities providing the necessary support to university students as a contribution to productive entrepreneurship.

The next chapter presents research findings and discussions of the study.

CHAPTER 5

RESEARCH FINDINGS AND DISCUSSION

5.1 Introduction

The purpose of this chapter is to present the research findings and discussion on the results of the study. There are two main sub-sections and the first sub-section 5.2.1 presents demographic data and discussion. This sub-section is followed by 5.2.2 which presents the statistical analysis and discussion. The conclusion is presented in section 5.3. The following section presents the findings and discussion.

5.2 Findings and discussion

5.2.1 Demographic data

The demographic data can be viewed as reliable and reflecting a normal frequency distribution. Responses from respondents showed that 85% of students who participated in the study were below the age of 22 years, over 71% were African, 63% were female students, 57% were born in large cities and 47% were doing their first-year studies. Even though the method of gathering data was convenience sampling which included requesting students to participate in the study whilst they had free time at the student cafeteria, some data from UKZN (2010) highlighted that there had been a decline in the number of Indian and White students who had been admitted to study at UKZN and an increase among the intake of African students. According to the UKZNOnline report, on average over the 2007 to 2010 period the intake of new students at UKZN constitutes 55 percent Africans, 32 percent Indians and 9 percent whites. Fifty eight percent of the student population was female with 45 percent stating that isiZulu was their home language and a similar percentage indicating that English was their home language. Despite the convenience sampling method, the findings showed that the data was aligned to the overall trends at the University of KwaZulu-Natal.

5.2.2 Descriptive analysis

5.2.2.1 Importance of entrepreneurship

The results revealed that a greater percentage of respondents viewed entrepreneurship as very important for the economic growth of a country (94.9%) rather than those who disagreed (1.4%), with 3.7% of respondents unclear about the importance of entrepreneurship on economic growth of a country. This finding was in line with the assessment of Glinskiene and Petuskiene (2011, p.186) when they concluded that entrepreneurship could have a big influence on the country's development by making stronger competitive abilities throughout knowledge and innovations; reducing unemployment and brain drain as the spread of entrepreneurs increases self-employment and creation of new enterprises; and stimulate regional development and raise the standards of living. However, the work of Van Stel *et al.* (2005, p.318) distinguished the role of entrepreneurship in influencing economic growth between developing and developed countries as they argued that entrepreneurship had a negative impact on GDP growth for developing countries, given a limited number of big businesses that could procure goods and services from small businesses. This seems to suggest that in the South African context, a negative impact of entrepreneurship on economic growth could be expected if Van Stel *et al.*'s (2005) model is valid.

A striking finding was the respondents' perception that most people saw crime and rent-seeking as means to earning a living. Yet, respondents disagreed with a statement that South Africa had a shortage of entrepreneurs, suggesting that the country had a reasonable number of entrepreneurs. Baumol (1990, p.894) cautioned that at times entrepreneurs could lead a parasitical existence that was damaging to the economy. The crucial question to ask would be whether South African entrepreneurs were contributing positively to the economy through constructive and innovative means or as Baumol put it were parasites and therefore damaging to the economy. The suggestion from the respondents was that, perhaps, not every entrepreneur in South Africa was earning a living through constructive and innovative ways.

The majority of respondents viewed the role of tertiary institutions as crucial in supporting the development of entrepreneurship with a mean of 4.03. This statement confirms results of a study by Co and Mitchell (2006, p.349) which stated that higher education institutions could help create a more entrepreneurial disposition among young people by instilling a clear understanding of risks and rewards, teaching opportunity seeking and recognition skills, as well as creation and “destruction” of enterprises. It is envisaged that the teaching of students to have the ability to recognise opportunities and be innovative to create and destroy businesses should contribute towards the notion of developing productive entrepreneurial behaviours.

5.2.2.2 Attitude towards entrepreneurship

The results showed that the respondents viewed entrepreneurship as important to job creation with a higher mean of 4.67 compared to an international study conducted by Davey, Plewa and Struwig (2011, p.344) which showed a mean of 4.26 for the same statement. The majority of respondents (73.6%) said they would rather determine their own salary than have job security. This statement was supported by 76% of the respondents who agreed with the statement that they would rather start their own businesses than be employees of existing business. Luthje and Franke (2002, p.136) observed that business college students and graduates often saw the founding of a business as an attractive alternative to wage or salary employment. The results were positive as they showed that students were thinking about the prospect of starting a business instead of confining themselves to seeking employment after graduation.

Starting up a new firm falls into the category of planned behaviour, as very few firms are started by accident (Autio, Keeley, Klofsten, Parker and Hay, 2001, p.146). According to Ajzen (1991, p.179), the intention to embark on any behaviour such as determining your own salary and starting a business could be predicted by three independent antecedents, which were the attitude towards the behaviour, subjective norms and perceived behavioural control. In this theory, students would need to have a positive attitude to start a business, the attitude would lead to intentions, and the intentions would result into the behaviour. Whilst the majority of respondents agreed that entrepreneurship seemed an

attractive alternative to salary employment, 52% of respondents acknowledged that it was not only through self-employment that one could get rich, indicating that employment could provide opportunities for salary earners to also make money and become rich.

Overall, the attitude of students towards entrepreneurship was encouraging, given the high levels of unemployment in South Africa. There is a need to exploit this positive energy, even though it might not translate into seeing students starting up enterprises after graduation. However, it serves as a building block towards developing entrepreneurial behaviours among university students.

5.2.2.3 Likelihood of starting an own business

The results showed that 66% of respondents viewed themselves as having their own business at some point in the future, which was in line with the attitudes of respondents to prefer to determine their own salaries than opt for job security. However, a survey conducted by Scheepers, Solomon and De Vries (2009, p.41) revealed that 61.3% of university students in South Africa were inclined to start their own business five years after graduation. These results are encouraging as they showed that there was a thinking process about starting a business, given that Stokes, Wilson and Mador (2010, p.7) citing Timmons and Spinelli (2003) defined entrepreneurship as a way of thinking, reasoning and acting that is opportunity based, holistic in approach and leadership balanced. The honourable thing that students could do would be action after thinking and reasoning about starting a business.

It was not striking that approximately twenty-three of respondents (22.9%) were not confident to start a business at any point, given that 58% of respondents admitted that they were not innovative and creative. Even though the majority of respondents (71%) said they would like to start a business after acquiring years of experience or should they become unemployed (73%), it became clear that the fear of inadequate skills and lack of support were factors that hindered their entrepreneurial intentions. Souitaris, Zerbinati and Al-Laham (2006, p.585) warned that a high number of students could have a positive intention to start a business due to the effect of an enthusiasm generated by their

business-plan project, but it would dissipate soon after, rather than of a serious intention to start a business. The low rate of converting an intention into behaviour was confirmed by Luthje and Franke (2002, p.137), citing Brown (1990), that between 2 and 2.5% of students started a business immediately after graduation.

Overall, students may have good intentions to start a business but may not do so immediately after graduation due to pressure to support their families, lack of skill to identify opportunities and run a business and lack of support from the private and public sectors. This provides an opportunity for universities to design appropriate curriculum or training courses that would address these skills shortages. Specifically, students could be expected to start and run a business as part of a training programme as opposed to giving them theory with the hope that it would inspire them to start a business in future.

5.2.2.4 Exposure to entrepreneurship

The results showed that the majority of respondents (77%) said that their parents did not own a business. In addition, seventy nine percent (79%) of respondents mentioned that they had never started and ran their own business. It seemed most respondents had never been exposed to entrepreneurship at family level. Yet, seventy seven percent (77%) of respondents confirmed that there were entrepreneurs they knew personally. This was encouraging as it meant that those entrepreneurs known to respondents could be used as role models or points of reference should an opportunity arrive for the respondents to start their own businesses. Pruett, Shinnar, Toney, Llopis and Fox (2008, p.574) stated that findings of a study on business ownership suggested that having a family member or close relative who was a business owner increased the likelihood of self-employment because these individuals could serve as role models. The influence of an entrepreneurial family was viewed as a strong predictor of entrepreneurial intentions (Ertuna and Gurel, 2011, p.395). In the South African context, this philosophy would take some time as large sections of the society still prefer employment because it provides them with job security rather than self-employment which is perceived as risky.

The other exposure to entrepreneurship came in the form of respondents having had an opportunity of working at a small business (55%). It was a positive sign that the majority of respondents have had an opportunity of working at a small business, which presented a great platform for them to gain experience which they could use in future should they decide to start their own enterprise. This is where the government, the private sector and universities could collaborate to ensure that students do their entrepreneurship practical assignments at a small business. The government and the private sector can provide funding for the operational costs of placing students within the care of small businesses. This approach can have mutual benefits for both the small enterprises and the students. South Africa has a large population of the informal businesses which are not registered and it is therefore difficult to estimate the numbers. Allocating students to work at an informal business is an area that has not been fully exploited in the country.

Sixty percent (60%) of respondents agreed that tertiary institutions played a key role in exposing them to entrepreneurship education, only 15% disagreed and 25% were neutral. This finding supports Basu and Virick (2008, p.84) when they concluded that prior exposure to entrepreneurship education has a positive effect on students' attitudes towards a career in entrepreneurship and on perceived behavioural control or entrepreneurial self-efficacy. The results of a survey conducted by Scheepers, Solomon and De Vries (2009, p39) agreed that the school and university systems seemed to stimulate students to consider entrepreneurship as a career option. This suggests that tertiary institutions play an important role in influencing students to consider entrepreneurship as a career option if they expose students to entrepreneurship education.

The results of the study revealed that 37% of respondents said the university encouraged its students to see entrepreneurship as a career option, 28% disagreed with this statement and 35% were neutral. It should be noted that not all students at the university were doing management subjects which had a component of entrepreneurship. In some instances, students were doing technical subjects such as engineering, mathematics and science which did not necessarily include areas of entrepreneurship. Overall, students were exposed to entrepreneurship through role models and the education system.

5.2.2.5 Other factors influencing the development of productive entrepreneurial behaviours

An overwhelming percentage of respondents (79%) believed that there was a lack of government support, and this factor made it difficult for respondents to consider starting a business. Seventy eight percent of respondents (78%) thought that banks would be reluctant to give loans to start-up enterprises, given that they might not have saved sufficient resources to cover for start-up capital.

Even though the majority of respondents (70%) mentioned that their parents would support them if they were to start a business, sixty nine percent of respondents (69%) indicated that it was too costly to register a business. There was a need for government to bring awareness regarding this area as there were several initiatives to make it easier and less costly to register a business. It was not surprising that sixty seven percent of respondents (67%) felt that there was lack of information on what to do to start a business, given that most government and private sector programmes were not targeting university students.

Sixty six percent of respondents (66%) thought that external conditions such as petrol prices and interest rates coupled with government rules and regulation would discourage them from starting a business. Klapper, Laeven and Rajan (2006, p.592) pointed out that a number of countries put in place regulations that made it more difficult to start a new firm. Therefore, aspiring entrepreneurs need all the assistance they can get to start successful businesses instead of perceived barriers to entry.

Fifty nine percent of respondents (59%) felt that they lacked exposure to productive entrepreneurship and that it was too difficult to register a business. The same percentage of respondents was of the view that most students were inspired by unproductive and destructive entrepreneurial activities such as rent-seeking and crime. This perception was not encouraging as it meant that the respondents were inspired by unproductive and destructive entrepreneurial behaviours instead of activities that benefit the entire society. This finding gives an opportunity for all players such as the university, the private sector

and government to speak with one voice when it comes to inspiring students to start businesses, given that fifty-five percent of respondents (55%) indicated that there was inadequate training and education on productive entrepreneurship provided by the university. Fifty-seven percent of respondents (57%) admitted that they did not know how to do a business plan and a further half of the respondents (50%) said they did not know how to look for opportunities to enable them to start a business. This finding pointed to a need for more programmes to be targeting both soft and hard skills of starting and running a business.

Overall, factors that could be considered to be beyond the control of respondents would need to be addressed as they posed a threat to the respondents' entrepreneurial attitudes and intentions. Key players identified to address these factors included the universities, the private sector and the government. These factors are the main drivers of converting positive entrepreneurial attitudes into entrepreneurial behaviours. In order to increase the conversion rate where students start a business immediately after graduation, these factors should be dealt with as a matter of urgency.

5.2.2.6 Initiatives by government, universities and private sector

Over a third of respondents (40%) were not aware of any government initiatives to support graduates to start their own businesses. This posed a need for more awareness campaigns to be directed at university students by the government. These could be carried out in collaboration with the universities. Eighty percent of respondents (80%) felt that the government should promote productive entrepreneurship among students, for example, it could host business plan competitions so that winners could be rewarded for their innovative business ideas. Given that students were inspired by unproductive behaviours that harm the society, it was important for key players to emphasise a country made up of productive entrepreneurs. Other than business competitions, there is a need to expose students to practical entrepreneurship where they would either start their own enterprises or work at a small business.

The majority of respondents (87%) agreed that government should work with universities and other stakeholders to run campaigns that encourage graduates to start own businesses. A further seventy-seven percent of respondents (77%) indicated that government should consider public policy to promote innovation and creativity among university graduates. The role of government was limited to initiating policy and programmes to promote the development of entrepreneurship. However, the respondents (82%) recognised that the private sector could sponsor innovative ideas and encourage university students to consider self-employment as a career option. Further, the respondents (87%) agreed that universities that teach enterprise education should expose students to the theory and practice of starting and running a business.

Overall, the role of each player was perceived to be instrumental as there was no one player that could develop productive entrepreneurial behaviours on their own without the assistance of the other players.

5.3 Conclusion

This chapter presented the research findings and the discussion of the study which covered six broad objectives. The findings highlighted that the majority of respondents viewed entrepreneurship as a key vehicle to stimulate the economic growth, in the creation of jobs and reducing poverty. This finding confirmed other research studies that had found that entrepreneurship was vital in job creation, reduction of poverty and the creation of sustainable communities. Tertiary institutions were seen as pioneers of cultivating productive entrepreneurial behaviours among university students, given a perception that the students were inspired by crime and rent-seeking behaviours.

The results revealed that most respondents would rather determine their own salaries than settle for job security and that they would prefer to work for themselves as opposed to working for someone else. Despite being positive about starting their own businesses, respondents were mindful that it was not only through self-employment that one could

get rich. The attitudes towards entrepreneurship had inspired most respondents to be confident about the idea of starting a business once they had acquired sufficient work experience or should they become unemployed. However, the reality was that very few graduates start and run a business after graduation due to social and economic pressures. The findings further revealed that majority of respondents did not have parents that owned a business nor did they ever start and run a business themselves, even though they had worked at a small business. However, they knew someone who was an entrepreneur and their tertiary institution had exposed them to entrepreneurship. In spite of this exposure to entrepreneurship, respondents acknowledged that their tertiary institution had done little to encourage students to see entrepreneurship as a career option. The institution's shortcomings to inspire students to venture into entrepreneurship had resulted in very few students being known for running their own successful businesses.

Despite perceptions that there was a lack of government support to graduates who wanted to start a business and that banks would be reluctant to give loans to start-ups, the majority of respondents were confident that their parents would support them if they considered starting a business. The majority of respondents highlighted that various factors were hindering their prospects of them starting a business and these included lack of knowledge to know how to source opportunities, lack of understanding of how to develop a business plan and analyse financial projects, perception that registering a business was costly and difficult, the burden of dealing with government regulation and the inadequate training and education on productive entrepreneurship by the university. The majority of respondents indicated that they would like to see the government, the private sector and universities providing the necessary support to university students as a contribution to productive entrepreneurship.

Overall, factors that influenced the development of productive entrepreneurial behaviours were both internal and external in nature. Therefore, there was a need for key players to focus on influencing these factors positively so that university students could think about entrepreneurship, reason on which opportunities to explore and take an action. The next chapter presents conclusion and recommendations.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the conclusions and provides recommendations relating to factors influencing the development of productive entrepreneurial behaviours among university students.

6.2 Conclusions of the empirical findings and literature review

According to Peneder (2009, p.77) entrepreneurship is one of the concepts in economics that are difficult to provide a precise meaning to, given its multiplicity of functions and involvement of various specialists. However, a definition of entrepreneurship in line with the objectives of this study is the one advanced by Stokes, Wilson and Mador (2010, p.7) citing Timmons and Spinelli (2003); they defined entrepreneurship as a way of thinking, reasoning and acting that is opportunity based, holistic in approach and leadership balanced. The results of this study indicated that there was a certain level of thinking and reasoning about entrepreneurship, even though that might not translate into immediate action based from an identified opportunity. A need was identified to increase the level of thinking through exposure to entrepreneurship using internal factors such as role models and the education system as well as external factors such as government policy and private sector initiatives.

The types of entrepreneurs produced by a country were examined using Baumol's definition. Baumol (1990, p.898) indicated that there were three types of entrepreneurs and these were productive, unproductive and destructive. A recommendation is that South Africa should be at the forefront when it comes to the creation of productive entrepreneurs as this would benefit the entire society, given that, unproductive and destructive entrepreneurial activities such as crime and rent-seeking are harmful to the society.

6.2.1 The importance of entrepreneurship in the South African economy

Scheepers, Solomon and De Vries (2009, p.9) stated that entrepreneurship was typically associated with innovation, job creation, venture creation, rejuvenation of existing business and accelerating national economic growth. The results showed that a greater percentage of respondents viewed entrepreneurship as very important for the economic growth of a country (94.9%). As such, respondents recognised that South Africa did not have a shortage of entrepreneurs. At the same time, respondents perceived that most people saw crime and rent-seeking as means to earning a living. This seemed to suggest that the respondents were exposed to a reasonable number of entrepreneurs that would be classified by Baumol (1990, p.894) as unproductive and destructive, given their parasitical activities that were damaging to the economy.

A recommendation is that every South African learner should be exposed to entrepreneurship at basic education level. This will ensure that learners grow up thinking and reasoning about entrepreneurship, and this thinking could propel them to put their ideas into action. By the time learners reach a tertiary institution, some of them would have started a business or would be considering starting a business after graduation. The majority of respondents viewed the role of tertiary institutions as crucial in supporting the development of entrepreneurship. This statement confirmed results of a study by Co and Mitchell (2006, p.349) which stated that higher education institutions could help create a more entrepreneurial disposition among young people by instilling a clear understanding of risks and rewards, teaching opportunity seeking and recognition skills, as well as creation and “destruction” of enterprises. The education system has an important role to play in cultivating a mindset of productive entrepreneurial behaviours among students so that they can recognise opportunities and be innovative to create and destroy businesses.

6.2.2 Attitudes towards entrepreneurship

The intention to embark on any behaviour such as determining your own salary and starting a business could be predicted by three independent antecedents, which are the

attitude towards the behaviour, subjective norms and perceived behavioural control (Ajzen, 1991, p.179). In this theory, students would need to have a positive attitude to start a business, the attitude would lead to intentions, and the intentions would result into the behaviour. As a starting point, the results showed that the majority of respondents had a positive attitude towards entrepreneurship with most of them expressing preference for self-employment and determining own salary rather than become employees and earning a salary. A positive attitude towards entrepreneurship is a step in the right direction, especially that unemployment rates amongst university graduates are increasing. It is encouraging that a significant number of graduates perceive entrepreneurship as a career option. It could be envisaged that in the medium to long term, these aspiring entrepreneurs would create wealth for themselves and possibly contribute to reduce the high unemployment levels. The society can also benefit if the new entrepreneurs would serve as role models for other aspiring graduate entrepreneurs.

The education system was seen as crucial to the development of positive attitudes because of its role to develop critical thinking skills, the ability to formulate good questions and to know where to find answers (Feinstein, Mann and Corsun, 2002, p.739). University students have an opportunity to acquire critical thinking skills which should enable them to reason on opportunities and ultimately act on those opportunities. The teaching of skills should be specific towards entrepreneurship so that graduates would have a clear goal after completing studies. Based from a study conducted by Chenube, Saidu, Omumu and Omomoyesan (2011, p.426) which showed that university graduates in Nigeria were exposed to entrepreneurship because of a government directive, there was a sense that all university students should be exposed to the field of entrepreneurship irrespective of their disciplines. For example, law or engineering graduates may want to start a law or engineering business after gaining valuable practical experience. If these students were prepared at the right time to consider entrepreneurship as a career option, this would assist them a great deal. Just over half of the respondents were correct that it was not only through self-employment that one could get rich. Employment continued to provide work opportunities to most graduates. However, increasing unemployment and

other economic difficulties create an avenue for university students to adopt a positive attitude towards entrepreneurship.

6.2.3 Likelihood of starting an own business

In terms of Ajzen's theory, it was pointed out that a positive attitude was needed for a certain behaviour to be realised, and then the attitude would lead to intentions. Over and above the positive attitude showed by respondents, sixty-six percent of respondents (66%) were confident that they would start a business at some point. This group of respondents did not only have a positive attitude but they took a step further by expressing an intention to start a business at some point. This positive likelihood is encouraging, given that not all students were exposed to entrepreneurship at family, school or university level. It could be easier for them to dismiss the idea of starting a business at some point if employment opportunities were guaranteed. The reality is that the labour market does not absorb all university graduates. Hence, the rate of unemployed graduates is on the increase.

A caution was that a high number of students could have a positive intention to start a business due to the effect of an enthusiasm generated by their business-plan academic project, but it would dissipate soon after, rather than be translated into starting a business (Souitaris *et al.*, 2006, p.585). The low rate of converting an intention into behaviour was confirmed by Luthje and Franke (2002, p.137), citing Brown (1990), that between 2 and 2.5% of students started a business immediately after graduation. Given the increasing rates of graduate unemployment, it was not surprising that the conversion rates were low because the respondents in this study admitted that a lack of skills and other external factors were likely to hinder their intentions to start a business. The fear amongst students was rather to seek employment first as it would be easier to go through job interviews rather than face the challenges of starting a business. This highlights a need for enterprise education to empower students with appropriate skills that would enable them to consider self-employment sooner than later. In fact, government and the private sector should also make it easy for aspiring graduate entrepreneurs to access support that would assist them

to start a business immediately after graduation. Therefore, these initiatives would subsequently increase the conversion rate of intentions into business start-ups.

6.2.4 Exposure to entrepreneurship

The results showed that the majority of respondents said that their parents did not own a business, whilst few respondents said their parents owned a business. Over half of the respondents had worked at a small business which provided a positive exposure to entrepreneurship and made up for the group whose parents never owned a business. Even though most respondents had never run a business of their own, they knew entrepreneurs at a personal level. More role models need to showcase their productive entrepreneurial activities to their communities as a way of inspiring learners and students to look up to them. Despite the fact that most respondents agreed that their tertiary institution played a key role in exposing them to entrepreneurship education, it was not encouraging that over a third of respondents said their university encouraged its students to see entrepreneurship as a career option. The recommendation to see universities teaching entrepreneurship across all disciplines as instrumental on students' attitudes toward a career in entrepreneurship is confirmed by Scheepers *et al.*' survey (2009, p39) whose results showed that the school and university systems seemed to stimulate students to think about entrepreneurship as a career option.

6.2.5 The factors influencing the development of productive entrepreneurial behaviours

Over half of the respondents believed that there was lack of government support; banks would be reluctant to give loans to start-up enterprises; it was too costly to register a business; there was lack of information on what to do to start a business; that they lacked exposure to productive entrepreneurship; it was too difficult to register a business; they did not know how to do a business plan; that most students were inspired by unproductive and destructive entrepreneurial activities such as rent-seeking and crime; there was inadequate training and education on productive entrepreneurship provided by the university; the role of entrepreneurs was not appreciated by the society; and that

external conditions such as petrol prices and interest rates coupled with government rules and regulation would discourage them from starting a business. Given their limited experience of having had an opportunity to start and run a business, most respondents were honest about the prospect of starting a business immediately after graduating. This is where Ajzen's theory would finally see intentions resulting into the behaviour. However, the negative factors do not mean students should not be exposed to entrepreneurship. This highlights that the process of developing productive entrepreneurial behaviours is not easy.

6.2.6 Initiatives by government, universities and the private sector

Over a third of respondents were not aware of any government initiatives to support graduates to start their own businesses. Most respondents felt that the government should promote productive entrepreneurship among students, for example, it could host business plan competitions so that winners could be rewarded for their innovative business ideas. The majority of respondents agreed that government should work with universities and other stakeholders to run campaigns that encourage graduates to start own businesses. These parties could use mass media and in particular social networks as it was most accessible to university students to market the promotions and campaigns.

Seventy-seven percent of respondents indicated that government should consider public policy to promote innovation and creativity among university graduates. Eighty-two percent of respondents said that the private sector can sponsor innovative ideas and encourage university students to consider self-employment as a career option. The majority of respondents agreed that universities that teach enterprise education should expose students to the theory and practice of starting and running a business. Overall, the role of each player was perceived to be instrumental as there was no one player that could develop productive entrepreneurial behaviours on their own.

6.3 Achievement of the objectives

The following objectives of the study were identified and achieved in this study:

- Determine the awareness and understanding of the importance of entrepreneurship as a vehicle for earning a living. Chapters 4 and 5 presented the results of this objective that the majority of respondents perceived entrepreneurship as very important for the economy. This objective was achieved by asking respondents to state whether they strongly disagreed, disagreed, neutral, agreed or strongly agreed with statements confirming the importance of entrepreneurship with regard to the economic growth, job creation, poverty reduction, creation of sustainable communities, the key role of tertiary education, the creation of productive entrepreneurs and others. The results showed that the majority of respondents strongly agreed with these statements that entrepreneurship was important and that there was no shortage of entrepreneurs in South Africa. This objective was achieved as not only students who studied management courses understood the importance of entrepreneurship in an economy but students across all disciplines were in agreement.
- Assess the attitudes of students towards starting a business. Chapters 4 and 5 recorded the results of this objective that overall the students had a positive attitude towards entrepreneurship. Respondents were asked to state whether they strongly disagreed, disagreed, neutral, agreed or strongly disagreed with statements related to the attitude of students towards entrepreneurship. The results showed that most respondents had a positive attitude towards entrepreneurship as they would prefer to start own business rather than be employed and also to determine their own salary rather than settle for job security. The objective was achieved as a determination was established that students had a positive attitude towards entrepreneurship. This finding was viewed as encouraging given that the unemployment rates were increasing in South Africa.
- Assess the students' likelihood to consider starting a business after graduation. Chapters 4 and 5 recorded the results of this objective that the students would not

start a business immediately after graduation but that they would consider starting a business after gaining work experience and or if they became unemployed. The respondents were asked to state how confident they were to start a business after graduation. Very few students were confident that they would start a business immediately after graduation. The majority of respondents thought they would start a business after gaining work experience or when they were rich or some said when they became jobless. The objective was met that it was not likely to start a business immediately after graduation given the respondents were faced with several challenges or factors such as lack of skill to manage a business, regulatory constraints, lack of support from government, lack or no support from financial institutions and huge costs related to registering and starting a business. These fears were confirmed by an international study which revealed that a conversion rate from intending to start a business and actually starting one was between 2% and 2.5%. This showed the low conversion rates were common amongst all nations and that South Africa was not unique.

- Investigate the levels of exposure of students to entrepreneurship. Chapters 4 and 5 recorded this objective that the majority of respondents did not have parents who owned a business. The prominent ways in which they became aware of entrepreneurship were through knowing entrepreneurs personally and whilst studying at university. This objective was met because respondents indicated that they might not have been exposed to entrepreneurship at a young age, as most of their parents did not own a business, but as they grew older they understood entrepreneurship through coming into contact with entrepreneurs and also studying at a tertiary institution. This showed the importance of the type of role models young people looked up to as well as the role of the education system in cultivating the culture of entrepreneurship amongst learners and students.
- Determine the perceived factors that enhanced or inhibited the development of entrepreneurial behaviour. Chapters 4 and 5 recorded the results of this objective that internal factors such as experience, skills, knowledge and external factors such as government regulation and the economic climate discouraged the

respondents from starting a business. This objective was achieved because the respondents indicated that they lacked business skills and experience that would have enabled them to start and run a business successfully. This showed that if respondents were provided with the appropriate entrepreneurial skills, the probability that they would start a business immediately after graduation would be increased. The government would have a role to deal with factors that were beyond the respondents' control such as government regulation and economic conditions.

- Explore government, private sector and university initiatives to support potential graduate entrepreneurs. Chapter 6 recorded the results of this objective under the recommendations section. Various suggestions were indicated by the respondents on initiatives that could be driven by each party. This objective was achieved because the respondents acknowledged that the universities had not played a significant role in encouraging its students to consider entrepreneurship as a career option. They stated that government and the private sector needed to develop clear and specific programmes for aspiring graduate entrepreneurs.

6.4 Recommendations

6.4.1 Universities

- Universities should design appropriate content for their entrepreneurship courses which should emphasise the element of productive entrepreneurship and its positive benefits to the society. A review of current entrepreneurship courses should be undertaken to determine successes, failures and gaps. This should also include a review of international perspectives on appropriate entrepreneurship content. The investigation and analysis could be carried out under the auspices of the Forum for Enterprise Development Centres at Higher Education Institutions (FEDCI), which is a national university body to develop the country's universities as entrepreneurship and innovation centres.

- The method of teaching should also be investigated as theory alone does not seem to inspire students to eventually start a business. Perhaps, the method could assist the conversion rate from aspiring entrepreneurs to real entrepreneurs. One method is to get students to start a business by investing a R100 in a business venture of their choice and expect them to double that investment to R200 within a day. Another method is to assign students to small, micro and medium enterprises (including street traders) to assist those businesses to get new clients and increase their turnover by 25% within a period of six months.
- Universities can also explore the feasibility of teaching entrepreneurship across all disciplines as this will assist aspiring entrepreneurs to find it easy to start a business earlier in their career lives rather than delay starting a business. This could be done by teaching one module of entrepreneurship from first year to third year especially to disciplines such as science, information technology, law, engineering and medicine. In the first year, students can be taught the theory of entrepreneurship, in their second year they can be assigned to micro enterprises as a way of applying the theory, and in the third year they can start and run their businesses practically and be assessed using the turnover indicator.
- Universities should partner with other parties to pioneer programmes targeting potential graduate entrepreneurs. This could be done by setting up university incubators to teach their students to start and run businesses practically. The university incubators could partner with the Department of Trade and Industry to provide co-funding but they could also link up with private sector incubators such as Shanduka Black Umbrellas. Depending on the philosophy of a university, existing small enterprises could also be enrolled in a university incubator as a nerve centre of best practice on enterprise development.

6.4.2 Government

- The government should play a key role in exposing learners to entrepreneurship at a primary school level. In as much as learners are taught social science from grade four, enterprise education could also be started from the same grade over and above the entrepreneurship days that are normally run by certain schools. It is envisaged that learners would grow assessing their capabilities and by the time they get to tertiary institution they would be well informed about business opportunities. This will also increase the likelihood of starting a business immediately after graduation. At present, the Department of Basic Education is contemplating this idea but it would need the development of a new curriculum for learners. Over and above the new curriculum, the Department would also need to recruit subject teachers or the existing teachers would need to be trained on how to deliver the enterprise education subjects.
- The government should run campaigns that encourage graduates to start own businesses. These could be in the form of business plan competitions, incentive schemes for start-up innovations and celebrate successful entrepreneurs. At present, there is no business competition that targets university graduates. Perhaps, the Department of Trade and Industry together with its agency, the Small Enterprise Development Agency, could design a competition for university graduates to submit a business idea and after adjudication winners could receive prizes that could be invested in the proposed new ventures. The competition should be national and its entrants should be third year students.
- The government should develop an entrepreneurship policy that would set the scene for what types of entrepreneurs are needed by the South African economy, in particular the policy should promote productive entrepreneurship; how should entrepreneurship be promoted; who are the key players in the entrepreneurship eco-system; and what roles should each of the parties play. At present, the Department of Trade and Industry has a policy for existing small businesses

called the Integrated Strategy for the promotion of small enterprises and entrepreneurship. This policy looks at three pillars which are access to markets, reducing regulatory constraints and access to finance and non-financial support. However, this policy does not address the development of new, innovative and high impact businesses. The Department should develop the proposed policy, given that high impact small businesses are viewed as a vehicle for job creation.

6.4.3 Private sector

- The private sector needs to showcase its best entrepreneurs to the nation. Likewise, role models should inspire their communities with the support of other players such as government and universities at their local level. The business chambers or associations should take it upon themselves to showcase successful businesses. In cases where associations do not exist or experience their own organisational challenges, universities or local municipalities should assist a community to identify its successful business role models and use them as agents of change or as champions of promoting entrepreneurship in their local areas.
- The private sector should have specific programmes targeting potential graduate entrepreneurs and these could be in the form of business idea competitions, scholarships and mentoring programmes. A private sector organisation that has a good model of entrepreneurship for aspiring graduate entrepreneurs is Allan Gray Orbis Foundation. The Foundation provides full financial support to pursue secondary or tertiary studies at selected schools or universities. These opportunities, known as the Allan Gray Scholarship and Fellowship, explore entrepreneurial mindset and leadership development building on the base of a solid academic platform. These interventions, focusing on education, personal development, entrepreneurial and leadership growth, work experience and mentoring, are the first stages in a longer term systematic approach to fostering high impact individuals (Allan Gray Orbis Foundation, 2013). It is suggested that other private sector organisations that offer bursaries should consider empowering

their beneficiaries with focused and structured mentoring so that they become entrepreneurial leaders in future. Some companies tend to expect their bursary holders to work for them after graduation; however, it is suggested that companies should consider to assist their beneficiaries to set up new enterprises as their own suppliers or to link them up to their existing suppliers as this could serve as a growth strategy for the company but also providing entrepreneurial opportunities to their bursary holders.

6.5 Significance of the findings

The research findings confirmed results of previous studies as shown in the literature review. The findings are significant because of the potential to contribute to the public policy discourse on entrepreneurship, private sector initiatives on supporting graduate entrepreneurs and the role of universities in designing appropriate entrepreneurship courses and the method of teaching the content. The public sector can take the lesson of exposing entrepreneurship at a school level rather than leaving the task to others to accomplish. At present, learners complete high school education with limited knowledge and understanding entrepreneurship. By the time they reach tertiary education, they are looking forward to employment. It does not come as a surprise that very few graduates start a business immediately after graduation. In order to change this situation, things need to be done differently by way of implementing the recommendations made in this study. The private sector can promote productive entrepreneurship by showcasing its best entrepreneurs as role models. The universities can master the art of designing appropriate entrepreneurship courses and the method of teaching. The significance of implementing the findings and recommendations would be the wealth created by high impact and productive entrepreneurs, resulting in the creation of jobs and reduction of poverty.

6.6 Limitations of the study

The study had some limitations. The first limitation was that the scope of the study focused on students from the University of KwaZulu-Natal only. It was envisaged that one or two other universities would be included in the study, but the process of granting

permission was cumbersome as the researcher had time constraints. Limited financial resources also restrained the researcher from conducting the study at other universities. Therefore the process was abandoned. The results do not purport to generalise on behalf of all South African university students.

The second limitation was the lower number of respondents who were White and Coloured. Of the 350 respondents who participated in this study, only 7 were White and 16 were Coloured. The students were requested to participate in the study whilst they sat inside or outside the cafeteria. There were not many White and Coloured students available at the cafeteria. Some of those who did not want to participate mentioned that they were busy preparing an assignment or a test. This reason was accepted as participants were participating voluntarily. In the earlier chapters of this study it was mentioned that the University recorded an increase in the number of African students enrolling at the institution in the last few years.

The third limitation was the amount of time consumed by requesting students to participate in the study, in particular at the Westville campus. The original plan was to request specific Schools to allow the researcher to administer the questionnaires after lectures. Unfortunately, this plan was not successful and it was therefore abandoned. The researcher settled for the method of asking students individually to participate in the survey. This method took longer than anticipated as the researcher kept coming back to the Westville campus in order to reach the target set for the sample size.

6.7 Need for further research

The results point out that students perceive entrepreneurship to be very important for economic growth of any country. Starting a business is preferred rather than being an employee, yet students are hesitant to start a business immediately after graduation due to limited or no experience in running a business. Further research can be explored in the conversion rate between students expressing a need to start a business and eventually starting a business. A second research area that could also be investigated is the extent to

which universities teach productive entrepreneurial skills so that the types of entrepreneurs created are those that benefit the entire society. The last research area is to conduct the same research across universities in South Africa and compare the results with international studies.

6.8 Summary

This chapter focused on the conclusions and recommendations of the study. The findings highlighted that the majority of respondents viewed entrepreneurship as a key vehicle to stimulate the economic growth, job creation and reducing poverty. Tertiary institutions were seen as pioneers of cultivating productive entrepreneurial behaviours among university students. In terms of attitudes towards entrepreneurship, the results revealed that most respondents would rather determine their own salaries than settle for job security and that they would prefer to work for themselves as opposed to working for someone else. Despite being positive about starting their own businesses, respondents were cautious that they would not be able to start a business immediately after graduating because they lacked skills and experience of running a business. The findings further revealed that majority of respondents did not have parents that owned a business nor did they ever start and run a business themselves, even though they had worked at a small business. However, they knew someone who was an entrepreneur and their tertiary institution had exposed them to entrepreneurship. In spite of this exposure to entrepreneurship, respondents acknowledged that their tertiary institution had done little to encourage students to see entrepreneurship as a career option.

Given their perception that there was a lack of government support to graduates who wanted to start a business and that banks would be reluctant to give loans to start-ups, the majority of respondents were confident that their parents would support them if they considered starting a business. However, respondents highlighted that various factors could hinder their prospects of starting a business and these included lack of knowledge to know how to source opportunities, lack of understanding of how to develop a business plan and analyse financial projects, perception that registering a business was costly and

difficult, the burden of dealing with government regulation and the inadequate training and education on productive entrepreneurship by the university. The majority of respondents indicated that they would like to see the government, the private sector and universities providing the necessary support to university students as a contribution to productive entrepreneurship.

The findings of this study had shown that despite fewer respondents demonstrating a positive intention to start a business immediately after graduation, it was encouraging to note the Forum of Enterprise Development Centres in Higher Education Institutions (FEDCI)'s commitment to look in the issue of entrepreneurship curriculum for tertiary institutions at its launch in May 2013. This would increase the number of university students exposed to entrepreneurship, resulting in a mindset shift which is needed to develop more productive entrepreneurs for South Africa. The work of FEDCI could influence other stakeholders such as the Department of Trade and Industry and private sector organisations to design relevant programmes for aspiring graduate entrepreneurs to become productive entrepreneurial leaders. South Africa would become an entrepreneurial society where new innovations spring into new ventures. These new ventures would create wealth for themselves and end up creating jobs for others and eventually reducing poverty, which is the overall vision of government.

REFERENCE LIST

- Allan Gray Orbis Foundation. (2013). Investing in a long term legacy of greatness. [Online]. Available from <http://www.allangrayorbis.org> [Accessed 11 September 2013].
- Acs, Z.J. (2007). *How is Entrepreneurship Good for Economic Growth?* Paper delivered at the 25th Economic Conference of Progress Foundation: George Mason University.
- Acs, Z.J. & Szerb, L. (2006). Entrepreneurship, Economic Growth and Public Policy. *Small Business Economics*, 28: 109-122.
- Ajzen, I. (1991). The theory of planned behaviour, *Organizational Behaviour and Human Decision Processes*, 50: 179-211.
- Alstete, J.W. (2002). On becoming an entrepreneur: an evolving typology. *International Journal of Entrepreneurial Behaviour & Research*, 8(4): 222-234.
- Arenius, P. & Minniti, M. (2005). Perceptual Variables and Nascent Entrepreneurship. *Small Business Economics*, 24: 233-247.
- Audretsch, D.B., Carree, M.A. & Thurik, A.R. (2002). *Does entrepreneurship reduce unemployment?* Amsterdam: Tinbergen Institute Discussion Paper.
- Autio, E., Keeley, R.H., Klofsten, M., Parker, G.G.C. & Hay, M. (2001). Entrepreneurial Intent among Students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, 2(2): 145–160.
- Babbie, E. & Mouton, J. (2002). *The practice of social research*. Cape Town: Oxford University Press.
- Baum, J.R. & Locke, E.A. (2004). The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Venture Growth. *Journal of Applied Psychology*, 89(4): 587-598.

Baumol, W.J. (1968). Entrepreneurship in Economic Theory. *The American Economic Review*, 58 (2): 64-71.

Baumol, W.J. (1990). Entrepreneurship: Productive, Unproductive and Destructive. *The Journal of Political Economy*, 98(5): 893-921.

Baumol, W.J. & Strom, R.J. (2007). Entrepreneurship and Economic Growth. *Strategic Entrepreneurship Journal*, 1: 233-237.

Basu, A. and Virick, M. (2008), "Assessing entrepreneurial intentions amongst students: a comparative study", paper presented at 12th Annual Meeting of the National Collegiate Inventors and Innovators Alliance. Dallas, TX.

Bell-Rose, S. & Payzant, T. (2008). The case for entrepreneurship education. *Education Week*, 27(45): 24-25.

Bessant, J. & Tidd, J. (2011). *Innovation and Entrepreneurship*. West Sussex (UK), John Wiley & Sons Ltd.

Bless, C. & Higson-Smith, C. (1995). *Fundamentals of social research and methods: An African Perspective*. Cape Town, Juta & Co Ltd.

Bloodgood, J.M., Sapienza, H.J. & Carsrud, A.L. (1995). Advances in Entrepreneurship, Firm Emergence, and Growth. *JAI Press Inc*, 2: 123-144.

Brown, R. (1990). Encouraging enterprise: Britain's graduate enterprise program. *Journal of Small Business Management*, 28(4): 71-77.

Carsrud, A. & Brännback, M. (2011). Entrepreneurial Motivations: What Do We Still Need to Know? *Journal of Small Business Management*, 49(1): 9-26.

Chenube, O.O., Saidu, R.F., Omumu, F.F. & Omomoyesan, M.B. (2011). Assessing the entrepreneurial inclination in Delta State. *IFE Psychologia: An International Journal*, 19(2): 426-436.

- Chua, B.L. (2003). *Research Report: Entrepreneurship in Hong Kong: Revitalizing Entrepreneurship*. New York: The Manfield Center for Pacific Affairs.
- Co, M.J. & Mitchell, B. (2006). Entrepreneurship education in South Africa: a nationwide survey. *Education and Training*, 48(5): 348-59.
- Cooper, D.R. & Schindler, P.S. (2008). *Business Research Methods*. New York, McGraw-Hill Companies.
- Coyne, C.J. & Leeson, P.T. (2004). The Plight of Underdeveloped Countries. *Cato Journal*, 24(3): 235-249.
- Cramer, J.S., Hartog, J., Jonker, N. & Van Praag, C.M. (2002). Low risk aversion encourages the choice for entrepreneurship: an empirical test of a truism. *Journal of Economic Behavior & Organization*, 48: 29-36.
- Davey, T., Plewa, C. & Struwig, M. (2011). Entrepreneurship perceptions and career intentions of international students. *Education and Training*, 53(5): 335-352.
- Deakins, D. (1996). *Entrepreneurship and small firms*. Berkshire (UK), the McGraw-Hill Companies.
- DiPrete, T.A., Goux, D. & Maurin, E. (2002). Internal Labor Markets and Earnings Trajectories in the Post-Fordist Economy: An Analysis of Recent Trends. *Social Science Research*, 31: 175-196.
- Dhliwayo, S. (2008). Experiential learning in entrepreneurship education: A prospective model for South African tertiary institutions. *Education and Training*, 50(4): 329-340.
- Driver, A., Wood, E., Segal, N. & Herrington, M. (2001). *Global Entrepreneurship Monitor: South African executive report*. Cape Town: University of Cape Town, Graduate School of Business.

- Eiselen, R., Uys, T. & Potgieter, N. (2005). *Analysing survey data using SPSS13: A workbook*. University of Johannesburg.
- Ertuna, Z.I. & Gurel, E. (2011). The moderating role of higher education on entrepreneurship. *Education and Training*, 53(5): 387-402.
- Fayolle, A., Gailly, B. & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. *Journal of European Industrial Training*, 30(9): 701-720.
- Fayolle, A. & Klandt, H. (2006). *International Entrepreneurship Education: Issues and Newness*. Cheltenham: Edward Elgar.
- Farrington, S., Gray, B. & Sharp, G. (2011). Perceptions of an entrepreneurial career: Do small business owners and university students concur? *Management Dynamics*, 20(2): 2-17.
- Feinstein, A. H., Mann, S. & Corsun, D.L. (2002). Charting the Experiential Territory: Clarifying Definitions and Uses of Computer Simulation, Games, and Role Play. *Journal of Management Development*, 21(10), 732-744.
- Foxcroft, M.L., Wood, E., Kew, J., Herrington, M. & Segal, N. (2002). *Global Entrepreneurship Monitor: South African Executive Report*. Cape Town: University of Cape Town, Graduate School of Business.
- Garavan, T.N. & O’Cinneide, B. (1994). Entrepreneurship Education and Training Programmes: A Review and Evaluation – Part 1. *Journal of European Industrial Training*, 18(8): 3-12.
- Gerber-Nel, C., Nel, D. & Kotze, T. (2005). *Marketing research*. Claremont: New Africa Books (Pty) Ltd.
- Gilbert, B.A., Audretsch, D.B. & McDougall, P.P. (2004). The Emergence of Entrepreneurship Policy. *Small Business Economics*, 22(3-4): 313-323.

Glancey, K.S. & McQuaid, W. (2000). *Entrepreneurial Economics*. London, Macmillan Press Ltd.

Glinskiene, R. & Petuskiene, E. (2011). The incentive of entrepreneurship as the force of country's economic development. *Economic and Management*, 16: 179-188.

Goduka, N. (2012). From Positivism to Indigenous Science: A Reflection on World Views, Paradigms and Philosophical Assumptions. *Journal of Africa Institute of South Africa*, 41(4): 123-138.

Gorman, G., Hanlon, D. & King, W. (1997). Some Research Perspectives on Entrepreneurship Education, Enterprise Education and Education for Small Business Management: A Ten-year Literature Review. *International Small Business Journal*, 15(3): 56-77.

Green, R., David, J. & Dent, M. (1996). The Russian entrepreneur: a study of psychological characteristics. *International Journal of Entrepreneurial Behaviour & Research*, 2(1): 49-58.

Guba, E. G. & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Thousand Oaks, CA: Sage.

Gurol, Y. & Atsan, N. (2006). Entrepreneurial characteristics amongst university students: some insights for enterprise education and training in Turkey. *Education and Training*, 48 (1):p. 25-39.

Hamann, R. (2006). Can business make decisive contributions to development? Towards a research agenda on corporate citizenship and beyond. *Development Southern Africa*, 23(2): 175-195.

Henderson, J. (2002). Building the Rural Economy with High-Growth Entrepreneurs. *Economic Review*, third quarter: 45-70.

Henry, C., Hill, F. & Leitch, C. (2005). Entrepreneurship education and training: can entrepreneurship be taught? Part II. *Education and Training*, 47(3): 158-169.

Herrington, M., Kew, J. & Kew, P. (2009). *Tracking Entrepreneurship in South Africa: a GEM perspective*. Cape Town: Centre for Entrepreneurship and Innovation, Graduate School of Business, UCT.

Herrington, M., Kew, J., Simrie, M. & Turton, N. (2011). *Global Entrepreneurship Monitor South Africa 2011 Report*. Cape Town: Centre for Entrepreneurship and Innovation, Graduate School of Business, UCT.

Hisrich, R.D., Peters, M.P. & Shepherd, D.A. (2008). *Entrepreneurship*. New York, McGraw-Hill Companies.

Holcombe, R.G. (1998). Entrepreneurship and Economic Growth. *The Quarterly Journal of Austrian Economics*, 1: 45-62.

Hytti, U. & Koupusjarvi, P. (2004). Evaluating and Measuring Entrepreneurship and Enterprise Education: Methods, Tools and Practices. Small Business Institute, Business Research and Development Centre, Turku School of Economics and Business Administration, Turku.

Ibrahim, A. B. & Soufani, K. (2002). Entrepreneurship education and training in Canada: A critical assessment. *Education and Training*, 44(8/9): 421–430.

Isaacs, E., Visser, K., Friedrich, C. & Brijlal, P. (2007). Entrepreneurship education and training at the Further Education and Training (FET) level in South Africa. *South African Journal of Education*, 27: 613-629.

Jack, S. & Anderson, A.R. (1999). Entrepreneurship Education within the enterprise culture producing reflective practitioners. *International Journal of Entrepreneurial Behaviour and Research* 5(3), 110-125.

Johannison, B. (1991). University training for entrepreneurship: Swedish approaches, *Entrepreneurship & Regional Development*, 3(1): 67–82.

Johnston, R. J. (1991). *A Question of Place: Exploring the Practice of Human Geography*. Oxford: Blackwell.

Johnstone, P.L. (2004). Mixed Methods, Mixed Methodology Health Services Research in Practice. *Qualitative Health Research*, 14(2): 259-271.

Jones, C. & English, J. (2004). A contemporary approach to entrepreneurship education. *Education and Training*, 46(8/9): 416-23.

Katz, J. (2003). The Chronology and Intellectual Trajectory of American Entrepreneurship Education – 1876-1999. *Journal of Business Venturing*, 18: 283-300.

Kelly, K., Clark, B., Brown, V. & Sitzia, J. (2003). Good practice in the conduct and reporting of survey research. *International Journal for Quality in Health Care*, 15(3): 261-266.

Kingdon, G.G. & Knight, J. (2004). Unemployment in South Africa: The nature of the Beast. *World Development*, 32(3): 391-408.

Kirby, D.A. (2002). *Entrepreneurship*, Maidenhead: McGraw-Hill.

Kirby, D.A. (2004). Entrepreneurship education: can business schools meet the challenge? *Education and Training*, 46(8): 510-519.

Kirzner, I.M. (1973). *Competition and Entrepreneurship*. Chicago: University of Chicago Press.

Klapper, L., Laeven, L. & Rajan, R. (2006). Entry regulation as a barrier to entrepreneurship. *Journal of Financial Economics*, 82 (3): 591-629.

Koh, H.C. (1996). Testing hypotheses of entrepreneurial characteristics. *Journal of Managerial Psychology*, 11: 12-25.

Kolvereid, L. (1996). Prediction of employment status choice intentions. *Entrepreneurship Theory and Practice*, 21(1): 47-57.

Kroon, J., De Klerk, S. & Dippenaar, A. (2003). Developing the next generation of potential entrepreneurs: co-operation between schools and businesses? *South African Journal of Education*, 23(4): 319-322.

Krueger, N.F. & Carsrud, A. (1993) Entrepreneurial intentions: applying the theory of planned behaviour. *Entrepreneurship and Regional Development*, 5: 316-23.

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

Kuratko, D.F. (2005). The emergency of entrepreneurship education: development, trends and challenges. *Entrepreneurship Practice and Theory*, 29(3):577-96.

Laukkanen, M. (2000). Exploring alternative approaches in high level entrepreneurship education: creating micro mechanisms for endogenous regional growth. *Entrepreneurship & Regional Development: An International Journal*, 12(1): 25-47.

Letourneau, N. & Allen, M. (1999). Post-positivistic critical multiplism: a beginning dialogue. *Journal of Advanced Nursing*, 30(3): 623-30.

Littunen, H. (2000). Entrepreneurship and the characteristics of the entrepreneurial personality. *International Journal of Entrepreneurial Behaviour & Research*, 6(6): 295-309.

Lüthje, C. & Franke, N. (2002). Fostering Entrepreneurship through University Education and Training: Lessons from Massachusetts Institute of Technology. Proceedings of the European Academy of Management, Stockholm, Sweden. 9-11 May.

McGregor, S.L.T. & Murnane, J.A. (2010). Paradigm, methodology and method: intellectual integrity in consumer scholarship. *International Journal of Consumer Studies*, 34: 419-427.

Mentoor, E.R. & Friedrich, C. (2007). Is entrepreneurial education at South African universities successful? An empirical example. *Industry & Higher Education*, June 2007: 221-232.

Minniti, M. (2008). The Role of Government Policy on Entrepreneurial Activity: Productive, Unproductive, or Destructive? *Entrepreneurship Theory and Practice*, 32(5): 779-790.

Mok, K.H. (2005). Fostering Entrepreneurship: Changing role of Government and higher Education Governance in Hong Kong, *Research Policy*, 34: 537-554.

Mokyr, J. (1990). *The Lever of Riches: Technological Creativity and Economic Progress*. New York: Oxford University Press.

Ndedi, A.A. (2009). Entrepreneurship training and job creation in South Africa: Are tertiary institutions filling the gap? *Journal of Contemporary Management*, 6: 463-470.

Neuman, W.L. (2011). *Social Research Methods: Qualitative and Quantitative Approaches*. Boston, Pearson Education, Inc.

Nieman, G. (2001). Training entrepreneurs and small business enterprises in South Africa: as situational analysis. *Education and Training*, 43(8/9): 445-450.

Obisanya, J.F., Akinbami, C.A.O. & Fayomi, A.O. (2010). Entrepreneurship Education and Undergraduates' Attitude to Self-employment: A Case Study of a Nigerian University. *Ife Pyschologia*, 18(2): 87-107.

Peneder, M. (2009). The Meaning of Entrepreneurship: A Modular Concept. *Journal of Industrial Competitiveness Trade*, 9: 77-99.

Ponterotto, J.G. (2005). Qualitative Research in Counseling Psychology: A Primer on Research Paradigms and Philosophy of Science. *Journal of Counseling Psychology*, 52(2): 126-136.

Pruett, M., Shinnar, R., Toney, B., Llopis, F. & Fox, J. (2008). Explaining entrepreneurial intentions of university students: a cross-cultural study. *International Journal of Entrepreneurial Behaviour & Research*, 15(6): 571-594.

Rae, D. (2010). Universities and enterprise education: responding to the challenges of the new era. *Journal of Small Business and Enterprise Development*, 17(4): 591-606.

Rasmussen, E.A. & Roger, S. (2006). Action-Based Entrepreneurship Education. *Technovation*, 26: 185-194.

Roodt, J. (2005). Self-employment and the required skills. *Management Dynamics*, 14(1): 18-33.

Rogerson, C.M. (1996). Urban poverty and the informal economy in South Africa's economic heartland. *Environment and Urbanization*, 8(1): 167-179.

Sale, J.E.M., Lohfeld, L.H. & Brazil, K. (2002). Revisiting the Quantitative-Qualitative Debate: Implications for Mixed-Methods Research. *Quality & Quantity*, 36: 43-53.

Sandelowski, M. (2000a). Focus on Research Methods: Combining Qualitative and Quantitative Sampling, Data Collection, and Analysis Techniques in Mixed-Method Studies. *Research in Nursing & Health*, 23: 246-255.

Sandelowski, M. (2000b). Focus on Research Methods: What happened to qualitative description? *Research in Nursing & Health*, 23: 334-340.

Scheepers, M.J., Solomon, G. & De Vries, A. (2009). *Global University Entrepreneurial Spirit Students' Survey: South African Report 2008-2009*. Stellenbosch: University of Stellenbosch.

Sekaran, U. (1992). *Research Methods for Business: A Skill-Building Approach*. 2nd Edition. New York, NY: Wiley.

Shabbir, A. & Di Gregorio, S. (1996). An examination of the relationship between women's personal goals and structural factors influencing their decision to start a business: A case for Pakistan. *Journal of Business Venturing*, 11: 507-529.

Solomon, G. (2007). An examination of entrepreneurship education in the United States. *Journal of Small Business and Enterprise Development*, 14(2): 168-182.

Souitaris, V., Zerbinati, S. & Al-Laham, A. (2006). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *The Journal of Business Venturing*, 22: 566-591.

South Africa. (2000). Preferential Procurement Public Finance Act (PPPFA), Act No. 5 of 2000. Pretoria: Government Printers.

South Africa. (2003). Broad-Based Black Economic Empowerment (BB-BEE), Act No. 53 of 2003. Pretoria: Government Printers.

Sowmya, D.V., Majumdar, S. & Gallant, M. (2010). Relevance of education for potential entrepreneurs: an international investigation. *Journal of Small Business and Enterprise Development*, 17(4): 626-640.

Statistical Package for Social Sciences (SPSS). (2011). Version 20. New York, NY: International Business Machines Corporation (IBM). [Online]. Available from <http://www.ibm.com/software/analytics/spss> [Accessed 13 March 2012].

- Statistics South Africa. (2013). Statistical Release: Quarterly Labour Force Survey [Online]. Available from <http://www.statssa.gov.za> [Accessed 26 May 2013].
- Steenekamp, A.G., Van der Merwe, S.P. & Athayde, R. (2011). An investigation into youth entrepreneurship in selected South African secondary schools: An exploratory study. *Southern African Business Review*, 15(3): 46-75.
- Stokes, D., Wilson, N. & Mador, M. (2010). *Entrepreneurship*. Hampshire (UK), South-Western Cengage Learning.
- Taatila, V.P. (2010). Learning entrepreneurship in higher education. *Education & Training*, 52(1): 48–61.
- Timmons, J.A. & Spinelli, S. (2003). *New Venture Creation: Entrepreneurship for the 21st Century*. New York, McGraw-Hill Companies.
- Ucbasaran, D., Westhead, P. & Wright, M. (2001). The focus of entrepreneurial research: contextual and process issues. *Entrepreneurship Theory and Practice*, 25(4): 57-80.
- University of KwaZulu-Natal. (2010). UKZNOnline: Symposium tracks new NSC undergraduates. [Online]. Available from <http://www.ukzn.ac.za/UKZNOnline/V4/12/s12.html> [Accessed 25 August 2013].
- Van der Kuip, I. & Verheul, I. (2003). Early Development of Entrepreneurial Qualities: the Role of Initial Education. *International Journal of Entrepreneurship Education*, 2(2): 203-26.
- Van Stel, A., Carree, M. & Thurik, R. (2005). The Effect of Entrepreneurial Activity on National Economic Growth. *Small Business Economics*, 24: 311-321.
- Venkataraman, S. (2004). Regional transformation through technological entrepreneurship. *Journal of Business Venturing*, 19: 153-167.

Veciana, J.M., Aponte, M. & Urbano, D. (2005). University Students' Attitudes Towards Entrepreneurship: A Two Countries Comparison. *International Entrepreneurship and Management Journal*, 1(2): 165-182.

Wennekers, S. & Thurik, R. (1999). Linking Entrepreneurship and Economic Growth. *Small Business Economics*, 13(1): 27-55.

Wickham, P.A. (2006). *Strategic Entrepreneurship*. Essex: Pearson Education.

Whitfield, L. (2012). How Countries Become Rich and Reduce Poverty: A Review of Heterodox Explanations of Economic Development. *Development Policy Review*, 30(3): 239-260.

APPENDIX A: QUESTIONNAIRE

**University of KwaZulu-Natal School of Management, IT and Governance,
Pietermaritzburg campus**

Dear Participant

My name is, Mzwanele Memani, and I am currently studying towards obtaining a Master of Commerce degree in Entrepreneurship. One of the requirements to be met to obtain this degree is to conduct a research study. The approved topic for my study is 'Factors influencing the development of productive entrepreneurial behaviour among university students'.

The purpose of my study is to investigate barriers that hinder the development of productive entrepreneurial behaviour among university students. The results of the study will be used to contribute to government policy and efforts to encourage university graduates to consider productive entrepreneurship as a career option after completing their studies. **Your responses and opinions will thus add great value to the study.**

This questionnaire consists of *6 pages*, and should take approximately *twenty (20) minutes* to complete. The questionnaire consists of two sections. Please feel free to answer honestly about yourself in Section A and ensure that you familiarise yourself with the rating system in Section B. Section A and B are explained below.

Section A	Section B
<p>This section contains demographical information. Please provide your appropriate answer. This information is needed for analytical purposes only.</p>	<p>The section requires of you to merely mark the option that best suits your opinion with an 'X', in accordance to the scale provided</p> <p>The questions or statements have various scales that range from:</p> <ul style="list-style-type: none"> - 1 for strongly disagree to 5 for strongly agree. - 1 for not at all likely to 5 for highly likely/already running a business. - Choose between yes or no. - Choose between self-employed or full-time employment.

Please note that:

- Your privacy is protected and that no other person except my supervisor, Dr Ziska Fields, and myself will see your responses.
- Your participation is completely voluntary and thus you are under no obligation to complete the questionnaire. Your responses however, will be greatly appreciated as this will enable me to establish a more scientific pattern that would contribute to public policy discourse.

If you decide to participate, please read and sign the attached letter of consent and hand it to the researcher or designated person with your completed questionnaire.

Part I

1. Demographical Information

- a) Age -----
- b) Race (African/Indian/Coloured/White) -----
- c) Gender (Male/Female) -----
- d) Place of birth (location) -----
- e) Year of study (1st Year, 2nd Year, 3rd year, or
Other – specify) -----

Part II

1. Importance of entrepreneurship

	strongly disagree	disagree	neutral	agree	strongly agree
Entrepreneurship is important for the economic growth of a country	1	2	3	4	5
Entrepreneurship creates jobs	1	2	3	4	5
Entrepreneurship alleviates poverty	1	2	3	4	5
Entrepreneurship creates sustainable communities	1	2	3	4	5
Tertiary education plays a key role in supporting entrepreneurship development	1	2	3	4	5
I think tertiary institutions are developing productive entrepreneurial behaviours, e.g. encouraging students to be creative and innovative.	1	2	3	4	5
Most people still see crime and rent-seeking as means to earning a living	1	2	3	4	5
In order for the South African economy to grow, more graduates should start their	1	2	3	4	5

own businesses					
South Africa does not have a shortage of entrepreneurs	1	2	3	4	5

2. Attitude towards entrepreneurship

	strongly disagree	disagree	neutral	agree	strongly agree
I would rather determine my own salary than have job security	1	2	3	4	5
It is only through self-employment that one can get rich	1	2	3	4	5
I would rather start my own business than be an employee of an existing business	1	2	3	4	5
Most successful people I know of have started their own companies	1	2	3	4	5
I believe that starting a business is the right choice for individuals with my educational qualifications	1	2	3	4	5

3. Likelihood of starting own business

	Not at all likely	Not likely	Likely	Very Likely	Already started a business
I am confident that I will start a business at some point	1	2	3	4	5
I will start a business after completing my studies	1	2	3	4	5
I am scared of failure if I were to start a	1	2	3	4	5

business					
I will start a business after acquiring years of work experience	1	2	3	4	5
I will consider to start a business if only I become rich	1	2	3	4	5
My personal circumstances will hinder me from starting a business	1	2	3	4	5
I will start a business whilst working in full-time employment	1	2	3	4	5
If I become unemployed, I may consider to start my own business	1	2	3	4	5
I am positive that I would succeed if I started my own company	1	2	3	4	5
I do possess the requisite skills to succeed in running my own company	1	2	3	4	5
I look forward to starting my own company as this would put my education into practice	1	2	3	4	5
I will not consider to start my own business	1	2	3	4	5
I may consider to start a business but I am afraid I am not innovative and creative	1	2	3	4	5
I think I may not get government support if I considered to start my own business	1	2	3	4	5

4. Exposure to entrepreneurship

i) Personal experience:

Do your parents own a business?	Yes	No
Have you had an opportunity of working at a small business?	Yes	No
Have you ever started and run your own business?	Yes	No
Do you know any entrepreneurs personally?	Yes	No

ii) Within my community:

The following category of persons is my role model when it comes to earning a living or creating wealth (please tick appropriate box and indicate if they are self-employed or working in full-time employment)

	Role Model	Self-employed	Full-time employed
Parents/relatives			
Friends			
Business People			
Politicians			
Professionals (Nurses, teachers, lecturers, engineers, etc)			
Other (specify)			

iii) At school or university:

	strongly disagree	disagree	neutral	agree	strongly agree
I have never been exposed to entrepreneurship in my high school	1	2	3	4	5
Tertiary institution plays a key role in exposing me to entrepreneurship education	1	2	3	4	5

The method of teaching entrepreneurship does not prepare students to start and run their own businesses	1	2	3	4	5
I know many students who have started and are running successful companies	1	2	3	4	5
In my university, students are actively encouraged to see self-employment as a career option	1	2	3	4	5
My university provides a perfect platform for students who want to start their own company	1	2	3	4	5

5. Other factors influencing the development of productive entrepreneurial behaviours among university students

	Not at all likely	Not likely	Likely	Very Likely	Highly likely
I do not know how to look for opportunities to enable me to start a business	1	2	3	4	5
It is too difficult to register a business	1	2	3	4	5
Lack of exposure to productive entrepreneurship, e.g. I have never been encouraged to use my innovation to start a business	1	2	3	4	5
I lack skill to manage a business	1	2	3	4	5
I do not know how to create a business plan	1	2	3	4	5
I am reluctant to start a business as I do not possess any technical knowledge	1	2	3	4	5
I do not know how to do financial forecasts	1	2	3	4	5
Inadequate training and education on productive entrepreneurship provided by the university	1	2	3	4	5

Most students are inspired by unproductive and destructive entrepreneurial activities such as crime and rent-seeking	1	2	3	4	5
Banks will be hesitant to give loans to start-ups	1	2	3	4	5
Lack of government support	1	2	3	4	5
It is too costly to register a business	1	2	3	4	5
Rules and regulations will hinder start-ups, e.g. tax and human resource legislation	1	2	3	4	5
Lack of information on what to do to start a business	1	2	3	4	5
I lack motivation to start and run a business	1	2	3	4	5
I think external economic conditions (such as recession, petrol prices and interest rates) will discourage me from starting a business	1	2	3	4	5
The role of entrepreneurs is not appreciated by the society	1	2	3	4	5
My parents would not support me if I were to start a business	1	2	3	4	5

6. The initiatives of government, private sector and universities to support potential graduate entrepreneurs

	strongly disagree	disagree	neutral	agree	strongly agree
I am not aware of any government initiatives supporting graduates to start their own businesses	1	2	3	4	5
Government should promote productive entrepreneurship among students, e.g. they should host business plan competitions so that	1	2	3	4	5

winners can be rewarded for their innovative business ideas					
Government should work with universities and other stakeholders to run campaigns that encourage graduates to start own businesses	1	2	3	4	5
Government can do little to encourage productive entrepreneurial behaviours	1	2	3	4	5
Government should consider public policy to promote innovation and creativity among university graduates	1	2	3	4	5
The private sector can sponsor innovative ideas & encourage university students to consider self-employment as a career option	1	2	3	4	5
Universities that teach enterprise education should expose students to the theory and practice of starting and running a business	1	2	3	4	5

APPENDIX B: ETHICAL CLEARANCE



16 July 2012

Mr Mzwanele M Memani (212558170)
School of Management, IT & Governance

Dear Mr Memani

Protocol reference number: HSS/0553/012M

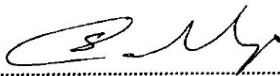
Project title: Factors influencing the development of productive entrepreneurial behaviour among university students

In response to your application dated 20 June 2012 the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number. Please note: Research data should be securely stored in the school/department for a period of 5 years.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully



.....
Professor Steven Collings (Chair)
Humanities & Social Science Research Ethics Committee
/ms

cc Supervisor: Ziska Fields
cc Academic Leader: Professor K Govender
cc Debbie Cunynghame

Professor S Collings (Chair)
Humanities & Social SC Research Ethics Committee
Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban, 4000, South Africa
Telephone: +27 (0)31 260 3587/8350 Facsimile: +27 (0)31 260 4609 Email: ximbop@ukzn.ac.za / snymanm@ukzn.ac.za
Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

Inspiring Greatness





19 June 2012

Mr Mzwanele Mbonisi Memani
School of Management, IT and Governance
Westville Campus
UKZN
Email: 212558170@stu.ukzn.ac.za

Dear Mr Memani


RE: PERMISSION TO CONDUCT RESEARCH

Gatekeeper's permission is hereby granted for you to conduct research at the University of KwaZulu-Natal towards your postgraduate studies, provided Ethical clearance has been obtained. We note the title of your research project is:

"Factors influencing the development of productive entrepreneurial behavior among university students".

Please note that the data collected must be treated with due confidentiality and anonymity.

Yours sincerely



Professor JJ Meyerowitz
REGISTRAR

Office of the Registrar
Postal Address: Private Bag X54001, Durban, South Africa
Telephone: +27 (0) 31 260 8000/2206 Facsimile: +27 (0) 31 260 7824/2204 Email: registrar@ukzn.ac.za
Website: www.ukzn.ac.za

1810 . 2010
100 YEARS OF ACADEMIC EXCELLENCE

Inhlanga, Camakusa ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville