ENTREPRENEURIAL INTENTION OF MATRIC COMMERCE STUDENTS IN RURAL AREAS OF KWAZULU-NATAL, SOUTH AFRICA

Submitted in fulfilment of the requirements of the degree of Doctor of Philosophy in Management Sciences Specialising in Business Administration in the Faculty of Management Sciences at the Durban University of Technology

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Approved for final submission

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DECLARATION

I, Mondli Honesty Phetha, do hereby declare that “Entrepreneurial Intention of Matric Commerce Students in Rural Areas of KwaZulu-Natal, South Africa”

is the result of my investigation and research and that this has not been submitted in part or full for any degree or for any other degree to any other University.

Mondli Honesty Phetha

Date

PROF J. K. ADAM (PHD)
Supervisor

APPROVED FOR FINAL SUBMISSION

Date

2022/09/06
ACKNOWLEDGEMENTS

This study would not have been a success without my Lord Almighty who made me realize the potential imbedded upon me. He has remained a fountain of strength and powerful voice that kept telling me that it is possible to successfully undertake this project.

My gratitude also goes to my supervisor Professor J.K Adam who gave me invaluable support and provided me with direction.

I am thankful to my mom for her prayers and for raising me when the circumstances were extremely unfavorable. Thank you mom for introducing me to my God. You taught me that God can be my friend, my provider, my Shepard, my pillar of strength, and everything I want Him to be.

I am thankful to my granny for her immense contribution in my life. Her support and sacrifices don’t go unnoticed.

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ABSTRACT

Entrepreneurship is widely accepted to be an effective mechanism for elevating tripartite challenges of unemployment, inequality and poverty. This study was conducted to gauge whether matric commerce students in rural areas of KwaZulu-Natal have the intention to start their own businesses.

The study put heavy reliance on entrepreneurial intention models and focused on the relationship between exposure to entrepreneurship education, personality traits of entrepreneur and social capital as variables of the study, aimed to establish whether they are related to the intention of matric commerce students to start their own businesses.

The current literature was consulted in an effort to understand diverse views on entrepreneurial intention and entrepreneurial intention models; entrepreneurship education and its role in strengthening entrepreneurial intention, entrepreneurial self-efficacy, entrepreneurial competencies and entrepreneurial intention; the influence of social capital on entrepreneurial intention, key drivers and enablers of entrepreneurial intention and personality traits that influence entrepreneurial intention.

A survey was conducted among commerce students in 11 districts of Kwa-Zulu Natal. The respondents for the study comprised 433 matric commerce students of which 38 were from Amajuba, 45 from Ethekwini, 43 from Ilembe, 39 Sisonke, 33 from Ugu, 47 Umgungundlovu, 56 from Umkhanyakude, 47 from Umzinyathi, 36 from Uthukela, 34 from Uthungulu and 15 from Zululand. Data was analysed using descriptive statistics and nonparametric statistics.

The findings revealed that seventy percent were ready to start a business after their studies and believed that their professional goal was to be an entrepreneur. Some
significant relationships were found between entrepreneurial intention and the key variables of the study. The study developed an entrepreneurship model using the personality traits influencing entrepreneurial intention, social capital and entrepreneurship education as variables of entrepreneurial intention.

The study recommended that government authorities should come up with awareness programmes that encourages business start-ups especially considering the fact that unemployment looms the South African market. The government authorities should channel the curriculum even more positively in order to interest these matric students in starting a business after leaving school. The authorities are highly encouraged to provide free workshops and training activities that will equip these matric students as far as the management of financial records and assets of the business is concerned besides the academic subjects they are getting.

The study recommends that future researchers may consider the same scope and area of study but making use of a different methodological approach. Studies may use an approach that will be able to rank the level of entrepreneurship intention of these matric students.

Alternatively, the same research can be conducted but in the form of a comparative study across African countries and this will enrich a wider and better understanding at continental level.

A study on entrepreneurial intention of commerce matric students can also be examined in the context of both urban and rural areas of South Africa in order to ascertain the net effect as entrepreneurship cuts across both in the rural and urban areas.
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CHAPTER 1: THE OVERVIEW OF THE STUDY

1.1 INTRODUCTION

The crucial role of entrepreneurship as an impetus of modern civilization is found throughout human history (Sesen, 2012:624). Entrepreneurship has attracted a large portion of attention in the recent years, given its integral role in the attainment of economic growth, reduction of unemployment and accelerating social development (Sesen, 2012: 624). Furthermore, entrepreneurship remains the core of capitalism, hence, the upward trajectory of attention on entrepreneurship from economists (Sesen, 2021: 624). Moreover, entrepreneurship has played an integral function in the conceptualisation of globalisation (Sesen, 2012: 624).

Since the attainment of democracy in 1994, South Africa has been plagued by the intransigence of skewed income distribution, high unemployment and high level of poverty (Barnard, 2012:1). The social issues of high level of crimes, dwindling morality, corruption and low income per capita can be best solved by high levels of entrepreneurship amongst the youth (Beeka and Rimmington, 2011:146). The lingering high unemployment rate in South African context has a potential to accentuate social tension (Barnard, 2021: 1). South Africa occupies a top seat in the group of countries with high youth unemployment (i.e, 52.9 percent in year 2018, 32.6% overall unemployment rate), (Maskaeva and Msafiri, 2021:10; Stats SA, 2021).

Entrepreneurship is believed to be important in social and economic development and innovation, thereafter elevation of unemployment (Barnard, 2012:1). Given the staggering high level of youth unemployment in the country of South Africa, there is a necessity to introduce a mechanism that will provide impetus for new job-creation, which entails skills development, amongst other things (Du Toit, 2003:7). The relatively low entrepreneurial intention amongst the youth is concerning in South Africa, prompting policy initiates on the part of government to stimulate entrepreneurial venture creation (Muofhe and Du Toit, 2011:2). The quelling of poverty, unemployment and inequality, particularly amongst the youthful population of South Africa dictates a
robust policy shift aimed at stimulating youth entrepreneurial propensity (Barnard, 2012:2). Hence, this research project aimed at investigating entrepreneurial intention of matric commerce students, focusing on rural areas of KwaZulu-Natal, South Africa.

The chapter commences with consulting extant authority studies on youth unemployment in South Africa. The chapter continues to expose the underlying rationale informing the study. The chapter proceed to formulate problem statement, research problem, objectives and research questions underpinning the study. The Chapter concludes with the outlining the significance of the study, delimitation and study framework.

1.2 THE CONTEXT OF THE STUDY

Matric students, as part of the youth group around the world, are facing the challenge of finding employment (Bignotti, 2013:2; Sitoula, 2015:3; Nawang, Mamat, Saát & Ahmad, 2016:112). Amongst other policy priorities, youth entrepreneurship dominates the top strata of socioeconomic policy agenda of South Africa (Bignotti, 2013). Despite the importance of youth entrepreneurship, there seem to be a very low entrepreneurial intention amongst matric students with commercial subjects in KwaZulu-Natal Province of South Africa. This lack has been highlighted by Bignotti (2013:5) in the study on lack of entrepreneurial intentions amongst the youth of South Africa. The youth of South Africa is estimated at 36.5% of the total population (StatsSA, 2016:9). The total unemployment in South Africa is estimated at around 27.6% and youth between the ages of 15-34 makes up 70% of the total unemployment (StatsSA, 2016:1). The youth is defined as persons between the ages of 15 to 34 (StatsSA, 2016:5). According to StatsSA (2016:32) youth unemployment is hugely influenced by the level of education. StatsSA (2016:32) reports that the unemployment rate for the youth with no matric is 57%, with matric is 38%, youth with qualifications other than university degree is 4% and graduates with university degree is 1%.
Furthermore, the province of KwaZulu-Natal has the second largest population of youth. The support and development of youth entrepreneurship creates new ways of employment, alleviation of poverty and ultimately a socioeconomic growth of the country (Gănescu, 2014:580). According to StatSA, (2016:8), the province of KwaZulu-Natal has a youth population of 3 913 000, a second youthful province in South Africa after Gauteng province which is estimated to have 4 585 000 youths. Based on the foregoing, the study will focus on all the districts of the province of KwaZulu-Natal, South Africa.

Previous studies undertaken by Malebana (2012:18), Zhang, Duijsters and Cloodt (2014:624), concentrated exclusively on studying entrepreneurial intentions of final year tertiary students. Kautonen, van Gelderen and Fink (2015: 655-647) and Matthias (2015) take a view that the study of entrepreneurial intention is an important element to the whole comprehension of the process of venture creation. This makes it necessary to conduct this study which will focus on the matric segment of the youth of South Africa, and particularly those with commerce subjects in KwaZulu-Natal Province. Fatoki (2014:294), argues that revolutionary entrepreneurial interventions dictate introducing entrepreneurship curriculum that start from childhood and high schooling years. According to Opoku-Antwi et al. (2012:211) very limited number of studies have been conducted on entrepreneurial intention. The study is premised on the fact that South African dynamics include a matric group which will not be able to further their studies due to a plethora of both personal and socio-economic reasons (Moloi, Mkwanazi & Bojabotseha, and 2014:470). Applying the findings of studies conducted within tertiary education environment to this group of matric learners will give an incorrect picture as the former has no benefit and exposure to in-depth body of literature and the latter exist in an environment where real time information is readily available (Barnard, 2012:1). Kelman (2015:14) assent that notwithstanding sizable extant entrepreneurship studies, it is rare to find examples of studies focusing on high school learners.

From the above discussion, it follows that the country of South Africa is made up to a larger extent of youthful population, KwaZulu-Natal being the second province in the
country to have majority of youth and it is also one of the provinces with a sizeable rural populace. The province is in a dire state of unemployment and low levels of youth entrepreneurship. For these reasons this study focuses on this province and on youth.

1.3 THE AIM OF THE STUDY

The aim of the research study is to investigate entrepreneurial intention of matric commerce students in rural areas of KwaZulu-Natal, South Africa.

1.4 PROBLEM STATEMENT

The unemployment rate of South Africa has swelled up reaching a 27.7%, youthful population (between the age of 15-34 years) being the hardest hit, with 38.6% of the total unemployment rate (StatsSA, 2017:1). According to Fatoki (2014:294), the exacerbated unemployment rate assuming an upward trajectory is usually attributed to poorly equipped population with start-up know-how. The reading of the statements justifies the interpretation which suggests that low entrepreneurship amongst the 15-34 years group remains a daunting challenge for South African economy. Grundling & Steynberg (2014:2-6) posits that despite not improving status of entrepreneurship amongst the youth between the ages of 15-34, there seem to be very little interest on entrepreneurship amongst the youth.

Madzivhandila & Dlamini, (2015:605) quantifies youth entrepreneurship to be sitting at 22.5%, which is very low if it is juxtaposed with the youth unemployment rate of 38.6% (StatsSA, 2017:1). This entices a propensity of probing different interventions made by different role players in the entrepreneurship ecosystem of South Africa. Gwija, Chuks and Chux (2014:10) believes that while the state as a role player in the entrepreneurship ecosystem has made great strides in coming up with important interventions, the low levels entrepreneurship amongst the youth remains on a low trajectory. In the early study, Bignotti (2013:6), enumerated important interventions by the state which include National Youth Development Agency (NYDA), Broad-based Black Economic Empowerment Act and African Youth Charter.
Furthermore, Chindoga (2011:161), put forward a view that the answer to enticing youth entrepreneurship lies in education system which needs to expand its scope on entrepreneurship. Malebana (2012:12) is of the view that critical entrepreneurial skills ought to be introduced at primary schooling level so that more young people will be inclined to explore entrepreneurship career paths post high school education. The lingering low entrepreneurial intention among the youth of South Africa versus the already introduced interventions create a gap for this research to be undertaken. The gap is depicted on Figure 1

Figure 1: Depicts the gap in this area of research
Source: Researcher

The problem statement of this research is mainly to investigate entrepreneurial intention of matric commerce students in rural areas of the province of KwaZulu-Natal, South Africa. This, therefore, will provide the primary research question of the study, “do matric commerce students in rural areas of KwaZulu-Natal, South Africa have the intention to become entrepreneurs?”

1.5 OBJECTIVES OF THE RESEARCH

1.5.1 Objectives

The concomitant objectives of the primary aim of the research study are:

- To investigate the extent to which matric commerce students perceive entrepreneurship as a career.
• To investigate factors underlying entrepreneurial intention among young South Africans, particularly matric commerce students in rural areas of KwaZulu-Natal, South Africa
• To critically discuss various researchers’ views on entrepreneurial intention of youth
• To investigate the influence of entrepreneurial education on entrepreneurial intention
• To develop an entrepreneurship model using the personality traits influencing entrepreneurial intention, social capital and entrepreneurship education as variables of entrepreneurial intention.

1.5.2 Research questions

The questions emanating from the objectives of the study are:

• To what extent do matric commerce students in rural area perceive entrepreneurship as a career?
• Which factors drive entrepreneurial intention among young South Africans, particularly matric commerce students in rural areas of KwaZulu-Natal, South Africa?
• What have other researchers found to be the drivers of entrepreneurial intention among youth?
• What is the influence of entrepreneurial education on entrepreneurial intention?
• Considering social capital and entrepreneurship education as key variables of entrepreneurial intention, which entrepreneurship model is best suited to adequately explaining entrepreneurial intention?

1.6 SIGNIFICANCE OF RESEARCH

The study takes the view that, to enable South African economy to produce adequate employment, youth entrepreneurship needs to be on an upward trajectory (Chimucheka, 2014:403; Hussain, Bhuiyan & Bakar, 2014:560-562). The view is that the development of entrepreneurial intention amongst youth becomes an antecedent
to all efforts of cementing entrepreneurship culture amongst the youth (Chindoga, 2011:161). There is scarcity within the South African context of empirically tested literature that is focusing exclusively on youth entrepreneurial (Bignotti, 2013:6). The research intends to make the following contributions:

- Contribute to government establishments’ effort in fostering the culture of economically emancipated citizenship of youth group of the society.

- Provide empirically tested literature on the antecedent of entrepreneurial intention, confining the scope of focus to personality traits that influence entrepreneurial intention, social capital and entrepreneurship education.

- For basic education level, particularly the matric population, the research study is well positioned to enrich the body of literature of entrepreneurship education by explaining and recommending how entrepreneurial intention and behaviour can be strengthened in learners at matric level as means to contribute to future pool of business owners.

- Assist policymakers in South Africa by collating personality traits important to aspiring entrepreneurs, investigating potential linkages or lack thereof between social capital, entrepreneurship education and entrepreneurial intention.

1.7 DELIMITATIONS OF THE STUDY

The study focused on matric commerce students, schooling in rural areas of KwaZulu-Natal, South Africa.

1.8 ORGANISATION OF THE RESEARCH STUDY

The framework of this research study is made up of seven chapters as follows:

Chapter One: The overview of the study
This first chapter presents the introduction to the study, the statement of the problem which motivated the study as well as research questions and research objectives. Additionally, the chapter also demonstrates the significance of the study and a chapter outline showing what each chapter entails.

**Chapter Two: Theoretical and Conceptual Framework**

This chapter discusses dominant theories and concepts underpinning the study on entrepreneurial intention. Some of the theories that are discussed here include the Theory of a Planned Behaviour, and Shapero and Sokol’s Model of Entrepreneurship Event (SEE).

**Chapter Three: Salient Features of Entrepreneurial Intention**

This chapter reviews literature related to salient features of entrepreneurial intention, such as social capital, entrepreneurship education and personality traits that influence entrepreneurial intention. The discussion of related literature in this chapter is dictated by the research questions and objectives.

**Chapter 4: Key Drivers of Entrepreneurial Intention**

This chapter reviews literature related to key drivers of entrepreneurial intention as well as discusses how the drivers work together to result in the intention among the youth to become entrepreneurs.

**Chapter 5: Research Methodology**

This chapter presents the processes, techniques and tools to be used in the collection of primary data. Some of the topics covered includes the specific research design to be adopted, a description of the research population, the sampling technique to be used in selecting the respondents, the data collection tools as well as the specific procedure when collecting the data. Additionally, the chapter also outlines the steps
taken to ensure the reliability and validity of data, the data analysis process as well as the research ethics to be observed during the research process.

**Chapter 6: Statement of Results and Discussion**

This chapter presents the primary data collected using the methods outlined in the preceding chapter. The chapter also discusses the research findings and puts them in context using literature.

**Chapter 7: Conclusions and Recommendations**

This chapter presents a summary of the research findings outlined in the chapter. These includes a summary of the empirical data as well as a summary of the literature on the subject. The research questions posed in the first chapter are also answered in the chapter. Furthermore, an entrepreneurial intention model based on research findings is also presented.
CHAPTER 2: THEORETICAL AND CONCEPTUAL FRAMEWORK

2.1 INTRODUCTION

This chapter presents a definition of entrepreneurial intention that will be used in the study. Additionally, the chapter also presents an overview of theories that are used to underpin the study. These include the Theory of Planned Behaviour as well as the concept of Perceived Behavioural Control. Additionally, the chapter also introduced Shapero and Sokol's Model of Entrepreneurship Event (SEE). The literature which is related to the various definitions, theories, concepts and models is presented as well as the contestations between them.

2.2 DEFINITION OF ENTREPRENEURIAL INTENTION

Throughout history, many definitions of entrepreneurial intention have been espoused by various researchers and authors. For instance, Thompson (2009:669) conceptualise entrepreneurial intention as “self-acknowledged convictions by individuals that they intend to establish new business ventures in the future”. This definition is supported by Davey, Plewa and Struwig (2011:337) who define entrepreneurial intention as an intention of venture creation at some point in life with no specific timelines, and by Adam (2016:24) who defines it as the desire to embark on entrepreneurial behaviour in the future. For Bird (1988) and Liñán et al. (2013:1), entrepreneurial intention is defined as “the key element in understanding the new venture creation process”.

Gănescu (2014:581) complements the above definitions by adding a behavioural aspect to entrepreneurial intention, explaining that entrepreneurial intention is an intrinsic desire to create entrepreneurial venture and ought to be translated to behaviour. The study adopts Gănescu (2014) definition to explain and conceptualise entrepreneurial intention.
### Table 1: Definition of entrepreneurial intention

<table>
<thead>
<tr>
<th>Source</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharma (2018:246)</td>
<td>Entrepreneurial intention is the aspiration to own or start entrepreneurial activity.</td>
</tr>
<tr>
<td>Rao (2019:79)</td>
<td>A mindset that drives an individual to come up with a business concept and embark on an entrepreneurial career.</td>
</tr>
<tr>
<td>Zhang (2017:794)</td>
<td>A desire to create and own a business.</td>
</tr>
<tr>
<td>Aloulou (2015:183)</td>
<td>A conscious mindset that “directs attention (and therefore experience and action) toward a specific object (goal) or the pathway to achieve it”</td>
</tr>
<tr>
<td>Tomy and Pardede (2019:3)</td>
<td>A mental disposition that convicts an individual to the idea of actualising entrepreneurial behaviour and their eventual efforts towards setting up that business.</td>
</tr>
<tr>
<td>Sesen (2012: 626)</td>
<td>A psychological and cognitive disposition that “orients the planning and implementation of a business plan”.</td>
</tr>
<tr>
<td>Nasip et al. (2017:826)</td>
<td>The intention to own a business</td>
</tr>
<tr>
<td>Perez et al. (2017: 11)</td>
<td>Refers to the decision to become an entrepreneur</td>
</tr>
<tr>
<td>Stedham and Wieland (2017:674)</td>
<td>Entrepreneurs’ states of mind that “direct attention, experience, and action toward a business concept, set the form and direction of organizations at their inception”.</td>
</tr>
<tr>
<td>Rantanen et al. (2015: 43-60)</td>
<td>A person’s “concrete plan or serious intention to start a business at some point in the future”.</td>
</tr>
<tr>
<td>Tran and Korflesch (2016:20)</td>
<td>A mindset that drives the actions of an individual, a potential entrepreneur towards the development of concepts that eventually leads to business.</td>
</tr>
</tbody>
</table>

Source: Researcher
2.3 ENTREPRENEURIAL INTENTION MODELS

For some time, scholars have been interested in the variable that drives individuals to form new ventures and become entrepreneurs (Malebana and Swanepoel, 2015:89). Many researchers such as Liñán, Nabi and Krueger (2013: 73-103); Liñán and Chen (2009:612); Segal, Borgia and Schoenfeld (2005: 42) share the view that individuals’ cognitive processes contribute significantly to them forming new ventures. This has been confirmed by several process-oriented cognitive models which include Shapero and Sokol’s model of the entrepreneurial event in entrepreneurship research and the theory of planned behaviour (TPB) (Segal et al. 2005:42; Miralles, Riverola and Giones 2012:21; Schlaegel and Koenig 2014:291). According to Miralles et al. (2012:21) and Krueger, Reilly and Carsrud (2000:411) these models are compatible. Wickham (2006) maintains that these models, which will be briefly discussed below, partly explain individual’s inclinations towards entrepreneurship and how they eventually kick-start their entrepreneurial careers.
### Table 2: History of entrepreneurial intentions.

<table>
<thead>
<tr>
<th>Inventor and Source</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shapero and Sokol’s (1982)</td>
<td>Developed the Entrepreneurial Event (SEE) model. The premise of this model is that entrepreneurial intentions stem from perceptions of feasibility and desirability and the inclination to exploit opportunities.</td>
</tr>
<tr>
<td>Krueger and Brazeal 1994</td>
<td>Developed a model on Shapero’s model within the context of the intentions process.</td>
</tr>
<tr>
<td>Krueger et al. 2000</td>
<td>Innovated the Shapero-Krueger model of entrepreneurial intention using the fundamentals of SEE and TPB.</td>
</tr>
<tr>
<td>Hindle et al. 2009</td>
<td>The Informed Intention Model which is derived from Shapero-Krueger model and posits that a person’s entrepreneurial intent is influenced by a number of variables not just capacity. Some of the variables that might have an impact includes gender, social capital, and human capital. The presence of these variables predicts the actualisation of entrepreneurial behaviour.</td>
</tr>
</tbody>
</table>

Source: Researcher

### 2.3.1 Theory of Planned Behaviour (TPB)

Entrepreneurial intention is catalyst for entrepreneurial behaviour (Kautonen, van Gelderen and Fink, 2015: 655-647). Malebana (2012:35) argues that entrepreneurial behaviours which include identification of gap in the market and venture creation are
intentional and planned behaviours which can be predicted by intentions. According to Jain, Khan and Mishra (2017:6) the theory of a planned behaviour (TPB) refines on the theory of reasoned action (TRA) pioneered by Ajzen and Fishbein in 1980 (Ajzen 2005: 2012). The theory of reasoned action states that the intention is an antecedent of the behaviour (Hegner, Fenko and Teravest, 2017:28; Kim and James, 2016:229). The intention prognosticates the willingness to actualise the behaviour which in turn is influenced by the individual’s disposition regarding the behaviour, subjective norms, and perceived behavioural control (Alonso and Krajsic, 2015:97; Phau, Lim, Liang and Lwin, 2014:248). Figure 2 reflects the determinants of intentions in the theory of a planned behaviour (TPB).

![Figure 2: Theory of planned behaviour: (Ajzen and Cote, 2006:1)](image)

Since its inception, several studies have tested and subsequently validated the TPB. The numerous studies that validated the theory includes South African studies conducted by graduate students. These studies sought to determine the motivations for starting a business as well as evaluating the contribution of education to entrepreneurial intention. Some of these studies covering these topics include the following: Otuya, Kibas et al. (2013); Muofhe and Du Toit (2011); Mueller (2011); Iakovleva, Kolvereid and Stephan (2011); Engle, Dimitriadi, Gavidia, Schlaegel, Delanoe, Alvarado, He, Buame and Wolff, (2010); Gird and Bagraim (2008); Wiklund and Shepherd (2003); Krueger et al. (2000:411).
According to the TPB, there are several elements that determine entrepreneurial intention. These include perceived behavioural control, subjective norms and attitude towards the behaviour. The theory goes on to say that a favourable evaluation is one that eventually leads to an individual deciding to start a business. In addition to a favourable evaluation is also the capacity of the individual to undertake that task under consideration as well as the perceived capabilities of that person as well as the social pressure that comes with such an undertaking (Malebana and Swanepoel, 2015:89). Ajzen (2005:2012) highlights the significance of these antecedents of entrepreneurial intention. The author notes that these vary from population to population, from one person to another and the intention being investigated.

### 2.3.2 Antecedents of intention

Sommer and Sigmaringen (2011: 91) posits that perceived behaviour control, subjective norm and attitude possess material sound predictors of a desire as opposed to intention and self-predictions, or a hybrid of these intention-variants. On the other, intentions and self-predictions are better accurate to prognosticate behaviour than desire, whilst subjective norm poorly prognosticate intention (Armitage and Conner, 2001: 473).

On the other hand, Malebana (2012: 35) believes “attitudes towards the behaviour, subjective norms and perceived behavioural control have high level of accuracy to predict intention to engage in behaviours of various kinds”. A literature review on (TPB) determinants of intention is provided below:

#### 2.3.2.1 Attitude Towards the Behaviour

Murugesan and Jayavelu (2014: 261) argues that this construct concerns itself with subjective understanding of individualistic attractiveness of behaviour actualisation. Malebana (2012: 35) posits that attitude is the aftermath of perceived results emanating from behaviour actualisation. The estimate of the attitude towards a
behaviour is the aftermath of belief strength multiplied by the outcome evaluation (Sonja, 2009: 199). From the above, a conclusion is drawn that behavioural beliefs are the antecedents of attitude. Secondly, behavioural beliefs deal with the consequences of the act and an evaluation of the same.

2.3.2.2 Perceived Individualistic Norms

Individualistic norms relate to the perceived social influences or pressures to engage or not to engage in a behaviour (Al-Swidi et al., 2014: 1564). Subjective norms entail social support received from significant reference others or individuals (Santos and Liguori, 2020: 4). Significant reference others include family, close friends, mentors, and entrepreneurship faculty. When “subjective norms from important referents are positive, they will proactively facilitate access to different resources for the individual” (Malebana, 2012: 37). For example, “significant reference others may offer non-monetary resources as mentors, assist to establish important network linkages with subject-matter experts or key partners. These additional resources that come tight with a favourable subjective norm”. On the other hand, “when important referent individuals unveil reluctance of attitudes and exhibit concerns towards entrepreneurship, the effect of entrepreneurial self-efficacy on outcome expectations is lessen” (Santos and Liguori, 2020: 9).

In conclusion, “as prior research reports that subjective norms have significant effect on entrepreneurial intentions, this effect of subjective norms will still be present when considering the indirect effect of outcome expectations on the relationship between entrepreneurial self-efficacy and entrepreneurial intentions” (Kautonen et al., 2015: 655-647).

2.3.2.3 Perceived Behavioural Control

Perceived behavioural control is a measure of the individual’s perceived ability to perform a specified behaviour (Lorz, 2011: 25). The addition of the construct of
perceived behavioural control to the theory of reasoned action seeks to extend the usability of the model to situations where people are without wilful control of the contemplated behaviour (Ijzen, 2002:666). Perceived behavioural control is a function of control beliefs regarding the required resource availability and the ability to overcome the obstacles that might be encountered in the performance of behaviours (Malebana, 2012: 36). Perceived behavioural control overlaps with Bandura’s (1986) measure of perceived self-efficacy (Choudhary, 2017:67). Perceived behavioural control is subjective beliefs of one’s capabilities to actualise the contemplated behaviour, whereas self-efficacy refers to the ability to successfully perform the behaviour (Parkinson et al., 2017:415). According to Armitage and Conner (2001: 479), a distinction is accentuated by drawing a distinction between self-efficacy, perceived behavioural control and perceived control over behaviour. Self-efficacy refers to an unequivocal conviction about one’s attitude to realise the behaviour, perceived control over behaviour refers to perceived controllability of behaviour, and perceived behavioural control refers to the belief about the possibility or impossibility characterising the performance of the behaviour (Armitage and Conner, 2001: 479).

Self-efficacy measures have been utilised extensively within the discourse of the theory of planned behaviour and has yielded favourable proceeds (Armitage and Conner, 2001: 471-499). Ajzen (2001:48) posits that self-efficacy and behaviour controllability are important antecedents of individual's intentions to perform a behaviour.

Finally, Intention as a function of perceived behavioural control can entice behaviour. On the other hand, "intention as a function of perceived behavioural control can predict behaviour by serving as a proxy for actual control" (Ajzen and Cote, 2008:302). Malebana (2012:37) reports that “the effect of intention on the behaviour will be stronger when actual control is high as opposed to being low”.

2.3.3 Beliefs verses attitude, behavioural control and individualistic norms

According Ajzen and Driver (1991: 186), the theory of a planned behaviour argues that behaviour performance or non-performance is a function of salient beliefs about the behaviour. The salient beliefs are the antecedents of an individual's actions. These salient beliefs are understood to be behavioural convictions, normative convictions, and control convictions (Ajzen and Driver, 1991: 186).

2.3.3.1 Attitude and Behavioural Convictions Linkage

Behavioural beliefs connect the behaviour to the cost-benefit ratio of actualising the behaviour or yielding or withdrawal affective experience (Ajzen and Driver, 1991: 187). Behavioural beliefs are distinguished according to convictions about the inflows and outflows emanating from behaviour actualisation, namely, “instrumental convictions”, and convictions that bring about optimism or pessimism in relation to a particular behaviour to be performed, namely, “affective beliefs” (Ajzen and Driver, 1991: 187). Ajzen and Driver (1991: 187) argues that behavioural beliefs reflect diverse perceived mental proceeds or exposure.

2.3.3.2 Individualistic Norms and Normative Convictions linkage

Normative convictions refer to the likelihood that significant referent individuals or groups would approve or disapprove behaviour actualisation (Fang et al., 2017:3). According to Ajzen and Driver (1991: 187), the application of normative beliefs within the discourse of theory of planned behaviour entails that each normative belief’s strength is determined by a personal motivation to be compliant with the reference in question. The individualistic norm is directly proportional to the total resulting products across the normative convictions’ salient referents.
2.3.3.3 Behaviour Control and Control Convictions Linkage

Control convictions refers to a set of convictions that deals with the availability or scarcity of needed resources and opportunities (Ajzen and Driver, 1991: 188). On the other hand, control beliefs find their existence by way of one’s exposure to a desired behaviour. On the other hand, control beliefs are the influence of prior exposure of one’s social capital, including yielding or withdrawal factors on the contemplated perceived inconveniences of behaviour actualisation (Ajzen and Driver, 1991: 188). Put differently, the more resources and opportunities one believes to have, minimalistic hindrances and impediments one anticipates, the greater should be one’s perceived control over the behaviour. The application of control beliefs within the discourse of theory of planned behaviour states that “each control belief is multiplied by the perceived power of a given control factor to facilitate or inhibit performance of the behaviour, and the resulting products are summed across the salient control beliefs to produce the perception of behavioural control” (Ajzen and Driver, 1991: 188).

2.3.1.3 Efficacy of the Theory of Planned Behaviour

According to Armitage and Conner (2001: 489), support for the efficacy of the theory of planned behaviour as a predictor of intentions and behaviour in that Perceived behavioural control independently predicts intentions and behaviour in a wide number of domains. McEachan et al. (2011: 33), reported that theory of planned behaviour provides strong predictions of intention and behaviour across a range of behaviours. Iyuzhanin and Fisher (2015: 143) state that constructs theory of planned behaviour do not contribute equally largely and simultaneously to behavioural intentions, however, the model is a useful theoretical approach for predicting the intention to perform a behaviour. Sonja (2009: 206) reports that theory of planned behaviour can predict individuals’ intention to perform behaviour.

However, some scholars have reported fundamental limitations of the theory. Sniehotta et al (2014: 2) reports that the balance between parsimony and validity has been questioned. The model is not without opposition as a result of it inherent focus
on reasoning and its neglects of unintended influences on behaviour and the role of impulse beyond contemplated affective yields (Sheeran et al., 2013: 460–473). Finally, Orbell and Sheeran (1998:151–165) report that “the measures of theory of planned behaviour neglect to account the majority of variability observed”.

### 2.3.4 Shapero and Sokol’s Model of Entrepreneurship Event (SEE)

Entrepreneurial Event’ (SEE) is tacitly an “intention model, specific to the sphere of entrepreneurship” (Krueger et al., 2000: 418). The entrepreneurial event refers to initiative-taking, consolidation of resources, management, relative autonomy and risk-taking (Rai and Prasad, 2017:2). The entrepreneurial intention is characterised by initiative-taking, consolidation of resources, management of the organisation, relative autonomy and risk taking (Lakovleva and Kolvereid, 2009:68). Adopting this line of thought, it could be concluded that entrepreneurial event refers to concern the formation of a new business venture. Lakovleva and Kolvereid (2009:68) argues that the inheritance of a business falls within the definition of entrepreneurial event. Entrepreneurial Event (SEE) postulates that “inertia dictates human behaviour until something interrupts or displaces that inertia” (Krueger et al., 2000: 418).

The choice of behaviour is a function of the relative ‘credibility’ of alternative behaviours to the individual, and “some propensity to act, without which important action may not be taken” (Krueger et al., 2000: 418). Credible behaviour is a function of both desirability and feasibility (Krueger et al., 2000: 418). The perceived desirability refers to subjective beliefs of desirability of the behaviour affected by personal subjective attitudes, values, and feelings. Perceived feasibility measures the individual’s personal perceived ability to execute specific behaviour. Propensity to realise behaviour is a product of attitude to act on one’s resolves and shows volitional aspects of intentions (Riverola and Giones, 2012:5). The model is illustrated in Figure 3 below.
2.3.5 Theory of Planned Behaviour – Shapero’s Entrepreneurial Events Model

Krueger et al. (2000:219) assumed a “rather significant undertaking of consolidating the theories of intention by testing both the theory of planned behaviour and Shapero and Sokol’s Model of Entrepreneurship Event” (Iakovleva and Kolvereid, 2009:68). Krueger (1993) proposed that attitude in the theory of planned behaviour encompasses the notion of perceived attractiveness in the SEE model (Iakovleva and Kolvereid, 2009:70). Krueger (1994:1) reported that “individualistic norm of TPB overlaps with the concept of attractiveness and achievability of SEE, and that feasibility of SEE overlaps with perceived behavioural control of TPB” (Sommer and Sigmaringen, 2011: 91). An argument is put forward in Bagozzi (1992) that “attitudes are first translated into desires, which then developed into intentions to act and then into behaviour” (Iakovleva and Kolvereid, 2009:70). Armitage and Conner (2001: 479) hold that intentions are a function of desires and partly a function of behavioural self-predictions.

Iakovleva and Kolvereid (2009) attempted to integrate some parts of the TPB and SEE. The hybrid of mental disposition, individualistic norms and perceived behavioural autonomy have a significant bearing on intentions through attractiveness and achievability (Iakovleva and Kolvereid, 2009:70). Put differently, “attractiveness and achievability are functions of mental disposition, individualistic norms and perceived behavioural autonomy, whereas Intention is a function of attractiveness and
achievability” (Iakovleva and Kolvereid, 2009:70). Figure 4 represent Iakovleva and Kolvereid (2009) integrated model of entrepreneurial intentions.

![Diagram](image-url)

Figure 4: Iakovleva and Kolvereid (2009) integrated model of entrepreneurial intentions.

### 2.4 RURAL SCHOOLS – BACKGROUND AND DEFINITION

A universally accepted definition of the concept ‘rural’ does not exist (Couper, I. 2003: 1). Affluent countries define ‘rural’ along the lines of size of populace and proximity to town in contrast with less affluent nations where such barometer is less effective (Couper, I. 2003: 1). In Malebana (2020: 2) the term rural is defined as any geographical area that is predominantly a tribal area. StatsSA (2004:1) states that classification of areas in South Africa in ‘urban’ and rural at its infant stage. According to Brettenny and Sharp (2016: 14) rural areas are categorised according small towns, significant urban population (B3) and mainly rural, one or two small towns (4). The study population resides in both B3 and B4 areas.

Rural schools are characterised by a plethora of negative factors that impair the quality of education (du Plessis, 2014: 1109). The negative factors range from lack of basic infrastructure to information and communication technology and poor socio-economic conditions (du Plessis, 2014: 1109). Furthermore, rural schools lack proper governance structures, and technologically advanced learning and teaching tools. It is
for this reason that the study seeks to investigate the entrepreneurial intention of students in rural areas.

2.5 CONCLUSION

This chapter presented several theories, models and concepts relating to entrepreneurial intention. These sought to explain the motivation which leads to people starting businesses. The main conclusions are that usually entrepreneurial propensity is induced by a plethora of motivating factors which include social, capital, opportunity, capacity and propensity to take risks. Finally, the study explored and defined the term ‘rural’ and its relevance to the current study. The next chapter looks at the concept of entrepreneurial intention in detail as well as its interplay with social capital is presented.
CHAPTER 3: SALIENT FEATURES OF ENTREPRENEURIAL INTENTION

3.1 ENTREPRENEURIAL INTENTION AND SOCIAL CAPITAL

3.1.1 Introduction

Entrepreneurship is entrenched in networks of perpetual social relations, whereas networking serves an enabler for entrepreneurs to be exposed to knowledge of opportunities and to have access to critical resources (Urban, 2011:1). Entrepreneurship is a function of entrepreneurial intention, and in turn, entrepreneurial activity is an intentionally planned behaviour (Rauch and Hulsink, 2015: 188-192). Klyver and Terjesen (2007:682-688) argue that entrepreneurial intentions are influenced by various factors including where social capital is considered. Social capital refers to the “sum of the actual or potential resources emanating from possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (Ihlen, 2005:492). The first introduction of the term into academic domain can be traced to Pierre Bourdieu (1986:1), whereas Putman (1993) is construed to have popularised the term among social scientists and attracted the attention of researchers and policymakers (Bhandari and Yasunobu, 2009:9).

Juxtaposing social capital with entrepreneurial intentions has been the area of interest in literature (Anderson and Miller, 2003:1-4). Social capital has fundamental impact in the start-up process of an entrepreneurial activity (Ali and Yousuf, 2019:3). The enjoyment of deep social ties in relation to the contemplated locality facilitates a process of fortifying important opportunities (Ali and Yousuf, 2019:3). Aldrich and Zimmer (1986:3-19) argue that securing strong social ties increases the possibility of opting for entrepreneurial behaviour, hence nascent entrepreneurs are prone to start the businesses in their locality of birth or where they are well known.

The rational of this section is to explicate the relationship between entrepreneurial activity and social capital in the formation of new businesses and the general inclination to start new ventures. Moreover, trade-offs between social networks and
social capital will be discussed. The literature related to the two concepts is also presented and analysed. The constructs of social capital and the yields of social capital, such as access to resources which enables success, survival and growth of new venture are given attention. Finally, the chapter concludes with the juxtaposition of social capital and entrepreneurial intention.

3.1.2 Definition of Social Capital

Although authors such as D'Aveni and Kesner (1993: 123-151); Burt (1992:1) and Bourdieu (1986:1) agree on the importance of relationships as a resource for social action, they lack consensus on the exact definition of social capital (Nahapiet and Ghoshal, 1998: 242-266). A comprehensive conceptualisation views social capital as not only social relationship but also constructs such as norms and values associated with them (Liao and Welsch, 2005:346). In the pursuit to conceptualise social capital, Liao and Welsch (2005:346) warns against defining and operationalizing social capital as a one-dimensional rather than multidimensional construct (putting greater emphases on network or structural component). Table 3 represents definitions of social capital extant within the framework of entrepreneurship literature.
### Table 3: Definitions of social capital extant within the framework of entrepreneurship literature

<table>
<thead>
<tr>
<th>Source</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bourdieu (1986 in Bhandari and Yasunobu, 2009:9)</td>
<td>The “sum of the actual or potential resources that are associated with the possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition”.</td>
</tr>
<tr>
<td>Coleman (1988 in Coleman 1988:98)</td>
<td>Is “a variety of different entities with some aspect of social structure and all facilitate certain actions of actors”.</td>
</tr>
<tr>
<td>Bhandari and Yasunobu (2009 in Bhandari and Yasunobu, 2009:9)</td>
<td>A &quot;multidimensional phenomenon involving a stock of social norms, values, beliefs, trusts, obligations, relationships, networks, friends, memberships, civic engagement, information flows, and institutions that foster cooperation and collective actions for mutual benefits and contributes to economic and social development”.</td>
</tr>
<tr>
<td>Putnam (1993 in Hoffman et al., 2005:95)</td>
<td>Social capital is akin to a moral resource</td>
</tr>
<tr>
<td>Woolcock (1998 in Johnson, 2013:325)</td>
<td>The &quot;stock of information, trust and norms of reciprocity inhering within social networks&quot;.</td>
</tr>
<tr>
<td>Lee and Jones (2014 in Lee and Jones, 2015:339)</td>
<td>An abstract resource embedded on goodwill that is enjoyed by way of belonging to a network which facilitate effective knowledge sharing and brainstorming of new ideas or opportunities.</td>
</tr>
<tr>
<td>Portes (1998 in Hazleton and Kennan, 2000:81)</td>
<td>Is based on the fundamental assumption that group involvement and participation yield benefits to individuals and groups.</td>
</tr>
<tr>
<td>Burt (1996 in Lin and Huang, 2005:193)</td>
<td>The “pattern of interconnection between the various people with whom each person is tied”.</td>
</tr>
</tbody>
</table>
From Table 3, it evident that there are several definitions of social capital. For Bourdieu (1986:1), “social capital is a sum of the actual or potential resources that are associated with the possession of a durable network of institutionalised relationships of mutual acquaintance and recognition” (Bhandari and Yasunobu, 2009:9). This definition advocates for the fact that individuals and groups accrue benefits from their social capital, although this does not mean that the benefits are consciously pursued (Seferiadis, 2016:41). In Coleman’s conceptualization a combination of entities configured according to a social structure with the intent of enabling certain contemplated behaviours of actors (Coleman, 1988:98).

3.1.3 Components of Social Capital

The conceptualization of structural, cognitive, and relational social capital framework was funded by Nahapiet and Ghoshal (Claridge, 1998: 242-266). According to Claridge (2018:1) the constructs of social capital framework provide useful conceptual distinctions for analytic convenience, however the interrelations between these dimensions are of complex nature. The following paragraphs discusses in more detail, dimensions of social capital, namely structural, cognitive and relational dimensions. Figure 5. represent social capital framework.
3.1.3.1 Cognitive Component of Social Capital

The cognitive component entails a stock of enablers that bestow common representations, interpretations, and systems of meaning among parties (Nahapiet and Ghoshal, 1998:244). Claridge (2018:3) posits that the initial conceptualisation of cognitive social capital, which was confined to shared language and shared narratives, has since been broadened to include shared goals or vision, and shared culture. Muniady et al. (2015:4) view cognitive social capital as the embodiment of common visions and shared goals of organizational partners. Cognitive social capital is subjective and intangible in nature, with the resultant dual effect of cooperative behaviour and collective action (Liñán and Santos, 2007:446). Cognitive social capital, extends to cognitive networks, created in individuals’ minds as thoughts, desires and ghosts tie in the absence of actual ties (Malebana, 2016:58).
The cognitive social capital concomitant with entrepreneurial intention “originates both from the close contact with relatives or friends, called bonding cognitive social capital, and from random contacts with other people or organizations, called bridging cognitive social capital” (Liñán and Santos, 2007:447). Entrepreneurial behaviour is a product of actualisation of various behaviours under the auspices of both strong and weak ties (Malebana, 2016:58). Entrepreneurial behaviour is effectively created through the creation of relationships that enable access to resources inherent in social networks (Malebana, 2016:58). Concluding his thoughts, Malebana (2016:58) argues that through the establishment and maintenance of relationships with various networks yield enhanced knowledge acquisition, strengthens access to resources and quality of information and opportunities.

3.1.3.2 Relational Component of Social Capital

The relational component relates to the “kind of personal relationships individuals have developed with among the network members” (Nahapiet and Ghoshal, 1998:244), manifest in durable or shaky ties (Malebana, 2016:57). This component embodied in features and qualities of individual network include shared history, trust, cordiality, and friendship (Muniady et al., 2015:4). Relational social capital enables individuals to volition sharing of confidential and tacit intelligence within the membership of the network (Malebana, 2016:57). Relational social capital connects “network members to exchange and amalgamate resources in anticipation of value, and to create motivation to engage in knowledge creation through these exchanges and combinations” (Nahapiet and Goshal 1998:244).

3.1.3.3 Structural Social Capital

The “structural dimension of social capital concerns the structure of the social network and involves aspects such as the quantity of relationships an individual has created and the frequency of interaction among social network members, the strength of ties, the denseness of relationships and connectivity of social ties” (Nahapiet and Ghoshal, 1998:244). The structural social capital manifest in a form of strong ties or weak ties (Malebana, 2016:57). Explaining these ties, Malebana (2016:57) states that “strong
ties (bonding social capital) consist of parents, close friends and neighbours who are in business, including encouragement by the family and close friends, whereas weak ties (bridging social capital) consist of membership in organisations, contacts with community agencies, business networks and friendships with other business persons”. Entrepreneurial intention formation is the result of durable and nondurable social networks (Malebana, 2016:57).

3.1.4 Social Capital Juxtaposed with Entrepreneurial Intention

3.1.4.1 Social Capital influence on Entrepreneurial Intention

Ali and Yousuf (2019:11) studied the social capital and entrepreneurial intention relationship in the context of Pakistan, where 325 respondents were taken through thorough field surveys. The study findings suggest that social capital plays an important role in cultivating entrepreneurial intention. The combination of social capital and entrepreneurial intention is an effective impetus of the actualisation of entrepreneurial behaviour (Ali and Yousuf, 2019:11).

In Indonesia, a study was conducted among 215 polytechnic students aiming to come up with a structural model for entrepreneurial intention. The study involved the interplay of entrepreneurial disposition, social capital, and mental capital. The study concluded that a collaborate effort of entrepreneurial disposition, social capital, and mental capital impact on entrepreneurial intention of polytechnic students (Mahfud et al., 2020:38).

In Peninsular Malaysia, a study was conducted by Muniady et al (2015:8), which examined the effect that relational and cognitive social capital had on structural social capital and the effect that structural social capital had on the performance of micro-enterprises owned and managed by women. The study revealed that there was a positive effect of cognitive social capital on structural social capital (Muniady et al, 2015:8). The study noted a significant effect of structural social capital on micro-
enterprise performance (Muniady et al, 2015:8). Cognitive social capital plays a significant role in connecting business community, and, thereafter, the quality of the resultant business relations (Muniady et al, 2015:8).

In contrast, a study that involved 113 university business students in Turkey was conducted. The study aimed to investigate the existence of a potential difference with respect to gender and social capital on entrepreneurial intention (Karadag, 2018:1). Among other findings, it was found that bonding social capital is not a major influencer of entrepreneurial intention (Karadag, 2018:7).

3.1.5 Conclusion

This chapter looked at the relationship between entrepreneurial intention and social capital. There are several conclusions that were drawn in the chapter. For example, it emerged that entrepreneurship is a planned behaviour not something that happens by accident. Secondly, it also emerged that social capital refers to far more than resources but also relationships and networks that might collectively convince someone to believe that they have entrepreneurial capacity. However, the primary focus of the chapter was on the relationship between entrepreneurial intentions and social capital. The research findings indicate that there is a positive correlation between access to social capital and inclinations towards entrepreneurship. To demonstrate the significance of social capital, the authors also observed that entrepreneurs tend to start their ventures in areas that they have stayed in for a long time.

3.2 ENTREPRENEURIAL INTENTION AND ENTREPRENEURSHIP EDUCATION

3.2.1 Introduction

In the previous sections, the model of entrepreneurial events was discussed, which revealed two constructs of entrepreneurial intentions, namely, perceived desirability and perceived feasibility. The objective of this segment of literature review is to
explicate the effect of entrepreneurship education provoking entrepreneurial intention. It is the researcher’s belief that an appropriate approach entails broadening the scope of literature review of entrepreneurship education to include both international and South African authoritative perspectives. The question to be explicated by this section of the research is whether entrepreneurship education, (1) influences entrepreneurial intention and, (2) assist in developing of entrepreneurial skills, competencies and self-efficacy. The approach entails researching the following (Table 4):

Table 4: Focus areas of Entrepreneurship education

<table>
<thead>
<tr>
<th>Focus Areas</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus Areas 1</td>
<td>Ascertaining whether education cultivate entrepreneurial activity</td>
</tr>
<tr>
<td>Focus Areas 2</td>
<td>Historical development of entrepreneurship as subject of research</td>
</tr>
<tr>
<td>Focus Areas 3</td>
<td>Issues of objectives of entrepreneurship education.</td>
</tr>
</tbody>
</table>

Source: Researcher

3.2.2 Definition of Entrepreneurship

There is not a universally shared and consistent definition of the entrepreneurship theory (Virtanen, 1997:2). Ahmad and Seymour (2008:6) support this view and posits that there appears to be no single definition or concurrence of what entrepreneurship is. This scarcity of universal definition is attributed to diversity of traditions of different disciplines within the field of entrepreneurship research, such as anthropology, sociology and psychology (Ahmad and Seymour, 2008:6). The variety of extant definitions is the function of proliferation of subsidiaries of entrepreneurship research, such as corporate entrepreneurship, entrepreneurship and venturing (Ahmad and Seymour, 2008:6). Seth (2020:36) confirms that entrepreneurship research overlaps various disciplines such as sociology, psychology and economics. In the early work of Cantillon, entrepreneurship is defined as economic activity that derives uncertain profit from the interaction of known buying price and unknown selling price (Iversen et al., 2008:4; Hebert, 2015:42). Parker (2009:2) places importance in divorcing entrepreneurship and entrepreneurship intention, whereby, the former is defined as
creating a new venture outside an existing organisation, whereas the latter is concerned with creating a machinery within the extant organisation with a view of exploiting new opportunity and create economic value. Cole (1968) conceptualised entrepreneurship as an activity embarked upon with an aim of establishing, maintaining and developing a profit generating venture (Rusu, Isac, Cureteanu and Csorba, 2012: 5373). Gartner (1985) agrees with a notion that entrepreneurship metamorphosed to a new profit business (Rusu et al, 2012: 5373). Ducker (1985) takes the discourse a notch up and defines entrepreneurship as an innovative activity that endows upon extant resources as an ability to create wealth (Rusu et al, 2012: 5373). Seth (2020:36) believes that entrepreneurship is creation of a new innovative business venture. In Wilson (2008:2), the concept of entrepreneurship is understood to mean deliberate pursuance of economic opportunities beyond the resources currently controlled.

While the literature proves a lack of universal definition of entrepreneurship, there seem to be a consensus that entrepreneurship germinates into new venture from which a profit is realised.

The current thesis is building from the forgoing definitions of entrepreneurship to introduce a concept of entrepreneurship education. Seth (2020:38) employs the assistance of entrepreneur noun to define the phenomenon of entrepreneurship education and posits that entrepreneur refers to an individual who has impacted by entrepreneurship education and characteristics thereof. The forthcoming paragraphs explore the concept of entrepreneurship education in more detail.

3.2.3 Historical Entrepreneurship Research Development

The previous paragraphs revealed that the field of entrepreneurship is characterised by a remarkable heterogeneity of definition of entrepreneurship. Researchers have proclivity of conceptualising entrepreneurship on the bases of their discipline (Filion, 1997:2). This section seeks to explain entrepreneurship research development using the premise of economists and behaviourists standpoints.
3.2.3.1 The Economists' Standpoint

Whilst the popular view suggests that entrepreneurship owes its origin from science of economics, the critical analysis of the two pioneers (Cantillon, 1755 and Say, 1803) of entrepreneurship field reveals that the early literature considered management, business development and business management as important part of entrepreneurship research (Filion, 1997:3).

Verin (1982) posits that the historical origins of the term “entrepreneur” is located in the late 17th and early 18th centuries (Rusu, Isac, Cureteanu and Csorba, 2012:5371). Filion (1997:3) believes that the work of Cantillon (1755) pioneered a clear conceptualisation of entrepreneurship despite the term having preceded him.

Jean-Baptiste Say is said to be the second person to have an interest in entrepreneurship (Malebana, 2012:98). Say (1815) suggested that the antecedent of economic development is a function of entrepreneurship (Filion, 1997:3). Say (1815) viewed entrepreneur as a risk taker, premising this view on the notion that entrepreneur invest money without certainty of recouping the money (Filion, 1997:3). This view supports the earlier proposition of Cantillon (1755) where entrepreneur process is outlined from its founding stage of securing raw material at a certain price with a view of processing it and reselling it at an uncertain price (Iversen, et al., 2008:4). Say (1815, 1816) proposes that entrepreneurship ought not to be viewed as a synonym of capitalism (Filion, 1997:3). Capitalism occurs upon full return of the original sum invested in the profit-making venture (Smith, 2017:1).

Schumpeter (1928) took a shift from the views of earlier pioneers of entrepreneurship research, when he introduced the element of innovation (Filion, 1997:4). Economists such as Higgins (1959) and Leibenstein (1978) have found resonance with the concept of innovation and entrepreneurship (Filion, 1997:4).

The economists’ contribution to entrepreneurship research is not without criticism. Amongst criticism levelled against economists is their inability to bring about evolution to economic science (Filion, 1997:4). It is no surprise that the entrepreneurship
community has sought assistance from behaviourists to gain broad knowledge to entrepreneurs’ deportment (Filion, 1997:5).

3.2.3.2 The Behaviourists' Standpoint

Behaviourist paradigm assert that behaviour is viewed as a reaction of an organism to stimuli in a situation (Byrne and Toutain, 2012:6). The behaviourist perspective on entrepreneurship education is one of the two most dominant learning paradigm (Kozlinska, 2016:9). This thesis confines the concept “behaviourists” to anthropology, sociology, psychology and other germane human behaviour specialists.

McLelland (1971) developed a psychological theory which hinges on the personal traits, need for achievement, motives and incentives of the “would-be entrepreneur (Virtanen, 1997:4). McLelland (1971) defines entrepreneurship as an individual who undertakes production not for his personal imbibing (Filion, 1997:5). McLelland extended his theory to associate entrepreneurship with need for power (Filion, 1997:5). As the aftermath of McLelland (1971), behaviourists assumed domination of entrepreneurship field for two decades, ending early in the 1980s (Filion, 1997:5). Evolution of this theory is found in Low and MacMillan (1988), according to which entrepreneur is understood to possess a strong internal control (Virtanen, 1997:4).

3.2.4 Defining Entrepreneurship Education

A conceptualisation of the phenomena is necessary for full comprehension of a discourse (Gautam, 2015:22). In reviewing the extant literature, interesting heterogeneous school of thoughts and lack of universal definition of entrepreneurship education has been found. Seth (2020:38) posits that there is lack of concise conceptualisation of entrepreneurship education. Jones and English (2004), cited in Gautam, (2015:22) defined entrepreneurship education as referring to a process of empowering an individual with a commercial opportunity-recognising know-how and insight and skills to exploit them. Hood and Young (1993), cited in Seth (2020:38)
defined entrepreneurship education as an educative process on profit generating venture creation which contributes to economic development. Fayolle, Gailly and Lassas-Clerc (2006b:702) define entrepreneurship education as consisting of any process of education or pedagogical course aimed at imparting entrepreneurial attitudes and know-how.

3.2.5 Chronological History of Entrepreneurship Education

According to Katz (2003:286), entrepreneurship education was initially introduced in the work of Francis Walker (1876 and 1884) through his work titled “The Wages Question”. Hatch and Schumpeter (1887 and 1911) created agricultural experimental stations and the theory of economic development (Katz, 2003:286). In Asia, Shigeru Fijii, in 1938 began teaching entrepreneurship education (Chimucheka, 2014:404). During 1941, American Senate appreciated the importance of entrepreneurship and put in place a special committee which was to be seized with a responsibility of studying challenges impacting on entrepreneurial ventures (Katz, 2003: 286). An important development in entrepreneurship education took place in 1946, where Schumpeter and Cole established the Research Centre for entrepreneurial History (Katz, 2003:286). Following this unprecedented development, in 1947, Harvard introduced the first MBA entrepreneurship course (Katz, 2003: 286).

Other institutions of higher learning such as New York University (1953), Stanford (1954 and 1967), Babson College (1968) and University of Southern California (1972) introduced entrepreneurship courses (Katz, 2003:288). Fast forward, between 1982 and 1992, entrepreneurship education secured acceptance in other education fields such as marketing and engineering (Katz, 2003:289). Contemporary developments in entrepreneurship education domain includes EGOPHER (1993) as the first internet site and various entrepreneurship journals which are devoted exclusively to entrepreneurship education (Katz, 2003:290).
3.2.6 Revolution and Radical Entrepreneurship Education

The social change calls for an approach that is revolutionary and even radical in nature (Filion and Dolabela, 2007:13). From entrepreneurship lenses, social system needs to institutionalise the bottom up and structural change (Filion and Dolabela, 2007:13). Entrepreneurship education must seek to bring about a crop of entrepreneurs that possess internal locus of control and self-efficacy (Filion and Dolabela, 2007:14). Contemporary entrepreneurship education domain is transcending other fields such as Economics, Psychology, Sociology, Engineering and Management Science to mention but the few (Bechard and Gregoroire, 2005, 22-43). Notwithstanding the above, a critical question is found in the thesis of Malebana, 2012:99), which seeks to understand the teachability of entrepreneurship. It will seem, however, that the work of Fayolle (1999, 2003 and 2004) was seized with this question and concluded that entrepreneurship can in fact be taught and be integrated into a social system (Filion and Dolabela, 2007: 14). While entrepreneurship has long been viewed as an isolated and individualistic phenomenon, ample evidence is surfacing to suggest that this phenomenon encapsulates social values and culture (Julien, 2005:1). Adopting this entrepreneurship perspective opens up fresh ways to inculcate learning that facilitate skills acquisition that does not conform to extant social structures and cultural stereotypes (Filion and Dolabela, 2007:14). This new perspective of entrepreneurship education represents a revolutionary approach to the pedagogy of development which dismisses the efficacy of the extant pedagogy of the status quo (Filion and Dolabela, 2007:14). Revolutionary approach to the pedagogy of development put forward a business case for the discontinuation of social order which seeks to institutionalise social roles that envelope the poor and uneducated to their current plight (Filion and Dolabela, 2007: 14).

3.2.7 The Distinction Between Entrepreneurship Education and Business Education

According to Hansemrk (1998: 28-50), entrepreneurship education is concerned with bringing about change of attitudes and motives. The contribution of Slavtchev, Laspita and Patzelt (2012:3) to the discourse of entrepreneurship education propound that the phenomenon is concerned with strengthening of consciousness of
entrepreneurship as a contending career to employment. Whereas early work of Jamieson (1984: 19) argues that entrepreneurship education is a vehicle used to engender skills, knowledge, and attitude necessary for individuals to producing socio economic returns and solving socio economic challenges. A fascinating perspective is brought to the fore by Matlay and Mitra (2002:13) wherein entrepreneurship education phenomenon is multidimensional (i.e., awareness creation, the preparation of want-to-be entrepreneurs for innovation, and training for established entrepreneurs in area of growth and development). According to Garavan and O’Cinneide (1994a: 3-12), entrepreneurship education is centred on the concept of self-reliance.


It is categorical from paragraphs above that the two phenomena are mutually exclusive. The diverse yet similar perspectives on entrepreneurship education shares a common denominator to that of awareness creation, changing attitudes and innovation centric motives. On the other hand, business education focuses exclusively on transformation of established business administration knowledge.

3.2.8 Multidimensionality of entrepreneurship education

Matlay and Mitra (2002:13) and Liñán (2008:257-272) suggest quad categories of entrepreneurship education, each category providing milestone relevant therein. These categories are:
a) Entrepreneurial awareness education: The aim of this education is “to expand the pool of persons who are likely to consider self-employment as a sound and attractive alternative” (Malebana, 2012:119). The “focus of this education is mainly on the creation of awareness of entrepreneurship as opposed to entrepreneur creation” (Malebana, 2012:119). Liñán (2004:10) posits that optional entrepreneurship modules within the business and engineering formal qualification illustrate this awareness creation of entrepreneurship. This category of entrepreneurship does not create automatic entrepreneurs; however, it provides a rather enhanced perspective to entrepreneurship as a viable alternative to employment (Guzmán and Liñán, 2005:7). Education about enterprise champions ideals with self-employment, enhances levels of consciousness to entrepreneurship, and increases credibility to this alternative career (Jones and Iredale, 2014:8). Gautam (2015:25) believes that this education is a key agent of social and economic change.

b) Education for start-up: This education is concerned with start-up (Guzmán and Liñán, 2005:7). This education promotes start-up and other ventures (Raposo and Paço, 2011:455; Alberti, Sciascia and Poli, 2004:9).

c) Continuing education for existing entrepreneurs: This education category is concerned with continuous business education for small business owners, aimed at improving extant entrepreneurs’ capabilities (Guzmán and Liñán, 2005:8).

d) Education for dynamism: This education category is not only concerned with the enhancement of entrepreneurial intention, but also developing dynamic entrepreneurship post venture creation (Guzmán and Liñán, 2005:8).

Figure 6 illustrates the different types of entrepreneurship education, the role that each of them play in the entrepreneurial process (Guzmán and Liñán 2005:7).
A similar perspective to that of Guzmán and Liñán (2005:7) is found in Jamieson (1984) cited in Maleban (2012:119), wherein the following categorise are suggested:

a) Education about enterprise, which is often done as an additional module, and is about creating awareness through educating learners on aspects of business start-up and running of a business.

b) Education for enterprise, which is targeting prospective entrepreneurs, administered with a clear purpose of building a business for entrepreneurship as credible alternative to employment.

c) Lastly, “education in enterprise which is mainly for extant entrepreneurs and administered to enhance managerial skills and expose extant entrepreneurs to future business opportunities”.

It will be seen that there is a clear congruence between the two perspectives as outlined above. Entrepreneurial awareness education of Guzmán and Liñán (2005) is similar to awareness of Jamieson (1984:120), i.e., Education for enterprise (Jamieson 1984: 120) harmonising with education for start-up (Guzmán and Liñán, 2005:7), while education in enterprise (Jamieson, 1984:120) is similar to continuing education for
existing entrepreneurs (Guzmán and Liñán, 2005:7). Both authors' conceptualisation hinge on the idea of continuous business education. Guzmán and Liñán (2005:7) has failed to provide clear distinguishing factors of dynamism to continuing education for existing entrepreneurs (Malebana, 2012:121).

3.2.9 Dominating Discourse of Entrepreneurship Education

Alberti, Sciascia and Poli (2004:4) identified key issues in entrepreneurship education as, 1) Diversity of audience and goals, 2) Content, 3) Pedagogies, and 4) Assessment. On the other hand, Liñán (2004:11-35) posits that the six key issues pertaining to entrepreneurship education are, 1) Objective being pursued, 2) Beneficiary faculty or team, 3) Participants, 4) Course content, 5) Pedagogies, 6) Support for entrepreneurial behaviour. The following paragraphs will extend further on these key issues to reveal their importance in entrepreneurship education discourse.

3.2.9.1 The Objectives of Entrepreneurship Education

Different entrepreneurship education courses possess different goals ranging from immediately measurable to general and to complex goals (Alberti et al., 2004:9). The establishment of a basket of goals of entrepreneurship education provides an opportunity to comprehend educational needs as well as necessary pedagogical methods (Alberti et al., 2004:9). According to Alberti et al. (2004:9), the prevalent goals of entrepreneurship education are:

a) Acquisition of entrepreneurship knowledge: This goal relates to learning of alternative ways of recognising new business opportunities, resources and constraints (Alberti et al., 2004:9).

b) Technique usage, business situation analysis and synthesis of action plans skills: The fundamental of this goal of entrepreneurship education entails enhancing know-how and knowledge synergy in areas of accountancy, marketing and general management (Alberti et al., 2004:9).

c) Identification and enhancement of entrepreneurial drive, aptitude and skill: The goal of this aim entails awakening of individual’s awareness of entrepreneurial
possibilities and providing necessary support in awareness development with respect to interests, capabilities and potential (Alberti et al., 2004:10).

d) To reverse the risk-adverse bias of many analytical techniques: This objective is concerned with providing education centred on best technique to abate risk, extinguishing favouring risk-aversion as opposed to traditional education that leans towards arithmetic extrapolation and procrastinating until such time as data becomes conclusive (Alberti et al., 2004:10).

e) To develop “empathy and support for the unique aspects of entrepreneurship”: Alberti et al. (2004:10) posits that some segment of individuals engage in entrepreneurship education with no intention of ever applying the acquired knowledge to forming an entrepreneurial venture.

f) To revise attitudes towards change: Entrepreneurship in this instance favours emotional learning as opposed to cognitive learning. This entails empowering individuals with skills to best influence their span of control to be innovative (Alberti et al., 2004:10)

g) To encourage new start-ups and other entrepreneurial ventures: The entrepreneurship education in this instance is targeting aspiring entrepreneurs, focusing on direct stimulus for new venture creation, and the enhancement of self-employment as be best alternative of employment (Alberti et al., 2004:10).

h) To enhance affective socialization element: Entrepreneurship education in this instance is designed to inculcate subjective dispositions, values, mind-sets and manoeuvring plans to best perform entrepreneurial behaviour (Alberti et al., 2004:10).

In summary, it appears from the above discussion that entrepreneurship education aims at developing entrepreneurship competencies which are necessary, on one hand, for start-ups and other entrepreneurship venture, and on the other hand, for extant entrepreneurs who seeks to be equipped with competencies of identifying new business opportunities.
3.2.9.1 Entrepreneurship Education and Research Challenges

Entrepreneurship education has been studied through the lenses of traits and characteristics of entrepreneurs (Ahmed, 2019:1). While there is a plethora of characteristics of entrepreneurs dealt with by the extant literature, motivation and determinants, thereof, have found prominence in my studies (Shane, Locke, and Collins 2003:4:3). Researchers such as Dawson and Henley (2012:697) make a distinction between push and pull motivation. While Hessels, Gelderen and Thurik (2008:325) coins this distinction as “opportunity or necessity” motivation. Pull or opportunity motivation refers to a scenario when entrepreneurship becomes a function of an opportunity arisen, on the other hand, the push theory refers to a scenario when entrepreneurship is a function circumstance (Dawson and Henley 2012:697). Other traits include educational achievements, existence of family business and entrepreneurial frame of reference (Ahmed, 2019:7). Dominating the discourse of entrepreneurship education is opportunity recognition and opportunity-based entrepreneurship (Shane and Venkataraman, 2000:217-226). Other topics which have found interest of researchers of entrepreneurship education include goal formulation, goal attainment aspirations, risk appetite, appetite for ambivalent environment and self-efficacy (Vanevenhoven, 2013:467).

Vanevenhoven (2013:467) posits that the study of entrepreneurship education needs to microscope the efficacy of diverse contextual methodologies used for entrepreneurship pedagogical programs. Verzat et al. (2016:2) found that effective education programs necessitate educators to adjust their educational approaches throughout the learning journey of learners; and create a learning community along with the students. Vanevenhoven (2013:467) contrasted the works of McNally, Martin, and Kay (2010) and Weaver, Dickson, and Solomon (2006) and found incongruent views wherein positive and negative findings of entrepreneurship education were reported. Positive findings reported an increased optimism and positive impact of entrepreneurship skilling on entrepreneurship intention (Vanevenhoven, 2013:467). On the other hand, work of Graevenitz, Harhoff, and Weber (2010) found that entrepreneurship education results in low intention to start entrepreneurial venture and
flabbergasting increase in learners’ self-assessed entrepreneurial skills (Vanevenhoven, 2013:467).

From a business context, there is evidence that while educators tend to base their curricula from their growing up experience, there is also evidence that they tend to consult other stakeholders like independent business owners (Penaluna, Penaluna, and Jones 2012:163-175). This has resulted in some variation on the type of information and definitions that are given in literature. This justifies the calls that there should be a common language on entrepreneurship education.

### 3.2.9.2 Entrepreneurship Education and Teaching Challenges

One of the findings on literature about entrepreneurship is that it is a collection of traits and competencies that can be taught (Kuratko, 2003: 12), while some authors like Ronstadt (1987) have suggested that in the entrepreneurial methodology and pedagogical framework (Kuratko, 2003: 12), there are persistent gaps between the recommendations from literature. Some authors have noted that there is even disagreement on what needs to be taught in entrepreneurship classes (Kuratko, 2003: 12). Even the teaching methods that are supposed to be employed remain contested.

Neck and Greene (2011: 55) agree that there are numerous approaches on how to learn entrepreneurship and all of them have little in common. Considering that students tend to read and learn at different rates, are motivated by different things, approach the class with different levels of understanding and comprehension, have varying motivations to learn and access to different social networks all compound the problem of teaching entrepreneurship (Neck and Greene, 2011: 55). This is not at all made easy by the fact that educators tend to have different capabilities of teaching the subject, different access to teaching resources and different levels of capabilities when it comes to teaching (Neck and Greene, 2011: 55).
While there are all these huge variations, there is still a significant increase in entrepreneurship teaching around the world (Neck and Greene, 2011: 55). Some authors even note that besides the increase in teaching, the teaching has even increased in quality and quantity (Kuratko, 2005: 577; Henry, Hill and Leitch 2005:99; Drucker, 1985:7). In the pursuit of improving the teaching, Eckhardt and Shane (2013:160-163) as well as Shane (2012:217), pioneered individual-opportunity (IO) nexus. The premise was that students will learn better if they focus on this relationship between opportunity and the entrepreneur. This idea of exploring the nexus is supported by Garud and Giuliani (2012:158) in their argument that an entrepreneurial pursuit is not linear or straight but rather varies depending on the situation and in most cases, it requires constant correction (evaluation, identification, scanning) of the entrepreneurship sub processes.

While it is near impossible to estimate the number and nature of the required sub processes, the situation is made significantly difficult by the fact that available opportunities are subject to subjective interpretation by the entrepreneur looking at them (Garud and Giuliani, 2012:158). Additionally, the education and educational system which produced the entrepreneur can also prove to be a limiting factor (Garud and Giuliani, 2012:158). Consequently, because of the limitation variables mentioned above, it is difficult to have generic entrepreneurship training but rather an individualistic methodological training (Garud and Giuliani, 2012:158). Consequently, no tangible benefits are to be expected from the standardised and generic teaching of entrepreneurship within the higher education system.

When consideration is placed on the education of entrepreneurship at the individual level, there are some issues that might need to be involved. These includes the “coach-ability”, rate of skill adoption, the innate skill and the current skill level of the candidate. Additionally, the observation is that while students might benefit from training that can be adapted to their current skills and aptitude, this training does not necessarily need to be done by specialists. While some specialist resources might be required, these does not necessarily need to be accompanied by specialists in the subject area. This is actually a good thing because generally there is a demand of
such skills and the entrepreneurship field is fast and dynamic, so specialist skills that might be absolutely necessary and indispensable now might be obsolete in the near future. Additionally, despite saving institution resources, the dispensability of speciality teachers also means students can have access to wider resources.

Porter and Kramer (2011:62-67) also observed that it is necessary to examine the methodologically and pedagogically congruent method to teaching entrepreneurship especially with the context of capital markets. The authors observed that while long established goals like shareholder value and profit maximization are still admirable and worth pursuing, the current market also requires stakeholder value creation. This change in the industry, therefore, require a corresponding change in how entrepreneurship is taught. Porter and Kramer (2011: 62-67) observed that much of the latest trends in entrepreneurship are coming on through the social media as those are the areas that the market is congregating on. The social media, because of its pursuit of current information, also happens to be where all the big breaks happen. Also, on social media, the rate of change is significantly much higher than in the current industry, meaning the field of entrepreneurship is now more dynamic than ever. Porter and Kramer (2011: 62-67) even offer that the current pace of change in entrepreneurship is outpacing the rate of peer review publishing. This means that by the time something is published and considered by current students, the industry will be well past that stage.

The other challenge is that within higher education, teaching and training is also followed up by assessment. This is not only for the assessment of students and how competent they are but also is a requirement for accreditation purposes for many institutions of higher learning. However, to achieve this, the authors demand a revolutionary approach to entrepreneurship training. They observed that while most of the variables that are measured during assessment (feasibility, financial analysis, critical thinking and judgement) might stay the same, the method through which the teaching is administered might have to change.
3.2.9.3 Significance of Entrepreneurship Education in Secondary School Curriculum

Most countries have come to regard entrepreneurship as the solution to their poverty and unemployment problems. This is more so in the post-recession environment where job opportunities continue to shrink (Nani, 2016:85-90). Probably due to the recognition of the potential that entrepreneurship might play in the reduction of poverty and unemployment, the OECD in the early 2000 recommended that member states ought to include entrepreneurship curriculum across all subjects and levels of education (Carcamo-Solís et al., 2017:291). Askun and Yildirim (2011), cited in Carcamo-Solís et al. (2017:304) that there are also attendant benefits that come with entrepreneurship training. Some of these benefits includes problem-solving skills and improved reasoning capacity. The premise then is that introducing entrepreneurship lessons early in life might help in the development of cognitive skills that might be transferrable to other areas.

Udu and Amadi (2013:69) made the observation that entrepreneurship education tends to equip students with important manoeuvring know-how that will prepare them to deal with life challenges later in their lives, for example, if entrepreneurship skills are introduced at a younger age, this convinces the young eventual workers that besides working for someone else, they are also capable of starting their own initiatives. The mainstream belief of the authors is that wherever possible, entrepreneurship training needs to be introduced at the earliest stage of learning, preferably at primary school so that a foundation is built upon which further education can be developed.

Some literature also identified the ideal conditions under which entrepreneurship can prosper. This includes a modern and dynamic economy capable of creating jobs and with enough opportunities that young people can exploit on their way to become entrepreneurs (Eurydice Network, 2016:7-10). The authors also go on to make the distinction that the viable and dynamic economy does not only produce entrepreneurs who go on to start their businesses. Rather, even those already employed in various
organisations can still contribute to the entrepreneurial efforts by coming up with innovative ideas for their organisations which can lead to entrepreneurial pursuits without having them having to becomes independent entrepreneurs. Considering the impact that entrepreneurial education has on young people, the authors reiterate that it is imperative that it is introduced at the youngest age possible.

3.2.9.4 Benefits of Entrepreneurship Education in Secondary Schools

A study by the European Commission has revealed the link between students who undertake some entrepreneurial education and those who went on to start their businesses. For example, the study results indicated that between 15% and 20% of students who undertook entrepreneurial education at secondary school went on to start their businesses (European Commission, February 2013 as cited in Abu Hamid, 2013:1). The evidence coming from this European Commission study indicates that education is a key pathway through which entrepreneurship can be nurtured. Consequently, governments globally are making significant efforts to introduce entrepreneurship studies within their education system (Fakharzadeh, 2012: 15-49). Entrepreneurship Education (EE) is expected to improve employment opportunities which in turn is expected to improve socio-economic livelihoods especially in developing countries (Carcamo-Solís et al., 2017:304).

When students are equipped with entrepreneurial knowledge, they are better disposed to the processes that goes into the creation of a business as well as the resources that are required to pursue that goal. This is important, because as observed by Akpan, Effiong and Ele (2012: 101-110), the development and subsequent growth of a nation’s economy are not possible without the efforts of entrepreneurs. As already indicated by other authors, Akpan, Effiong and Ele (2012: 101-110) further confirm the importance of ensuring that students have access to an entrepreneurial foundation at an age as early as possible so that throughout their secondary and tertiary education they have a foundation to build on (Nani, 2016:85-90). Some observers also noted that entrepreneurship education does not necessarily have to be viewed as equipping them for students later because there are already some advantages that comes with
undertaking entrepreneurial studies. Leffler (2009: 104-116) observes that one of the ways in which entrepreneurial studies can be engendered is through projects and activities that have an entrepreneurial inclination.

The National Curriculum Development Centre of Uganda (undated) concurs that the development of entrepreneurship in schools serves to reduce unemployment, as people do not necessarily have to wait for a job but rather, they can start their own initiative. With the right entrepreneurial skills, job seekers can be transformed into job providers. The centre further notes that some of the skills that might need to be passed on to students especially at secondary level includes ability to turn available opportunities into successful businesses, risk taking, innovation and creativity. Xaba and Malindi (2010: 76-90) further observed that teaching entrepreneurship in schools might even help change the education into a more focused and meaningful curriculum. Additionally, there is also the observation that while entrepreneurship might help in resolving the problems of unemployment and poverty, passing on entrepreneurship skills helps to benefit students for all socioeconomic backgrounds because it teaches the children new thinking skills such as being creative and unlocking their capacity to perceive opportunities. Rodov and Truong (2015:1) further believe that entrepreneurial education at a young age stimulates the economy, instils confidence, ensures social justice and helps the students to identify opportunities.

3.2.9.5 Strategies for Entrepreneurship Education

Eurydice Network (2016:10) have made a list of the different entrepreneurship education initiatives that have been launched in different countries. Some these includes the following as shown in table 5.
<table>
<thead>
<tr>
<th>Country Name</th>
<th>Initiative</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>• Action Plan for Entrepreneurship Education, launched in year 2011</td>
<td>• The initiative is aimed at creating awareness of self-employment as the best alternative to employment. • The initiative further seeks to capacitating teachers with skills to cultivate enthusiasm towards entrepreneurship among students.</td>
</tr>
<tr>
<td>Denmark</td>
<td>• 2009 Strategy for Education and Training in Entrepreneurship</td>
<td>• Aimed at fostering vigorous investment in entrepreneurship know-how entrepreneurship advocacy institutions • The initiative is an impetus for future laws to actively earmark funding for entrepreneurship education and training initiatives at all levels of education.</td>
</tr>
<tr>
<td>Estonia</td>
<td>• Mutual agreement for promoting entrepreneurship education (2010)</td>
<td>• Aimed at establishing a policy document for strategic programmes for promotion of entrepreneurial education.</td>
</tr>
<tr>
<td>Lithuania</td>
<td>• Economic Literacy and Entrepreneurship Education of 2008.</td>
<td>• The three initiatives intend to enforce the attention on entrepreneurship and financial management across the school system.</td>
</tr>
<tr>
<td>Country</td>
<td>Initiatives</td>
<td>Objectives</td>
</tr>
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</tbody>
</table>
| Netherlands | • National Program of Youth Entrepreneurship Education and Encouragement of 2008.  
• National Education Strategy of 2003  
• Programme Partnership Leren Ondernemen of 2005  
• Education and Entrepreneurship Action Programme of 2007  
• Education Networks Enterprise of 2009 | • The initiatives are aimed at enhancing entrepreneurial intention among students, and,  
• Increase youth entrepreneurial ventures within a five-year circle post completion of formal education. |
| Sweden      | • Strategy for entrepreneurship in the field of education of 2009              | • The initiative is aimed at integrating entrepreneurship education at all levels of education                                           |
| Wales       | • Youth Entrepreneurship Strategy of 2004                                     | • Aims to establish a structure and deliberate focus for entrepreneurship education on an ongoing basis.                                 |
| Norway      | • See the Opportunities and Make them Work of 2004.                          | • Aims to strength the quality and broaden the ambit of entrepreneurship know-how throughout the education system of the country.     |

Source: Researcher
3.2.9.6 Models for Entrepreneurship Education

Different countries have also come up with different forms of entrepreneurial models for their education. Hytti (2008:1) presents some of them in table 6.

Table 6: Forms of entrepreneurial models for education

<table>
<thead>
<tr>
<th>Country Name</th>
<th>Model Discussion</th>
</tr>
</thead>
</table>
| Austria      | • The country’s model for education entails reconfiguration of departments of entrepreneurship in higher education through the act of appointing new leadership and increasing study programmes in teacher education.  
• The country predominantly leans towards refining extant business approach whilst the comprehension of venture education is reflected through the promotion of nascent entrepreneurial behaviour. |
| Finland      | • The country understands entrepreneurship as a tool to develop entrepreneurial qualities of individuals in addition to providing them with entrepreneurship skills.  
• The model of Entrepreneurship education cuts across schooling levels.  
• The model focuses on strengthening intrapreneurial disposition, which is a sum total of adaptation, proactivity, risk taking, self-propelling, business know-how, success orientation, required knowledge to actualise entrepreneurial behaviour, and career choice post schooling level  
• The model is premised on the idea that synergised educational approach develops elementary awareness of students in relation to the importance of and possibilities accruing from actualisation of entrepreneurial activity. |
| Ireland      | • The country’s schooling system provides literally minimal entrepreneurship education. Notwithstanding the forgoing, pipeline initiatives are on their final stages of public enrolment. |
| Mexico | • Chief among these initiatives is Enterprise Award Schemes (EAS).
• The country is employing vigorous efforts to promote youth entrepreneurship.
• Prior to 2007, subjects related to entrepreneurship were only offered post primary schooling level, while tertiary educational level offered technologically and commercially oriented curricula.
• In 2007, an entailment study was conducted by the National Association of Universities and Higher Education Institutions (NAUHEI) which resulted in the creation of Enterprise Higher Education Foundation, tasked with the responsibilities of consolidating and homogenising entrepreneurship enhancing efforts and enablers across tertiary education establishments.
• The creation of NAUHEI spawned the “Programme for the Promotion of an Enterprising Attitude at the national level”, focusing on enhancing entrepreneurial intention at elementary schooling phase in 27 Mexican states. |
| Malaysia | • In year 2011, the country adopted a policy direction which entailed the reformation of the then prevailing curriculum of entrepreneurship education, at elementary level. The reforms included:
  a) Students are encouraged shaped to adopt an entrepreneurial mental disposition through the introduction of in-class entrepreneurship activities. The expectant results are to have more and more students possessing an entrepreneurial mental disposition which will be evident on their daily lives.
  b) Students are taught creative and critical thinking skills and to be innovative. The benefit of such thinking enables students to identify opportunities which will bring about success in their lives. |
c) Students are empowered with buying and selling know-how. This skill is construed to be integral in building a successful business venture.
d) Students are taught technological and vocational skills which will assist them to innovate superior and competitive products.
e) Lastly, ethics and morality are inculcated to students as pivotal values to be upheld in their entrepreneurial journey.

Source: Researcher

3.2.10 Approaches in Entrepreneurship Education

One of the challenges that have been observed in the field of entrepreneurship is that a single, unanimous approach is yet to be agreed upon. As a result, the existing definitions, approaches, and techniques are determined by existing context and in some cases are area specific (Fayolle, 2007:59). Consequently, several modalities, pedagogical methods and approaches are in use to teach entrepreneurship (Fayolle, 2007:59). One of the observations that have been made is that the absence of a single dominant pedagogical model for entrepreneurship education has led to a multitude of approaches with lots of experimentation as there is no universally agreed upon approach to teach. Others observe that the multitudes of approaches might not necessarily be a bad thing considering that entrepreneurship cuts across several disciplines and might require a multidisciplinary approach rather an approach based on a single pedagogy. The authors make the following further observation:

“Entrepreneurship training requires a non-traditional approach to business education that stresses generalised cross-disciplinary skills. In addition, students must learn to enthusiastically embrace the challenges of operating in a business environment that favours creativity and risk-taking. Students must experience entrepreneurship to actually grasp the true nature of entrepreneurship”.
One of the institutions that have encouraged the use of experiential learning in entrepreneurship education is the European Commission. The Commission is convinced that while active learning that is adapted to local conditions and the aptitude of the learners might be complex and demanding, still this needs to be pursued (European Commission, 2006:46). The other perception produced using the review is that business-venture teachers should draw in students' sentiments and feelings in the learning system and should have the option to establish an open climate of trust which can improve students' trust in facing challenges. Despite the absence of agreement on the strategy to show business, the two learning ways to deal with business schooling are apparent in business venture writing, to be specific the customary methodology and the constructivist approach (European Commission, 2006:46).

3.2.10.1 The Traditional Approach to Entrepreneurship Education

Krueger (2007:125) observes that the traditional entrepreneurship approach is focused on knowledge acquisition and is primarily behavioural. Because it is behavioural (educator-focused), the assumption is that there should be an educator with a reservoir of knowledge who should pass on some information to passive students. In this approach, the students can only know to the same level as the educator passing on the information without any further capacity for them to development or acquire independent knowledge. The same observation is supported by Frazier (2005:9) who argues that in the traditional approach, information is owned by the educator.

Despite its apparent limitations, the traditional approach has remained popular in entrepreneurship training. This is because there are many case studies, lectures and business plans upon which the curricula is based (Petrakis and Bourletidis (2005) in Strydom (2008:4). The European Commission (2008:29) is of the opinion that despite the apparent popularity, there is still a need to shift the entrepreneurship learning to approaches that are more modern and interactive. One of the preferred outcomes under this interactive learning process is that the educator stops being the custodian of knowledge but rather becomes the moderator. The other observation that the
European Commission (2008) has made is that the skills that are acquired through the traditional methods of entrepreneurship teaching do not readily transfer to the actual business environment where they are needed. This, therefore, calls for a practical hands-on approach instead of learning that is primarily theoretical (Honig, 2004:264).

3.2.10.1 The Constructivist Learning Approach to Entrepreneurship Education

The constructivist theory can be traced to Dewey (1938, in Roberts, 2006:19) and Cooperstein and Kocevar-Weidinger (2004:141). Piaget (1963:1) went on to formalise the theory bringing it into the mainstream. The central tenet in the theory by Piaget (1963:1) was that through a process of assimilation and accommodation people construct new knowledge from their experiences. The tenets of the constructivist theory went on to spawn the constructivist learning approach to entrepreneurship education. This approach presupposes that the constructivist theory is the source of entrepreneurship education. This is further based on the premise that humans’ knowledge construction continuously evolves (Krueger, 2007:125). Krueger (2009:2) suggests entrepreneurship education should be based on the constructivist theory since the theory brings some noted positive impact on entrepreneurship students. This is because the constructivist approach emphasises the idea of learning taking charge of their learning making it more learner centred. Good and Brophy (1994:1300) make the following observations:

- Learners “construct their own meaning. Students must make a deliberate effort to make sense of the information that comes to them by manipulating, discovering, and creating knowledge to fit their belief systems”.
- New “learning builds on prior knowledge. Students must make connections between old knowledge and new information”.
- Learning “is enhanced through social interaction. Students must have an opportunity to compare and share their ideas with others”.
- Meaningful “learning develops through authentic tasks. Activities that simulate those that will be encountered in real life or in an assignment must be chosen”.

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Krueger (2007:126) observes that entrepreneurship educators have concluded that learners need to determine their own learning. Consequently, they now perceive their primary duty as facilitating training instead of passively passing on information to students. Resnick (1989 in Frazier, 2005:8) observes that “under the constructivist learning approach, learners create their own entrepreneurship understanding, which is moulded by their personal experiences, knowledge they already have influence from those that they come into contact with”. Consequently, instead of educators conducting their teaching duties in the traditional sense, they seek to motivate the learners to be creative and finding their own knowledge which might be relevant to their entrepreneurial pursuits. To determine the efficacy and effectiveness of the constructivist approach, Izquierdo and Buyens (2008:11) conducted an empirical study with 470 students in Belgium. The students were divided into a control group and an experimental group. The research findings showed that those students who were tutored using a constructivist approach displayed high entrepreneurial competencies than those who followed the formal traditional approach (Izquierdo and Buyens, 2008:23). The constructivist learning approach has created its own educational practices, some of which are outlined below:

(1) Problem-based learning approach

According to Tan and Ng (2006:134), “problem-based learning is one of the approaches in educational practice that emerged from constructivist theories. Entrepreneurship educators using this approach allow students to develop solutions to problems rather than learning solely from lectures”. This is “helpful in developing students’ tolerance for ambiguity and entrepreneurial self-efficacy”. Tan and Ng (2006:416) used a case study method to “assess the effectiveness of the problem-based approach as a pedagogical approach to entrepreneurship education in Singapore. Even though there was no comparison with the other method, these authors found that students who were taught using the problem-based learning approach demonstrated an understanding of what it took to be an entrepreneur. Conclusions were drawn based on classroom observations, students’ journal reflections and feedback. The approach equipped students with the ability to assess opportunities more critically, understand various factors which might impact on
entrepreneurial success and to show more caution when proposing solutions” (Tan and Ng, 2006:424-425).

(2) The entrepreneurial-directed learning approach

Heinonen and Poikkijoki (2006:84) adopted an “entrepreneurial-directed approach to entrepreneurship education at Turku School of Economics and Business Administration in Finland. Firstly, they state that their entrepreneurship education is aimed at integrating the skills and attributes of an entrepreneurial individual with the entrepreneurial process and related behaviour. As entrepreneurship is based on the entrepreneurial process and the prerequisite individual entrepreneurial behaviours, skills, and attributes”, Heinonen and Poikkijoki (2006:88) assert that “integrating the entrepreneurial-directed approach into traditional methods of learning can facilitate the kind of learning that supports the entrepreneurial process”.

Heinonen and Poikkijoki (2006:83) argue “the need to shift from teaching to learning in an environment as close as possible to real life”. Similarly, Edelman et al. (2005:6) propose that “entrepreneurs must be educated on how to discover opportunities through perceiving the environment in novel ways and that more effort should be dedicated to developing entrepreneurial innovation and creativity than to more popular approaches that emphasise the examination of entrepreneurial best practices. Therefore, entrepreneurship education faces a special challenge of facilitating learning that supports the entrepreneurial process” (Heinonen and Poikkijoki, 2006:84). Heinonen and Poikkijoki (2006:84) contend that “traditional teaching methods, lectures, literature reviews and examinations do not stimulate and nurture entrepreneurship”. These traditional methods according to Kirby (2002 in Heinonen and Poikkijoki, 2006:84), may “inhibit the acquisition of entrepreneurial attitudes and skills”. Heinonen and Pokkijoki (2006:84-85) emphasise “the importance of the active role of students in the learning process. They explain their entrepreneurial directed approach as an approach that involves co-learning between teachers and students: the students take ownership of their own learning and teachers act as supporters and facilitators of the process” (Heinonen and Poikkijoki, 2006:85). The entrepreneurial-directed approach “emphasises experiential learning in which new activity produces a
new experience and new thinking through reflection” (Heinonen and Poikkijoki, 2006:87). This approach, however, requires “teachers to act in an entrepreneurial way in discovering and innovatively exploiting opportunities. The entrepreneurial-directed approach integrates knowledge, experience, and action in entrepreneurship education”.

(3) Experiential approach to entrepreneurship education

Kolb (1984 in Shen and Chai, 2006:5) posits that the concept of experiential learning finds its existence on the philosophical belief that knowledge transmutation creates experience. In the experiential learning approach “learners are immersed in an environment in which they actively participate in acquiring knowledge, thereby allowing students to confront highly complex and dynamic situations” (Cannon and Feinstein, 2005 in Strydom, 2008:5). Experiential learning “has become increasingly used in the classroom with educators moving away from traditional teaching methods, text, and lectures in order to create real experiences in entrepreneurship” (Sherman, Sebora and Digman, 2008:31).

The European Commission (2008:30) states that the “use of experience-based teaching methods contributes to the development of entrepreneurial skills and abilities. In experiential learning, learners are required to do something and discover what it means” (Leffel, 2008:405). Leffel (2008:406) argues that “the ultimate experiential learning for entrepreneurship students is to be involved with the start-up." The “application of experiential learning philosophy in entrepreneurship education assumes that what students have already learned has prepared them to start and manage a business”. Lüthje and Franke (2002:10) observe that “in designing entrepreneurship education programs, provision must be made for students to be involved in hands-on projects of opportunity identification and new venture creation”. Vincett and Farlow (2008:286) found that “allowing students with real business ideas to become entrepreneurs in the learning process creates an opportunity for students to experience the entrepreneurial life directly".
Table 7: Contrast Traditional Learning and Experiential Training

<table>
<thead>
<tr>
<th></th>
<th><strong>Traditional Training</strong></th>
<th><strong>Experiential Training</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>For Learner</td>
<td>▪ Learning set-up is characterised by acquiescence, observatory, and minimal involvement.</td>
<td>▪ Learning set-up is such that students are encouraged to be active and participatory throughout the training.</td>
</tr>
<tr>
<td>For Trainer</td>
<td>▪ The trainer is a focal figure and enjoys absolute control.</td>
<td>▪ The learner is a focal point and enjoys control.</td>
</tr>
<tr>
<td></td>
<td>▪ The trainer is a repository of knowledge and enjoys absolute liberty to be a judge and take autonomous decision.</td>
<td>▪ The trainer provides guidance to the learning process. Learning if free of autonomous and excessive trainer judgement.</td>
</tr>
<tr>
<td></td>
<td>▪ Responsibilities of learning rest squarely on the shoulders of the trainer.</td>
<td></td>
</tr>
<tr>
<td>Learning</td>
<td>▪ Learning outcomes are predefined, and there is skewness of communication</td>
<td>▪ Customised learning and two-way dialogue and Interactive learning</td>
</tr>
<tr>
<td></td>
<td>▪ The philosophical knowledge amassment, underpins learning</td>
<td>▪ The philosophical upskilling mental disposition underpins learning.</td>
</tr>
</tbody>
</table>

Source: Corman et al. (2005:50-51) cited at Malebana (2012:131)

Sherman et al. (2008:29) observed the many approaches to pedagogical entrepreneurship on the careers of 98 selected students from the Midwest University in Iowa. Their studies sought to determine the significance of pedagogical approaches on the motivation and inclination to become and entrepreneur. The premise of the study was that the employed pedagogical approach has an influence on whether students decide to become entrepreneurs or not (Sherman et al., 2008:34). Sherman et al. (2008:34-35) note that to get maximum exposure, a total of eighteen pedagogical activities were made available that students could take part in. These were grouped into doing and experiential activities or approaches, listening/watching, and reading. The range of activities are listed in Table 8.
<table>
<thead>
<tr>
<th>Instructive activities</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ “Lessons from the firing line” finding out regarding business venture.</td>
<td>▪ Perusing</td>
</tr>
<tr>
<td>▪ Theoretical lecture of entrepreneurial behaviour.</td>
<td>▪ Perusing</td>
</tr>
<tr>
<td>▪ Perusing business concepts documents of fellow peers.</td>
<td>▪ Perusing</td>
</tr>
<tr>
<td>▪ Analysing contents from multiple business websites.</td>
<td>▪ Perusing</td>
</tr>
<tr>
<td>▪ Finding out with regards to entrepreneurship practitioners in the current news.</td>
<td>▪ Perusing</td>
</tr>
<tr>
<td>▪ Finding out with regards to business ancient visionaries.</td>
<td>▪ Perusing</td>
</tr>
<tr>
<td>▪ Upskilling on Business Administration of nascent ventures.</td>
<td></td>
</tr>
<tr>
<td>▪ Hearing introductions by rehearsing entrepreneurship practitioners.</td>
<td>▪ Observation</td>
</tr>
<tr>
<td>▪ Hearing about experiences of teachers who are already performing entrepreneurial behaviour.</td>
<td>▪ Observation</td>
</tr>
<tr>
<td>▪ Watching visuals about business visionaries.</td>
<td>▪ Observation</td>
</tr>
<tr>
<td>▪ Interviewing business visionary</td>
<td>▪ Actual Action</td>
</tr>
<tr>
<td>▪ Conversing with different students about their entrepreneurial intentions</td>
<td>▪ Actual Action</td>
</tr>
<tr>
<td>▪ Partaking in an endeavour discussion with business visionaries, financial speculators, and specialist organisations</td>
<td>▪ Actual Action</td>
</tr>
<tr>
<td>▪ Writing a business plan</td>
<td>▪ Actual Action</td>
</tr>
<tr>
<td>▪ Trade business cards with business visionaries, financial speculators, private financial backers, and specialist organisation</td>
<td>▪ Actual Action</td>
</tr>
<tr>
<td>▪ Experience of social capital (family members)</td>
<td>▪ Empirical</td>
</tr>
<tr>
<td>▪ Experience in venture creation</td>
<td>▪ Empirical</td>
</tr>
<tr>
<td>▪ Write up of business plan with multiple workers</td>
<td>▪ Empirical</td>
</tr>
</tbody>
</table>

Source: Sherman et al. (2008:37) cited at Malebana (2012:132)
Sherman et al. (2008:35) noted that there were several interactions which proved to give better insights to students about entrepreneurship. These included self-employment plans, business plan preparation, interviews as well as exposure to guest speakers and interactions with established entrepreneurs. The authors further observed that:

1) Significant variations were noted between reading approaches and experiential approaches. Experiential approaches were perceived to be having more positive impact on the students than the reading approach.

2) It as also perceived that students’ propensity to become entrepreneurs was significantly improved through interacting with the instructor’s version of entrepreneurship and watching approaches using guest speakers.

3) Empirical “approaches and listening/watching approaches had a greater impact on students’ interest in becoming an entrepreneur than reading approaches”, and

4) Those approaches “that had a greater influence on students made them more likely to become entrepreneurs. They then asserted that educators must continuously improve their methods and teaching styles by assessing the effectiveness of their pedagogical approaches. To achieve the goal of educating and promoting future entrepreneurs, educators’ course work should be augmented with more experiential approaches” (Sherman et al., 2008:39-40).

Kolb (1984 in Shen and Chai, 2006:5) states that “a person learns in a cyclical manner by constantly reconciling the two opposing modes of reflective observation versus active experimentation and concrete experiences versus abstract conceptualisation.” Knowledge transfer and up-skilling choices are at the disposal of entrepreneurs (Table 9).
Table 9: Grid of Instructive methods and skilling techniques

<table>
<thead>
<tr>
<th>Concrete experience</th>
<th>Quadrant II Reflective – applied changes in application:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadrant III Active – applied</td>
<td>Motivates</td>
</tr>
<tr>
<td></td>
<td>Applied lectures</td>
</tr>
<tr>
<td></td>
<td>Limited discussion</td>
</tr>
<tr>
<td></td>
<td>Cases</td>
</tr>
<tr>
<td></td>
<td>Role plays</td>
</tr>
<tr>
<td></td>
<td>Problem-oriented exams</td>
</tr>
<tr>
<td></td>
<td>Programmed instruction with emphasis on skills</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Active experimentation</th>
<th>Reflective observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadrant IV Active-theoretical Changes in understanding:</td>
<td>Quadrant I Reflective-theoretical Changes in knowledge:</td>
</tr>
<tr>
<td>Focused learning groups</td>
<td>Theory lectures</td>
</tr>
<tr>
<td>Argumentative discussion</td>
<td>Required readings</td>
</tr>
<tr>
<td>Experiments / research</td>
<td>Hand-outs</td>
</tr>
<tr>
<td>Suggested readings</td>
<td>Programmed Instruction with emphasis on concepts</td>
</tr>
<tr>
<td>Analysis papers</td>
<td>Theory papers</td>
</tr>
<tr>
<td>Workshops</td>
<td>Content-oriented exams</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Coaching</td>
</tr>
</tbody>
</table>

Abstract conceptualisation

Source: Garavan and O’Cinneide (1994 in Niyonkuru, 2005:28)

When it comes to the “reflective observation dimension / active experimentation, Garavan and O’Cinneide (1994) in Niyonkuru (2005:27) suggest an entrepreneur may prefer active experimentation rather than reflective observation”. Taking cognisance of that, the authors note that concrete examples are usually what creative entrepreneurial people prefer. They suggest that “an entrepreneurial learning style requires pedagogical methods presented in quadrant III and IV of the grid. They also indicate that a typical entrepreneurial situation will need all four learning styles”. According to Corman et al. (2005:53-54), the underlying rationale for the four strata of learning is:

- Concrete experience – “to encourage active student participation and involvement in the learning process”.
- Reflective experience – “to allow students the opportunity to express their feelings toward the learning experience”.

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• Abstract conceptualisation – “to assist students in understanding the concepts and theories presented in class”; and

• Active experimentation – “to improve students’ ability to apply what has been learned to new experiences and new topics”.

• The “active learning approach - Active learning or learning by doing are pedagogies associated with the constructivist approach” (Cooperstein and Kocevar-Weidinger, 2004:141), as “learners in this approach actively and autonomously construct their own knowledge” (Mueller, 2008:3). Mathews (2007:101) states that “the constructivist theory has resulted in creating active learning of real-life situations. Active learning approach engages learners in learning experiences that are active where they can reflect on and evaluate learning experiences, build on them to construct new knowledge and meanings” (Yager, 1991 in Frazier, 2005:9). Active learning methods allow “learners to learn through critical problem solving and active application of information. This approach incorporates the use of case studies, role plays, group exercises and business simulations” (McAdam and Leitch, 2005 in Strydom, 2008:4).

According to Hackbert (2006:7-14); “active learning contributes to entrepreneurship education because it engages students, crafts memorable experience and facilitates effective and durable learning”.

• The discussion in the “preceding section highlighted the shift in entrepreneurship education from the traditional learning approach to the constructivist learning approach. This shift is driven by the failure of the traditional approach in developing the necessary entrepreneurial skills and abilities in students. The constructivist approach is hailed as an essential approach that provides learners with real experiences about entrepreneurial behaviour. Specifically, it is learner-centred, requires learners to take responsibility for their own learning and instead of being passive receivers of information, learners are actively involved in constructing knowledge from their experiences. This requires a shift in the mindset of entrepreneurship educators as they must be facilitators of learning rather than instructors”. The next section discusses the prevailing pedagogical methods of entrepreneurship education.
3.2.10.2 Pedagogical Techniques in Entrepreneurship Education

Solomon et al. (2002:6) makes the argument that there are several challenges facing educators when they are designing their learning curriculum. They recite that “offering students opportunities to experience entrepreneurship and small business management is a theme among many entrepreneurship education programs” Solomon et al., (2002:7) further observed that education for entrepreneurship and education about entrepreneurship have varying methods. For example, some of the methods that are used by education about entrepreneurship includes consulting services by students and researchers. On the other hand, education for entrepreneurship makes use of the following: joining a students’ entrepreneurship club, working with entrepreneurs, role playing games, computer simulations, writing business plans, practical work, and videos.

According to the author, the most common methods used in entrepreneurship education includes on-site visits, computer/behavioural simulation, videos and field trips, role plays, entrepreneurs as guest speakers, consultation and interaction with entrepreneurs, group projects, lectures, case studies and writing of business plans. Other methods also include internships and E-learning methods.

Hegarty (2006:322) assessed the “perceptions of lecturers and learners about the effectiveness of entrepreneurship teaching methods in Northern Ireland using focus groups. From the focus groups she generated a list of teaching strategies for entrepreneurship education with their advantages and disadvantages as well as implications for teaching entrepreneurship” (Hegarty, 2006:328). Hegarty (2006:329) reports that “the potential for case studies, site visits and guest speakers to explain the entrepreneurial process depends on the suitability of the site/case choice. She adds that while guest speakers may enhance students' motivation, they can be too inspirational, and students can miss out on much of the entrepreneurship theory”. Additionally, Hegarty (2006:329) suggests that “interactive strategies such as teamwork and practical demonstrations may be suitable for educators who have less knowledge in entrepreneurship and for learners to express their creativity”.

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Several teaching methods exist in entrepreneurial education. The ultimate choice on the option to pursue depends on the number of advantages that the said teaching approach presents. Ideally, it should also have very few disadvantages. For example, traditional lecturing is perceived as providing skewed communication which disfavour students to present some response on the content that is being taught. On the other hand, methods such as teamwork projects and cases are perceived as providing maximum entrepreneurial stimulation for students.

Audet (2000:58) conducted a study which investigated students' self-efficacy and intention to embark on entrepreneurial behaviour, upskilling or knowledge amassing appetite, innovation, market gap existence for the idea to flourish, and ability to compressively document the idea. Field work of the study entailed vigorous analysis of respondent entrepreneur and his/ her entrepreneurial activity. The study made three findings. Firstly, the study found that subjective attractiveness of venture creation was exponentially greater in category of field study respondents than in concept documentation respondents. Secondly, concept documentation respondents had greater self-efficacy for venture creation than field study respondents. Lastly, concept documentation students bestowed upon the exercise higher rating in relation to know-how and abilities secured, while field study respondents rated the exercise in terms of knowledge.

3.2.10.3 Summary of Teaching Entrepreneurship

Looking at how entrepreneurship needs to be taught, there are several conclusions that researchers have come to. First, there is a near consensus that when it comes to entrepreneurship there are some concepts that can be taught while some can only be experienced through hands on training. The other consensus is that there are several challenges that exists in the teaching of entrepreneurship. This is because entrepreneurship is a wide programme, with very different components and that always presents a problem as covering all those components can become problematic. Some of the recommendations that have been made by the entrepreneurship educators includes multidisciplinary approaches, cross-curricula
teaching methods, new approaches and involving as many stakeholders as possible in the teaching process.

Some of the key issues on entrepreneurship education that have been cited as important in literature includes educators and assessment, content, pedagogies, audiences, and overall goal of the programme. One of the recommendations that are given is that entrepreneurship education needs to take cognisance of the capacity and aptitude of the students and from the onset the whole learning experience needs to have clearly articulated goals. Only once the goals are reached should the learners be examined. Entrepreneurship educators, therefore, need to balance the practical and theoretical aspects of entrepreneurship during the teaching phase.

In the absence of a universally agreed upon methodology “to teach entrepreneurship, two main approaches have been identified in literature as apt”. The first is the traditional approach which is trainer-centric, where the main method of learning is the teacher conducting lectures to passive students who are expected to memorise the lectures if they are to be successful in their studies. The second approach is the constructivist learning approach. This is student centred and includes the students in the learning process and encourages them to take charge of their learning experience.

Overall, there is an acknowledgement that there is an observed trend that leans towards experiential as opposed traditional methods of training and active approaches that are interactive and based on the aptitude and previous knowledge of the students. Secondly, there is also an acknowledgement that the various teaching methods also tend to produce different results. However, the overriding recommendation is that students need to be actively engaged in the learning process especially in incidences where they are expected to become entrepreneurs. In the next chapter the role of entrepreneurship education towards entrepreneurial activity is examined.
3.3 PERSONALITY TRAITS THAT INFLUENCE ENTREPRENEURIAL INTENTION

3.3.1 Introduction

The extant literature has found that there are two schools of thought which explains choices and decision making of an individual (Ahmed, Khattak and Anwar, 2020:15). In Arora and Kumari (2015: 1-7) and Imbaya and Tarus (2012:1-9), the school of thought espousing demographic features to the discourse of choices and decision-making process is posited. The second school of thought advances the psychological factors as best suited to explaining choices and decision making of an individual (Ahmed et al., 2020:15). Personality traits are understood to be a stable individual difference in entrepreneurship career choice, entrepreneurial cognitions and opportunity acknowledgment recognition, entrepreneurial motivation, and venture survival (Zhao, Seibert and Hills, 2005:1267, Ahmed et al., 2020:15).

Furthermore, personality traits in the study of entrepreneurial intentions generation process have acquired dominance in the recent literature (Ahmed et al., 2020:15). The five-factor model of dimensional representation of personality structure posited by Costa and McCrae (1992:343) is a widely operationalized model of personality extant currently. The meta-analytical study of Zhoe (2010:132) affirms the wide-operationalization of the five-factor model (FFM). According to McAdams (1992:331), the five factors of FFM include Culture (Openness to experience), Conscientiousness (Will), Extraversion (Surgency), Agreeableness (Warmth), and Neuroticism (Emotional Stability). Table 10 represents definers of the five factors.
Table 10: Definers of the Five Factors.

<table>
<thead>
<tr>
<th>Personality Type</th>
<th>Adjective Definers</th>
<th>NEO Personality Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extroversion, Surgency, Social Activity vs Introversion</td>
<td>Reserved – Affectionate Loner – Joiner Quiet - Talkative Passive – Active Sober – Fun loving Malevolent - benevolent</td>
<td>Warmth Gregariousness Assertiveness Activity Excitement seeking Positive emotions</td>
</tr>
<tr>
<td>Agreeableness, Friendly Compliance, Socialization vs Antagonism</td>
<td>Ruthless – Soft hearted Suspicious – Trusting Thrifty – Generous Antagonistic – Acquiescent Critical – Lenient Irritable – Good natured</td>
<td>Trust Straightforwardness Altruism Compliance Modesty Tender mindedness</td>
</tr>
<tr>
<td>Openness to Experience, Intellect, Culture vs Closedness</td>
<td>Down to earth- Imaginative Uncreative – Creative Conventional – Original Prefer Routine – Prefer Variety Uncurious - Curious Conservative - Liberal</td>
<td>Feelings Aesthetics Feeling Actions Ideas Values</td>
</tr>
<tr>
<td>Conscientiousness, Will to Achieve, Constraint vs Undirectedness</td>
<td>Negligent – Conscientious Lazy – Hardworking Disorganised – Well-Organized Late – Punctual Aimless – Ambitious Quitting – Persevering</td>
<td>Competence Orde Dutifulness Achievement striving Self-discipline Deliberation</td>
</tr>
</tbody>
</table>

Source: Costa and McCrae (1992:343)

The verb “entrepreneurship” is defined as entrepreneurship as an innovative activity that endows upon extant resources in an ability to create wealth (Rusu et al, 2012: 5373). The noun “entrepreneur” defines an individual who selects scarce resources
then applies innovative ways to organise such resources to add value (Ahmed et al., 2020:15). Whereas entrepreneurial intentions denote a psychological disposition that sways attention towards a contemplated goal or the conduit through which to attain the contemplated objective (Aloulou, 2015:183). The meta-analysis of literature reveals sizable evidence of the existence of direct relationship between entrepreneurial intentions (Ahmed et al., 2020:15). The following paragraphs will be engaging in the discussion of the five personality traits model.

3.3.2 Contrasting Neuroticism and Entrepreneurial Intention

The trait of ‘neuroticism’ defines subjective propensity which favours nervousness and worriedness rather than feeling calm and safe (Grov, et al., 2009:842). High scores to neuroticism expose individuals to ample adverse emotions such as intense ill-temperedness, depression, temperamental, unsecured, and lower self-efficacy (Ahmed et al., 2020:15, Costa and McCrae, 1992:345). Whereas self-efficacy and affinity for innovation are integral characteristics of entrepreneurs (Ahmed et al., 2020:15). It comes as no surprise that individuals with low scores to neuroticism are described as calm, even tempered, self-satisfied, comfortable, unemotional and hardy (Costa and McCrae, 1992:345). Ahmed et al (2020:15) posits that entrepreneurs are optimistic and hardy. They are inclined to shoulder emotional burdens and soldier on where others give in, being unresponsive to negative feedback (Ahmed et al., 2020:15). In conclusion, individuals of low neuroticism are prone to start up new ventures, in contrast high neurotic individuals are unlikely to have favourable inclination to start up their own business (Ahmed et al., 2020:15).

3.3.3 Contrasting Conscientiousness and Entrepreneurial Intention

Personality dimension, “Conscientiousness”, is a spectrum of constructs that describe individual different impetus for achievement, self-control, hard work, and responsibility toward others (Roberts et al, 2014:1315). According to Judge, Higgins, Thoresen, and Barrick (1999: 1-33), persons who possess this trait are self-controlled. Baum and Locke (2004:10) posit that individuals of high consciousness are outstandingly
ambitious, achievement oriented and persistent. The need for high achievement is likely to prompt individuals to choose entrepreneurship because of its ability to offer more than employment (Ahmed et al., 2020:15).

Researchers have come to regard “Conscientiousness” as a personality trait that is made up of two factors. The first is motivation for achievement and the second is dependability. Achievement within the context of entrepreneurship has been extensively investigated (Antoncic et al., 2015:819). Some authors have also noted that conscientiousness positively affects cognitive structuring in concrete problem solving. Zhao et al. (2010) identified conscientiousness as one of the most consistent and resilient predictors of entrepreneurial intention. This is also consistent with findings by Şahin, Karadağ and Tuncer (2019:188).

3.3.4 Inclination to Exposure and Entrepreneurial Intention

Personality traits generally define an individual’s creativity, broadmindedness, and curiosity. People with an open personality tend to be curious and are interested in discovering new things and exploring new ideas (Ariani, 2013: 46). People with this kind of open trait because of their disposition are usually creative. This becomes an important trait for entrepreneurs as starting a business is often the combination of intelligence and creativity. Being open also contributes significantly to the process as one of the requirements for successful entrepreneurship is extraversion and emotional stability (Liang, Qu, Suganthan and Hernández-Díaz, 2013:281). One of the sub-traits of openness that is important is also openness to new experiences which has been positively linked to entrepreneurial intentions. Consequently, an argument can be made that those individuals who are outgoing and have an unconventional lifestyle are more likely to become entrepreneurs.

3.3.5 Extraversion and Entrepreneurial Intention

Extraversion is the character trait which determines if individuals get to be talkative or enthusiastic or assertive or dominant. Usually because of this extraversion trait,
individuals tend to have an optimistic disposition. Considering that optimism, assertiveness, and enthusiasm are necessary traits in entrepreneurship, this makes them indispensable for those individuals who want to start their own businesses (Zhao and Seibert, 2006:259). Because an entrepreneurial career always appears more appealing than a conventional one of someone who is traditionally employed and taking a salary regularly, this tends to attract extroverted individuals. It is important to note though that there is no agreement within literature on the extent to which extraversion motivates entrepreneurial intention. For example, the meta-analysis by Rauch and Frese (2007:353) noted that there is a positive correlation between the two constructs. On the other hand, a similar meta-analysis by Zhao and Seibert (2006:259) found the relation between entrepreneurial intention and extraversion to be insignificant. Sahin et al. (2019:188) on the other hand found some positive evidence to suggest the presence of a positive relationship between entrepreneurial intention and extraversion. Despite the seeming disagreement within literature, there is a reason to believe that at some level, those individuals who score highest in extraversion will always perform better as entrepreneurs.

3.3.6 Agreeableness and Entrepreneurial Intention

Agreeableness is another trait that is found in people. Some of the common characteristics of agreeableness includes forgiveness, selflessness, care, trust, dependence, tradition, and passivity (Costa and McCrae, 1992:343). Brice (2004:32) makes the observation that these traits lead individuals to have emotional dominance. This is disproved though by Antoncic et al. (2015:819) who observe that even though entrepreneurs might need to have some characteristics like being friendly, cooperative, or patient, the nature of their work also demands that they show assertiveness and demand and a whole lot of other traits that might make them appear as socially undesirable. This is confirmed by Zhao and Seibert (2006:259) who observed that in some cases, to achieve their business goals, entrepreneurs might need to be manipulative and self-centred. Because agreeable people need to fit in, they may have tendencies to suppress their ideas and take on the ideas of those around them so that they can fit in and appear ‘agreeable’, all which has the result of suppressing their entrepreneurial intention (Judge and Cable, 1997:359). Empirical
evidence from several studies is of the opinion that when it comes to entrepreneurial intention, being agreeable is not a desirable trait (Wooten, Timmerman and Folger, 1999:82).

3.3.7 Risk aversion and entrepreneurial intention

One of the more widely known variables is that when it comes to starting a new venture, the possible rewards are not always guaranteed as compared to the wages from a job. There is always a chance that the business will fail. Consequently, people who want the stability and security of a formal job are less likely to become entrepreneurs because of the risks that comes with running one’s own business (Cramer, 2002:1845). An argument can, therefore, be made that there is a direct negative link between entrepreneurial intention and risk aversion. This is something that has been confirmed by studies by Mayfield, Perdue and Wooten (2008:219). Bolton, Cohen and Bloom (2006:71) also came to the same conclusions that there was a negative link between being risk averse and being entrepreneurially inclined. On the other hand, a positive relation was established between risk tolerance and entrepreneurial intention (Bali, Demirtas, Levy and Wolf 2009:817).

Because undertaking an entrepreneurial project is a risky endeavour, there is a consensus in literature that for one to have some entrepreneurial intentions they also need to have some risk-taking behaviour. Some of the studies that have confirmed this relationship includes those by Iversen et. al. (2010:471). In a related study, Verheul, Stel and Thurik. (2006:151) sought to determine if such a relationship existed in a USA and European context. Their research findings confirmed the positive relation. Additionally, a meta-analysis by Zhao et al. (2010:197) which looked at entrepreneurial intention and risk propensity found a positive correlation between the two.
Conclusion

This chapter looked at several personality traits and their respective link and correlation with entrepreneurial intention. Several key conclusions were reached on how these traits influence entrepreneurial intention. For example, when it comes to neuroticism, the overall conclusion was that low neuroticism was linked to entrepreneurial intention while highly neurotic individuals were averse to starting businesses. Conscientiousness was also associated with a high propensity to start one's own business. This was the same with a personality that is open to experiences as this was found to eventually lead individuals down an entrepreneurial path. Extraversion is another character trait that was discussed, and the consensus was that that people with this trait were more likely to become entrepreneurs. Agreeableness was described in literature as being forgiving, caring, selfless, trusting, and dependable. All these were deemed to be positive traits but ones that might prove to be a burden when running a business. As a result, there was a consensus in literature that being agreeable was linked with a limited entrepreneurial intention. Similarly, a disposition towards risk aversion was found to have a negative correlation with entrepreneurial intention while risk tolerance was the more preferred trait. The next chapter looks at the drivers and enablers of entrepreneurial intention.
CHAPTER 4: KEY DRIVERS AND ENABLERS OF ENTREPRENEURIAL INTENTION

4.1 INTRODUCTION

Even though studies have noted that university students are usually very interested in embarking on entrepreneurial careers, the reality is that it is not all students who act upon this inclination (Shirokova, Osiyevskyy, and Bogatyreva 2016:1; Shinnar, Hsu, Powell, and Zhou, 2018:60). This suggests the need for some research on the specific motivators and drivers for one to become an entrepreneur. Also necessary are studies which identify some of the barriers to become an entrepreneur as well as the enablers. This can better explain the entrepreneurship inclinations of university students.

Both extrinsic and intrinsic motivators when it comes to entrepreneurial motivation have been studied extensively based on the assumption that their difference might help illuminate the concept of entrepreneurial motivation. This chapter represents the definitions of extrinsic and intrinsic motivations as they are presented in literature. While there is some marked difference between the two motivations, one of the consensus in literature is that they both serve to serve the basic human needs of relatedness, proficiency and independence. While there are these variables which determine the extent to which an individual becomes entrepreneurially inclined, there is also a general agreement that teachers and lecturers at all levels should play a part in motivating students during the entrepreneurial education. Mostly importantly, to ensure that adequate interest in entrepreneurship is maintained among students, and the teaching and learning of entrepreneurship require putting in place reformatory techniques for changing education to be more imaginative and attractive to the students. Additionally, considering that there are now technologies which facilitate learning even away from the classroom, within the context of teaching entrepreneurship education, the teacher needs to be a guide, a facilitator, and a motivator, both inside and outside the classroom.
Humbert and Drew (2010:173) note that when it comes to motivating variables these can be broken down into either pull or push factors. Some of the pull factors which ‘pull’ individuals to become entrepreneurs include the need to be autonomous, the pursuit of personal satisfaction and the desire to achieve a lifelong aspiration. On the other hand, there are push factors that induce an individual to take up entrepreneurship as a profession. These include dissatisfaction with the labour market, redundancy, and unemployment. Pull factors are also seen as internal motivators which induce an individual to take up entrepreneurship (Carsrud and Brännback, 2011:9). Also significant in entrepreneurial intention is the importance of prestige as there is certain amount of prestige that comes from running your own business and being identified as an entrepreneur. Engelen (2010:15) also notes that one of the most important drivers and motivators that is rarely mentioned is the exposure to the right environment. For example, individuals that grow up in an environment that respects entrepreneurs are most likely to become entrepreneurs themselves as this is something that is already lauded within their environment. Miller, (2015) on the other hand, noted the significance of self-confidence as one of the leading motivators for entrepreneurial intention. Gender is another variable that was found to have an impact on entrepreneurship. While the participation of women as entrepreneurs varied from country to country, the overall trend was that there were far fewer women entrepreneurs than men (Zhao, Seibert and Hills, 2005:1265). Based on this observation, a conclusion can be made that gender is also an important variable when it comes to the likelihood of one becoming an entrepreneur (Santos, Roomi and Liñán, 2016:40).

When it comes to factors that enable entrepreneurship, there is no consensus in literature as different writers give varying emphasis to different things. Some of the novel enablers that have been identified in literature includes relevant course content as well as co-mentoring from business partners (Smith and Beasley 2011:1). The presence of social capital was also perceived to be an important variable and enabler. Light and Dana (2013:13) specify this social capital as inclusive of business advice, access to funding as well as support from family members. Looking specifically at family members, their behaviour, values and financial contributions to the venture featured significantly as social capital.
Jansen et al. (2015:125) proposed a model based on university education as universities have a long history of teaching entrepreneurship studies. This model had a three-stage enablement model (educate, stimulate, and incubate). The result was a set of recommendations on how entrepreneurship can be encouraged and promoted using a wide array of support systems including funding, networking, relevant courses, role models and supportive staff. While there were some positive outcomes from the model, there were some factors which might militate against the model being rolled out on a wide scale. For example, not all universities have the resources to roll out the model suggested in the study. Secondly, there are still very different perceptions on what constitutes best practice when it comes to teaching entrepreneurship education.

4.2 PERFORMANCE IN CLASS

When it comes to class performance, there has always been a perception that students who are intrinsically motivated tended to perform much better than those who are not. This is because they tend to do much better in classroom activities, have a propensity to imbibe knowledge and their learning experience is much positive as they tend to dig into subjects in the hope of understanding them better. The positive outcomes of intrinsic motivations have also been confirmed in literature especially by the study of Deci, Koestner and Ryan (2001: 1-27). Their study concluded that “intrinsic motivation is negatively affected when real extrinsic motivation is attached to the behaviour of an individual. This undermining of intrinsic motivation is postulated to be the result of a perceived decrease in independence and proficiency by the individual receiving the extrinsic reward”.

4.3 DIFFICULTIES

There are observations that it is not easy to intrinsically motivate students so that they become entrepreneurially inclined. While this might be easy for students who already enjoy learning, this might be a problem for students who might need some encouragement from educators. One of the single biggest steps that educators can take is to induce some curiosity within the students so that in the pursuit of satisfying
that curiosity, the students get to learn in the process. Inducing curiosity can be achieved through relating entrepreneurship to things that the students already know and can relate to. Once the students get curious, there is a likelihood that they will continue pondering the issue and trying to find a solution even in their spare time.

4.4 MOTIVATION

Ryan and Deci (2000: 68-78) observe that the process of getting motivated starts when one gets inspired and energised towards a specific goal. This inspiration induces some behaviour allowing the individual to achieve those goals. When one gets inspired, there is an inner drive to accomplish the need. Gagne and Deci (2005:331-362) made a proposition for a model with both extrinsic and intrinsic motivation. Intrinsic motivation is when people are driven to do something because they find it worthwhile and interesting. Extrinsic motivation is when people undertake a task because they expect some reward at the end. According to the model from the authors, intrinsic motivation has immediate rewards as the process is as rewarding as the goal while extrinsic motivations allow the rewards to be enjoyed after the task.

Inside the motivation literature, a significant qualitative differentiation has been made among the inherent and outward motivation. Intrinsic motivation includes needing to participate in an undertaking since it is innately charming or fulfilling to the individual, whereas extrinsic motivation includes participating in a task to achieve a result that is discrete from the actual undertaking (DeCharms, 1968:7-11). Inward stimulation can be fortified through contemplating how a task is intrinsically fascinating or pleasant (Thoman, Smith, and Silvia, 2011: 592–599). Conversely, outward stimuli can be fortified by zeroing in on the results that will be accomplished by realising the task (Touré-Tillery and Fishbach, 2017: 860–876). Significantly, differentiation is further made between outward stimulation where an individual perceives constraints resulting from some outside power, and stimulation where an individual perceive autonomy when resolving to partake in the assignment, for example, taking an action which resonate with subjective importance or congruent with one’s self-concept.
Marciano (2010:1) and Ryan and Deci (2000:68-78) observed that the driving force behind many individuals in whatever their pursuits is, is motivation. As a result, while motivation might be the driving force for students to finish their studies, they might also be motivated by the need to find some balance in their lives. The authors further note that the students might be motivated by more than what the study program offers. For example, students studying entrepreneurship may be motivated by the need to know how a business plan is developed so that they can go ahead and develop one for themselves so that they can start a business. In some cases, they might simply be motivated by the need to demonstrate that they have the requisite aptitude and capacity to finish the studies. In most cases though, students are motivated by the prospect of employment, either in someone’s organisation or the business that they start on their own. What all this shows is that while studying entrepreneurship, there are multiple motivations driving different students.

The other factor that is highlighted by the above observation is that motivation is a very complicated concept. Besides being driven by extrinsic and intrinsic vectors, it is also highly dependent on expectations and characteristics of the individual. While extrinsic and intrinsic motivators might appear to be different and opposed, the two sometimes tend to work simultaneously to motivate an individual to do something that they ordinarily would not have done. Since the two are not mutually exclusive, there are even recommendations that the two can always be combined to elicit maximum inspiration from individuals. What might also be key is finding out what motivates different people. This is something that might help schools so that they can best motivate their students.

One case in point is Taylor’s Principles of Scientific Management (1911), which philosophically assumes that learners, much like workers, need supervision and are enticed by financial gain, and he advocated for a possibility of high earning despite the hardships learners or employees might endure during their studies or employment. Contrasted with controlled types of extrinsic motivation, autonomous types are thought to take after inherent motivation as far as how more intently they are experienced and how they affect execution (Deci and Ryan, 2000: 68-78; Ryan and Deci, 2017:1).
Even though it is sometimes inferred that intrinsic motivation is all around more helpful than extrinsic motivation (Cordova and Lepper, 1996:1; Deci and Ryan, 1995:31-49), a recent meta-analysis by Cerasoli and colleagues (2014: 980) proposes that the advantages of each kind of motivation are reliant upon the nature of the assignment or setting. Autonomous types of motivation (counting inherent motivation) are more firmly connected with execution on relatively open-ended assignments, for example, undertakings evaluated in terms of creativity) than extrinsic impetuses (which incite a more controlled type of motivation). In contrast, extrinsic incentives are more strongly associated with performance on close-ended tasks (e.g., tasks assessed in terms of speed and accuracy). However, what isn't yet known is whether students know about this sort of assignment- motivation fit and whether this mindfulness predicts significant results.

Other insights into students' motivations can be found from the study that was done by Elton Mayo et al. (1933). The study consisted of several experiments conducted between 1927 and 1932 at Western Electric Hawthorne Works in Chicago. While the results of the study have largely been controversial, one of the key findings from the experiments is that a positive social environment almost consistently resulted in people improving their performance. Secondly, psychological factors playing a role in motivation like group cohesiveness, social factors and autonomy were also found to be crucial.

The Maslow's Hierarchy of Needs (1954) model further highlights the different factors that drive human motivation. According to Maslow, these included physiological needs, safety, belongingness, esteem, and self-actualization. Physiological, “safety, and existence needs may be met by extrinsic sources such as wages, whereas belongingness, affiliation, relatedness, bonding, self-actualization, growth, and learning needs are primarily intrinsic feelings that may be met by creating opportunities for interpersonal and social interaction, autonomy, achievement, and growth”. But the question is how can students be motivated intrinsically? Maslow concluded that before intrinsic motivation, there is a set of basic human needs that need to be satisfied first.
Below is an outline of the five basic needs that Maslow argues need to be satisfied first (Figure 7)

Figure 7: Maslow five basic needs
Source: Researcher

4.4.1 **Physiological and Psychological needs.**

These are the needs that are required to satisfy human survival. These needs include food, water, air, shelter, clothing, and sex. The premise is that once the physiological needs are met, this also satisfies the psychological needs which leaves one to pursue further needs that are not directly linked to the survival of the individual. For most people though, physiological needs are the most dominant of their needs.

4.4.2 **Safety needs.**

Once physiological needs are met, one need to ensure that they are safe. This safety comes in many forms and shapes. Some of this safety includes better health, certainty, control over one’s life and environment, familiarity, routine, stability and order.
4.4.3 Social needs or love and belonging.

As individuals secure physiological needs and get the safety that they need, they start to crave love and belonging which according to Maslow is the third level of human needs. These are usually found in various relationships and social interactions.

4.4.4 Esteem or Ego needs.

Every human being gets animated by being in the environment that enhances self-respect or self-esteem and mutual respect. Impetus of self-esteem take the form of need for fortitude, attainment, self-sufficient, prospering in one’s chosen discipline, and freedom. Other self-esteem enablers include prestige, fame and social status, triumph, both financial and non-financial recognition, acknowledgement for one’s efforts, and dignity.

4.4.5 Need for self-actualization.

This level of motivation deals with the need for being able to operate at an optimum level. When students fulfil this need, there are able contemplate increase in the mental vibration to match with the highest frequency which will enable them to progress further to the highest potential. Notwithstanding this elevation, the possibility of developing discontentment may still surface, unless there is compatibility of activities being carried out and personality of the student. This necessitates absolute comprehension of oneself.

Self-actualization is “a growth need. This doesn’t just address what they are lacking in their lives, but it gives them a room to grow and develop as potential businesspeople. This need is always intrinsically motivated, because they do it out of pure enjoyment and desire to grow in business”. Maslow (1954:12) does explain that “self-actualization is rarely achieved, even as people or adults. But teachers must make sure that students have satisfied their deficiency needs in order to move on to their need for growth. Intrinsic motivation will not occur until students are well fed, safe in their
environment, and can love and respect their teachers and their classmates. From there on motivation will be like a pleasant breeze”.

While Maslow’s work was not as empirically sound as what is being demanded now from research projects, it is important to notice that despite the limitation the work has still stood the test of time. While there have been several theories which seek to explain human motivation such as Vroom’s Expectancy Theory (1964) and McGregor’s Theory X and Y (1960), Maslow’s theory still emerges and the primary explanation for human needs and motivation. The expectancy theory of motivation “provides an explanation as to why people choose to act out a specific behaviour as opposed to another and what they expect the result of that selected behaviour will be”. In other words, the expectancy theory seeks to explain scientifically why a person behaves the way they do and the cognitive processes behind that process.

4.4.6 Intrinsic Motivation

Intrinsic motivation refers to the inward impetus that inspire learners to strive to achieve contemplated social and personal objectives. This drive bring joy, fascination and enjoyability to perform the behaviour of interest (Ryan and Deci, 2000: 68-78). The study of Sansone and Smith (2000: 341–372), found that this inward motivation is important to enjoy control and operate efficient. When one is inwardly inspired, the results are, executing the behaviour with so much interest and enjoyability. Put succinctly, there behaviour and the end results are mutually exclusive. This individual executes the behaviour on his/her volition (Sutikno, 2007:1).

In the business context, “intrinsic motivation is operationally defined as self-gratification, pleasure in performing activities in studies instead of studying towards external rewards. For example, learners who enjoy studying no longer need to be encouraged or instructed to study. It is believed that with intrinsic motivation, learners are expected to progress and develop in their studies. Their performance will be generated by self-interest and self-determination. These attributes are created
spontaneously by internal stimuli”. They usually consist of enthusiasm that leads them to engage in their studies without expecting additional rewards.

According to Deci and Ryan (2000: 68-78), “intrinsically motivated learners tend to show gains in appearance, resilience, creativity, self-esteem and superiority when compared with extrinsically motivated ones. Learners who are extrinsically motivated only act when there is an external reward”. According to Altindis (2011: 8601-8609), “performing well in one’s studies is a function of motivation. To achieve high performance in one’s studies, educators ought to implement methods that motivate learners to perform their duties excellently” (Moonhead and Griffin, 2002:1). Research by Gagne and Deci (2005) has shown that “intrinsic motivation helps to improve performance. Effective intrinsic motivation improves the performance of learners and encourages them to work with diligence and dedication. It creates a sense of achievement, responsibility, satisfaction, participation and ownership that bonds among them and subsequently improves their studies”.

Apart from that, learners who are intrinsically motivated feel that they are valuable to the learning institutions and wish to progress in their studies. Obviously, intrinsic motivation not only brings positive outcome to learners’ performance but overall, in their future career as business people.

In other studies, by Ryan and Deci (as cited in London, 2009: 7), it was found that “intrinsic motivation makes an individual much more likely to be motivated and perform well as opposed to those that were extrinsically motivated,” and “intrinsic factors may increase satisfaction, organizational commitment, and satisfaction”. In fact, those who had more inherent intrinsic motivation were “less susceptible to the external motivation of financial intervention” (London, 2009: 248). Therefore, it can be concluded that the intrinsic motivators are psychological feelings that learners get from performing well in their studies.
Intrinsic motivation is defined as “the doing of an activity for its inherent satisfactions” (Ryan and Deci, 2000: 56) or “performing an activity for the pleasure inherent in the activity” (Story, Stasson, Mahoney, and Heart, 2008: 707) rather than for some outward and separable outcomes resulting in an external reward or recognition. In a study done by Lee et al., (2012:1), it was learned that intrinsic motivation is a complex neurophysiological activity wherein a learner goes through an intense psychological process that stems from inherent feelings.

Within learning and education, motivation research follows an academically popular theoretical framework wherein motivation is split into and defined by two main types: intrinsic and extrinsic motivation. Following Ryan and Deci’s (2000b: 68-78) definitions: intrinsic motivation refers to the learner undertaking something because of its inherent enjoyment or interest therein. This contrasts with extrinsic motivation, which stimulates the learner’s undertaking through external factors or consequences. For example, a learner might start learning entrepreneurship because they enjoy knowing more about business (intrinsic motivation, coming from within the learner themselves). If, however, the learner learns about the entrepreneurship for a pass in their studies, this is pressurized by their need to please their parents or teachers, which are the factors and/or consequences from without-, then this inherently translates to extrinsic motivation.

According to Ryan and Deci’s (2000b: 68-78), “intrinsic motivation was initially proposed as a critical reaction to the two behavioural theories that were dominant in empirical psychology from 1940s to the 1960s”. Intrinsic motivation is defined as “the doing of an activity for its inherent satisfaction rather than for some separable consequence. When an intrinsically motivated person is moved to act for the fun of challenge entailed rather than because of external prods, pressures or rewards” (Ryan and Deci’s, 2000b: 68-78). Ryan and Deci’s (2000b: 68-78) adds that “intrinsic motivation exists in the relation between individuals and activities. Learners are intrinsically motivated for some activities and not others, and not every learner is intrinsically motivated to study a particular subject. Intrinsic motivation exists in the nexus between a person and a task; some scholars have defined intrinsic motivation
In terms of the task being interesting while others have defined it in terms of the satisfactions a learner gains from intrinsically motivated engagement in their studies” (Ryan and Deci’s, 2000b: 68-78). According to Paananen (2010:1) autonomy has been linked to engagement in one’s studies, but the link has not been thoroughly studied.

Intrinsic motivation can be called as “free choice” type of measure. Since no “monetary incentives or control is applied, the decision whether to study a particular subject or course is based on the learner’s own will. It must also be noted that some motivational factors, such as peer pressure or socio-economic factors can have an impact” (Ryan and Deci, 2000b: 68-78). The more time learners spend with their studies, the more intrinsically motivated they are for that specific study. Deci (1981:1-10) states that autonomy seem to be a factor that increase the intention of intrinsic motivation within learners. Regarding education, several studies have shown that autonomy supportive (in contrast to controlling)” catalyse greater intrinsic motivation, curiosity, and the desire to overcome challenges (Deci, 1981: 1-10).

Several studies show that positive performance feedback enhances intrinsic motivation (Deci, 1971: 105-115). Majority of the research has focused on the issue of autonomy versus control. It is also said that extrinsic reward can undermine intrinsic motivation (Deci, 1971: 105-115). The authors state that “every type of expected tangible reward undermined intrinsic motivation. Furthermore, not only tangible rewards, but also threats, deadlines, directives and competition pressure diminished intrinsic motivation” (Deci, 1971: 105-115). On the other hand, choice and opportunity for self-direction appears to enhance intrinsic motivation, as they afford greater sense of autonomy (Deci, 1971: 105-115). Antoni (2009: 359-370) emphasizes that “although intrinsic motivation has received increasing attention in explaining human actions, our knowledge on their causes and effects are incomplete. He sees that this type of research lacks especially a perspective where the relationship between intrinsic motivation and social capital formation would be examined".
4.4.7 Outward Stimuli

Outward stimuli comprise of external impetus that inspires an individual to work hard to attain the predefined objectives. According to Sutikno (2007: 1), “extrinsic motivation arises from the influence of external activities such as solicitation, instruction or coercion to direct learners to study in order to get rewards in return. Types of extrinsic rewards are ranging from benefits, awards, pay, compensation and honours which are given for a good performance” (Muogbo, 2013:24-32). According to Mankoe (2006:1), outward stimuli take diverse forms which include conducive work environment, voyaging benefits, appealing compensation, and visionary leadership.

In the learning setting, outward stimulus is seen as a power to move the students to act in a way that will bring advantages to them and their families. Outward stimulus is made from outer boosts and can be animated through acclaim, impetuses, prizes, awards, grades, and different advantages. An outwardly stimulated learner will study exceptionally well in the studies due to outward rewards.

The greater the number of outward stimuli an individual possesses such as a possibility of establishing one’s own business or getting a high paying on, the better performance the individual achieves in his/her chosen course. Muogbo (2013: 24-32) vividly and eloquently posits that outward stimuli result in an increased performance.

Outward stimuli are defined by London (2009: 5) as “doing something because it leads to a separable outcome . . . [which means] that outside encouragement or rewards are earned from performing a task rather than actual enjoyment of the task.” Outward rewards- generally monetary – are the tangible rewards that students contemplate, to perform well in their studies, like employment, compensation, rewards, advancements, and benefits.

They are called “outward” because they “are external to the study itself, and other people control their size and whether or not they are granted. Money, however, is not
the only motivator that is considered outward. Factors such as owning a business, type of service, job security, and advancement opportunities are also considered outward stimuli” (London, 2009: 5). Outward stimuli take the concentration off doing the actual task competently and on to doing what is important to procure a prize. Some of these, for example, advancements and different honours can prompt an increment in inward stimulus, yet the underlying inspirations themselves are outward. (Cooper and Jayatilaka, 2006: 153-172).

The simplest definition of outward stimulus is performing a behaviour because it leads to a separate outcome. Outward stimulus is a construct that pertains whenever an activity is done to attain some separable outcome. Outward stimulation thus contrasts with inward stimulation, which refers to doing an activity simply for the enjoyment of the activity itself, rather than its instrumental value (Ryan and Deci, 2000: 68-78). Although students may not be spurred by money-related motivators, it can't be precluded that their choice to study entrepreneurship is incited by other outward motivations. Put succinctly, the greater part of behaviour performance an individual actualises, hardly happen naturally (Ryan and Deci, 2000: 68-78).

Outward stimulation can be portrayed in a circumstance where a student who does a specific course simply because he or she is coerced to study the course to accomplish the separable result to avert sanctions (Ryan and Deci, 2000: 68-78). As a similar example, outwardly stimulated learner can be a learner that only submits his tasks just before a deadline in the fear that not submitting a task would get his educators to impose sanctions on him or her for not doing to.

An independent, or self-determined, type of outward stimulation is a force through distinguishing proof. Here, the individual has reconciled with self-significance of the conduct and has along these lines acknowledged a regulation as their own. Lastly, the most independent type of outward motivation is coordinated regulation (Ryan and Deci, 2000: 68-78).
4.4.8 Effectiveness of Extrinsic Motivation

While most people may puzzle on whether extrinsic motivation is effective, the following is a list of reasons as to why this might be the case.

- Outward stimulation inspires a learner to actualise a behaviour even if there is no interest in it. But it does not mean that the learner does not get pleasure from studying a particular subject or course or completing a particular school subject. It is just that the outward reward prolongs the lifespan of the anticipated reward even if interest has evaporated.
- It serves as a catalyst for the learner to set goals for their future. By setting their eyes on the prize, the learners will resort to playing by the rules and even develop a huge amount of persistence towards getting that reward.
- Outward stimuli can jettison mental fatigue. The presence of outward stimulation distracts a learner from the pressure that they get from their studies.
- Outward stimuli are not sustainable. Once the reward is eliminated, the learner’s performance will be reduced or eliminated altogether.

4.4.9 Finding the Nexus between Inward and Outward Stimulation

Inward-outward stimulation represents a continuum. At one end we find some people inspired by tangible, outward benefits, such as the prospects of getting an employment and job security. Others may be inspired by factors such as creating an employment for the others on the opposite end of the spectrum. This group of individuals are prone to disfavouring tangible gratification such as monetary rewards, in favour of self-satisfaction.

Any possible accruals from inward-outward stimulation, one needs to appreciate that people can move with easiness along any continuum. As opposed to viewing these stimulating ingredients as opposites, other learners are stimulated by the amalgamation of these two factors. And that such motivation is also influenced by several other complex, social, and economic factors, such as age, socio-economic
status, etc. To make it easier for learners to get motivated in their entrepreneurial studies, the following should be realised.

- Entrepreneurship educators ought to build a strong business case for teaching entrepreneurship to learners; explain why the subject is important; and make it interesting and worthwhile. In the process, some of the educator’s enthusiasm will be transmitted to the learners, who will become interested. Similarly, educators should also explain what is expected on assignments or activities; this will help learners to perform well in their entrepreneurship studies.

- Learners who lack exceptional inward stimuli to study entrepreneurship can employ outward stimuli in the form of possibilities. Learners, like adults, continue or repeat behaviour that has a potential of being rewarding in the end. Rewards for good work produce good feelings.

- Learners respond with interest and motivation to educators who appear to be loving and caring. Entrepreneurship educators can help produce these feelings by sharing entrepreneurial experiences with the learners. Such personalizing of the learner-educator relationship helps learners to see educators as approachable human beings and not as aloof authority figures. Learners will attend to an educator who appears to be a “normal person,” who had challenges in life or as a youth (or more recently) and survived them.

- One of the major keys to motivation is the active involvement of learners in their own learning. Lecturing is a relatively poor method of teaching. It is better to get learners involved in entrepreneurial activities, real business problem-solving exercises, helping to decide what to do and the best way to do it, helping the educator, collaborating with each other, etc. Brighter learners will also see themselves as necessary, integral, and contributing parts of the learning process through participation like this.

- By beginning lessons with the real-life entrepreneurial examples, evidence, stories, and so forth and by arriving at conclusions later, an educator can maintain interest and increase motivation, as well as teach the skills of analysis and synthesis.

- Learners’ basic needs have been identified as survival, love, power, fun, and freedom.
Attending to the need for power could be as simple as allowing learners a freedom to choose from among two or three business scenarios to solve. Many learners have a need to have fun in active ways - in other words, they need to be noisy and excited. Rather than always avoiding or suppressing these needs, entrepreneurship educators must design an educational activity that fulfils these needs.

Whilst inward stimuli are generally accepted as stronger predictors of possible success accruing from performing a behaviour than outward stimuli (Cordova and Lepper, 1996: 715-730; Deci and Ryan, 1995: 31-49), a recent meta-analysis by Cerasoli et al. (2014: 980) found that inflows accruing from each type of stimuli depend on the context and the contemplated behaviour. Put succinctly, autonomous stimulation favours open-minded activities than outward gratifications, whilst outward incentives lean towards close-ended activities, such as tasks assessed in terms of speed and accuracy. However, notwithstanding the forgoing, unbeknown is the awareness or lack thereof of this activity-stimulation relationship and whether this relationship precipitates the envisaged results.

4.4.10 Trade-Offs of Outward and Inward Stimuli

Inward stimulation accrues from saturation of basic needs which may include, 1) need for independence, 2) ability to successfully discharge a task relevant to a contemplated behaviour, and 3) need for association (Ryan and Deci, 2000b: 68-78; White, 1959: 297–333).

The discourse of inward stimuli versus weaknesses of outward stimuli has been protracting for some ages (DeCharms, 1968:7-11; Nakamura and Csikszentmihalyi, 2001: 337–341; Ryan and Deci, 2000b: 68-78). Inward stimulation appears to have unequivocal rewards which can be found in diverse set-ups. One such context is the pursuit of goals, where inward stimulation assists to bring about necessary stamina for effective carrying out of difficult tasks (Benware and Deci, 1984). The harmonious relationship exists between inward stimulation and goal attainment (Kruglanski et al.
2018), whereas outward stimulation is often associated with a negative effect in a form of disenchantment and intermittent in relation to goal pursuing (Ryan and Deci, 2000a:68-78). Researchers such Deci, Koestner and Ryan (1999, and Deci and Ryan (2012) believe that outward stimulation in a form of external benefits tend to hinder attainment of basic needs.

By the same token, authors such as Cerasoli et al. (2014: 980) and Higgins et al. (2010) debunk the notion of inward stimuli being superior to outward stimuli, stating that outward benefits possess the ability to inspire performance in certain circumstances. The extent to which inward-outward stimuli interact to inspire a contemplated behaviour depend on the mode of assessment chosen (Cerasoli et al., 2014: 980). A distinction needs to be drawn between tasks that are quality based and tasks that are quantity based (Cerasoli et al., 2014: 980). Tasks that are quality based dictate strong task-absorption and strict focus. This tasks class is adequately assessed by means of standard-performance comparison. Entrepreneurs are expected to be creative in their approach to problem solving. On the other hand, quantity-based tasks are predominantly discharged with simplicity and tend to be routine-based. The assessment method for routine-based tasks is usually those that utilise indicators metrics.

The study of Amabile et al. (1986) attempted to answer the question of inward-outward stimuli trade-offs, within the confines of close-ended tasks. They found that the utilisation of interest-stimulating tactics increased inward motivation to perform a behaviour. They, however, cautioned against unintended impairment on the assessment of close-ended tasks.

Furthermore, Sanson et al. (2012) carried out a study which sought to comprehend the efficacy of interest stimuli within the context of on-campus versus off-campus students. The study found that off-campus respondents with high interest stimuli usage reported higher curiosity of studying. Notwithstanding this reported higher curiosity, grades did not improve on a close-ended assessment such as multi-choice questions and short questions. On the strength of the forgoing observations, a conjecture is made that this is due to inward stimuli affecting susceptibility to “seductive details” to
students. According to Sanson and Thoman (2005), seductive details refer to a fascinating and appealing information which steals one’s intention, even though it does not have any relevance to the task at hand and therefore not examinable.

On the bases of the forgoing discussion, this study makes the inference that context dictates a suitable choice between inward and outward stimuli. The study argues that situational approach proves justifiable and mergers best the opposing views mentioned above. This is so because this approach allows flexibility and adaptability while observing the fundamentals of both inward and outward stimuli.

4.5 CONCLUSION

This chapter looked at the literature which examined several key enablers and drivers for entrepreneurial intention. One of the conclusions from literature is that much of the motivations can be broken down into pull and push factors. The pull factors and the innate attractions from entrepreneurship which attracts an individual to undertake that career path while push factors are a set of variables that leave an individual with no option but to pursue entrepreneurship. Looking specifically at students, one of the conclusions from literature is that there is need to inculcate a sense of curiosity within students when it comes to entrepreneurship. This allows them to study the subject on their own even outside the classroom.

The other concept that was explored in the chapter is that of intrinsic and extrinsic motivations. The former relates to natural interest while the latter is driven by an expectation of rewards. While literature concedes that these might work together, and they often do, the goal of teachers is to pursue intrinsic motivation. Lastly, to contextualise the issue of motivation and drivers, the study also looked at the Maslow's Hierarchy of needs and the arguments by Maslow that there are some needs that need to be satisfied first before one begins to pursue the others.
CHAPTER 5: RESEARCH METHODOLOGY

5.1 INTRODUCTION

This chapter outlines the methods, techniques and processes that will be used to collect empirical data. The chapter begins by outlining the overall research methodology as well as the preferred epistemology. The chapter also presents the study’s research design, the research paradigm, a justification for the positivist approach that is adopted in the research as well as an outline and justification of the research instruments that are used to collect data.

The chapter also specifies the research population from which the research participants are drawn. The chapter also outlines (a) the sampling methods that was used to search for respondents from the research population; (b) the sample size to determine how many of the research participants were needed for the research as well as the sample frame which specifies the exact group of the research population from which the research participants were drawn.

Lastly, the chapter also outlines the various ways the collected data was handled and subsequently analysed and presented in the document. The mode an extent of checks and balances put in place to ensure data reliability and validity is presented herein. Lastly, the chapter further documents the various steps and precautions taken to ensure that the research is undertaken in an ethically sound manner. This includes the various measures taken to protect the privacy of the research participants, seeking their permission in the project and taking steps to ensure that no harm comes to them and all university protocols regarding research ethics are observed.
Table 11: Structure of Chapter 5

- Chapter 5
- Introduction
- Research Methodology
- Research Paradigm
- Research Design
- Research Method
- Survey Instrument Design
- Ethics
- Data Collection
- Multivariate Analysis
- Validity and Reliability
- Statistical Method
- Chapter Summary
5.2 RESEARCH METHODOLOGY

According to Haralambos and Holborn (2004:864) cited in Gamede (2013:144), a research methodology is a collection of research practices and methods designed to collect data, using some specific data collection and management philosophies. In other words, a research methodology is the collection of several research procedures with the preferred end result being a situation in which the collected research data answers predetermined research questions (Choudhary, 2017:95). Consequently, a research methodology is something that the researcher designed from the start, with specific steps and processes being taken at given stages towards the end result of answering the research questions (Hussey and Hussey, 1997:20). Consequently, a research methodology is one long sequence of events on how the research is to be conducted.

Research methodology is made up of research design and research method (Choudhary, 2017:95). Research design is the process through which the researcher organises the research structure or the conceptual blueprint on how the research is going to be carried out (Akhtar, 2016:68). A research design can be said to be the deliberate and systematic processes of collecting data, analysing that collected data, interpreting the findings and presenting the research findings (Goundar, 2012:9). The epistemological consideration by researchers eventually determines the research methodology and subsequent research design to be employed in a study (Choudhary, 2017:95).

For this study, a deductive, positivist approach was employed. A positivist approach seeks to ascertain an understanding of the subject matter that is being examined by narrowing down a general viewpoint to a more specific viewpoint. To achieve this, a deductive approach using a quantitative research tool, a questionnaire, was used for data collection. In keeping with the study core construct of this study, and appreciating that the study also includes imperceptible constructs, a positive-deductive modus operandi is fanaticised. The quantitative approach, which is consistent with the positivist paradigm was chosen so that it can confirm the research findings and
establish some links between the study variables. The research paradigm is discussed more fully below.

5.3 RESEARCH PARADIGM

In a research, more than one paradigm might be employed (Choudhary, 2017:95). A research paradigm discloses the researcher’s primary beliefs on a compatible modus operandi of the study and the approach of presenting findings (Bryman, 2016:16). Bogdan and Biklen (1998:22) describe paradigm as a “loose collection of logically related assumptions, concepts, or propositions that orient thinking and research”. Naughton, Rolfe and Blatchford (2001) cited by Mackenzie and Knipe (2006:3) define paradigm as a researcher’s perception of the nature of knowledge, methodology of acquiring knowledge and validation of research instrument. Mackenzie and Knipe (2006:3) posit that instead of referring to paradigms, other researchers use semantics such use epistemology, ontology and methodologies. Mackenzie and Knipe (2006:3) provide a list of research paradigms which include positivism, post positivism, constructivism, critical theory and participatory paradigm. Previously, research paradigms were differentiated by researchers’ assumptions of ontology and epistemology (Mackenzie and Knipe, 2006:3). Through the evolution of research, recent researchers’ paradigms include axiology, rhetoric and methodology (Mackenzie and Knipe, 2006:3). Creswell (2009) cited in Mackenzie and Knipe (2006:3) demonstrates that there are five philosophical paradigms – rhetorical, axiological, epistemological, ontological and methodological (usually referred to as qualitative and quantitative paradigms).

The pragmatic paradigm seeks some practical solutions to society's afflications. Because of its practical underpinnings, the pragmatic paradigm understands that sometimes it is possible to undertake multiple approaches to a problem as a single approach might not suffice (Cersosimo, 2019:212-225). In the case of research methods, the pragmatic paradigm in mixed methods research presupposes that researchers are enabled to match compatible methods to the contemplated objective of the study and continually swipe approaches in line with the dictates of the research
study. The other underlying characteristic of the pragmatic paradigm is that there is no single 'reality' to be interpreted or seen. Rather, there might be a multiplicity of interpretations which reflect the multiple research methods followed by the varied viewpoints of the people consulted. Furthermore, researchers interpret study results through the lens of their subjective concerns and personal values. Where there are fundamental differences in opinion, a negotiated reality is proposed which acts as a compromise of the opposing views. It is important, however, to point out that while the pragmatic approach encourages a multiplicity of approaches and actors, the paradigm is silent on how the multiple voices and approaches are integrated while at the same time maintaining the goal of solving the problem in an ethical manner.

Looking at the transformative paradigm, one of its underlying tenets is that it provides an interactive link between the research subjects and the researchers themselves in a context that is power neutral. The transformative paradigm occurred when through historical processes and incidences of inequity, several communities were pushed to the margins as far as knowledge production is concerned. The transformative paradigm gives a voice to these marginalised communities through the research results of authors who seek social justice and human rights. In other words, the transformative paradigm entails a framework of belief systems that engage culturally diverse groups with the end goal being social justice. Within this context, knowledge is historically and socially situated, and the underlying concern is observing issues of trust and power especially when dealing with marginalised participants. Unlike other paradigms, the pragmatic approach provides a research space that is more equitable, more democratic, just and conductive to knowledge relationships. Mertens (2010:469) argues that when implementing a transformative paradigm, it is also important to consider the use that will be made of the research results. The reason behind is, when employing the transformative paradigm, it is important to assume that the research results and subsequent interpretations will be used towards social justice.

The positivist paradigm predicts and seeks to explain what is happening within society by looking for regular patterns and causal relationships between constituent subjects (Lee, 1991: 87-94). The origins of the positivist paradigm can be traced to the 19th
century when Auguste Comte rejected the contemporary metaphysics and went on to make the bold claim that only scientific research methods can produce the truth about reality. In its later iterations, the positivist paradigm was borrowed from David Hume’s ‘philosophical ontology’. The underlying assumption was that reality was made up of multiple micro-level and independent events and all these need to be counted and accounted for and their unique relationships established to determine if one event has a causal effect on the next. The point of departure of the positivist approach is that researchers can explain situations through models and variables that are used in research that are deductive and where the different variables can be measured empirically. Because of its emphasis on the verification of facts and the causal relationship between variables which sometimes leads to statistical correlations (upon which hypotheses are ‘proven’) the positivist paradigm has been associated with quantitative research methods. However, there have been some cases where, using quantitative methods, a causal link was established using rigorous empirical means suggesting that the positivist paradigm is not exclusive to quantitative research.

The interpretivist paradigm is one through which researchers see the world through the interpretations and perceptions of the research participants. This becomes the basis upon which research questions are answered and theories formulated. The other important tenet of the interpretivist paradigm is that the environment and context in which the research is conducted is crucial in the interpretation of the gathered data. The other core underpinning of the interpretivist paradigm is that no ‘independent reality’ exists. Rather, all reality is socially constructed. Because almost all research is conducted through a Western paradigm, the context of their transition between cultures is important. One of the observations that have been made about the interpretative paradigm is that it is more subjective than objective. This is in the inherent nature of the paradigm to value subjectivity as opposed to the positivist understanding which makes the claim that objective research on human behaviour is possible. Because of its fluid and flexible nature, the interpretivist paradigm does not seek answers in prescriptive ways, and neither are its supporting methodologies rigid. Instead, the study approaches the research from the experiences of the social unit that is to be studied. This makes the paradigm more closely to the programmatic approaches and further from the positivist approach which seeks a single reality.
Instead, interpretivism is inclusive since it accepts the different realities from different groups and individuals (Lee, 1991:87-94). Tables 12, 13 and 14 below closely looks at these five paradigms as well as their four dimensions. This study uses a positivist research paradigm. The positivist paradigm is characterised by a high degree of objectivity, recognising ideas as facts rather than opinions or personal impressions.
Table 12: Paradigms and Dimensions of Research

<table>
<thead>
<tr>
<th>Principles</th>
<th>Positivism</th>
<th>Methodological Pluralism</th>
<th>Constructivism</th>
<th>Critical Theory</th>
<th>Participatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontology (The nature of reality)</td>
<td>Objective real world driven by reality.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Human species is logical, and extrinsic environment influences their behaviour (extrinsic environment affects human being homogeneously).</td>
<td>Reality can never be adequately fathomed. The reality is subjective and not everything is known.</td>
<td>Multiple local and specific constructed realities, which do not exist, are constructed by human beings. Human beings are social entities that construct realities as they go. There no existing and irrefutable repository of reality.</td>
<td>Reality is a function of critical examination and critique of political, economic and social factors.</td>
<td>Reality is created by way of intellect and cosmos. Human beings form reality by way of behaviour and critical reflection.</td>
</tr>
<tr>
<td></td>
<td>Focuses on behaviourist approach and mechanical techniques.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Adopted from Choudhary (2017:97), Aliyu, Signhry, Adamu and Abubakar (2015:3-8)
Table 13: Paradigms and Dimensions of Research

<table>
<thead>
<tr>
<th>Principles</th>
<th>Positivism</th>
<th>Post Positivism</th>
<th>Constructivism</th>
<th>Critical Theory</th>
<th>Participatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epistemology</td>
<td>Knowledge can be understood by way of mechanical models and the use of tested hypotheses. Knowledge from sample findings hold true for the entire population (generalisation of sample findings).</td>
<td>Interaction occurs between researcher and world. Knowledge is deduced by using statistical models. Endeavours to retain neutrality. Modified Dualist.</td>
<td>There is no universal knowledge. Knowledge is not only achievable by means of observable phenomena. Individualistic convictions subjective justification, values, and subjective comprehension of a phenomenon construct knowledge. Knowledge is a product of shared meanings in a social setting.</td>
<td>Knowledge emanates from lived experiences and social interactions. Knowledge bestows power and is distributed. A phenomenon is comprehended within the context of politics, economics and society.</td>
<td>Knowledge is created by means of intellect-cosmos participatory effort. Extension of epistemological paradigms of exploratory and positional co-effort findings. Human beings decide knowledge on the bases of critical reflection.</td>
</tr>
</tbody>
</table>

Source: Adopted from Choudhary (2017:97), Aliyu, Signhry, Adamu and Abubakar (2015:3-8)
<table>
<thead>
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<th>Principles</th>
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<th>Post Positivism</th>
<th>Constructivism</th>
<th>Critical Theory</th>
<th>Participatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methodology (How the researcher finds the reality)</td>
<td>Experimental and quasi-experimental designs; manipulative/surveys; hypothesis testing; mainly quantitative methods.</td>
<td>Exploratory and semi-exploratory design. Consultation of amply sources of evidence to conclude a finding. Uses both qualitative and quantitative methods.</td>
<td>Dialectical: Individual constructions are gathered and refined by inductive reasoning; hypothesis, theories and concepts are developed. Mainly uses qualitative techniques, even though descriptive quantitative techniques can be used in some instances.</td>
<td>Dialogic/dialectical: Seek to eliminate false consciousness. Primarily qualitative methods include observation, grounded theory and case study methods.</td>
<td>Collaborative action inquiry with political participation; use of language underpinned in experimental context.</td>
</tr>
</tbody>
</table>

| Axiology (Knowledge is considered intrinsically valuable) | Knowledge is inwardly imperative. Global knowledge is imperative for the undertaker of the research. Rigid pragmatism which perceive potential of the research. | Business knowledge is important to achieve social enfranchisement, which is an end in itself and is intrinsically valuable. | Focusing a balance of autonomy, cohesive social groups, and societal chain of command. |

Source: Adopted from Choudhary (2017:97), Aliyu, Signhry, Adamu and Abubakar (2015:3-8)
5.4 RESEARCH DESIGN

The researcher appreciates the importance of outlining a business case for research processes and techniques used in this study. As shown in the reviewed literature, studies mainly fall into three categories, namely, exploratory, descriptive or explanatory (Choudhary, 2017:99). The core of exploratory research is an attempt to discover the unknown phenomenon (Sweberg, 2018:2). Exploratory research, on the other hand, does not seek to find answers to a given phenomenon but rather to comprehend an issue in depth which allows the researcher to ask some more in-depth questions (Choudhary, 2017:99). Exploratory research is preferred in circumstances where there is a lack of adequate extant studies on that problem that has commenced (Choudhary, 2017:99). Collis (2009) cited by Choudhary (2017:99) posits that “exploratory study seeks to find out any extant pattern, idea or hypothesis, as opposed to testing a hypothesis. It entails empirical evidence based on observations or experiences of the researcher” (Choudhary, 2017:99). Given its exploratory nature some of the techniques that can be employed include historical analysis, observations and case studies (Choudhary, 2017:99). According to Collis (2009) cited by Choudhary (2017:99), exploratory research is not designed to give some conclusive answers to research questions and problems that are raised but rather to provide an overview from which some further enquiry can be made.

Descriptive research, on the other hand, provides more focus than exploratory research when looking at a given issue. The focus of descriptive research is to describe a phenomenon and its characteristics (Nassaji, 2015:129). Descriptive research identifies issues of interest or research problems and then goes on to collect information on that particular issue (Choudhary, 2017:99). Collis (2009) cited by Choudhary (2017:99) states that descriptive research gives emphasis to the ‘who’, ‘what’ and ‘how’ when conducting research. This contrasts with research which focuses on the ‘why’. While collecting data to answer the research questions, descriptive research uses multiple techniques to collect data, and these includes both qualitative and quantitative methods.
Lastly, explanatory which is also sometimes referred to as analytical research also builds on both descriptive and exploratory research in its pursuit of the answers to the question ‘why’ a phenomenon is happening or happened (Choudhary, 2017:99). In trying to answer the ‘why’ question, exploratory research also tries to find answers not only by measuring variables and phenomenon but also trying to establish the links and correlations between them (Choudhary, 2017:99). Finally, exploratory research identifies and controls variables within a given study (Choudhary, 2017:100).

Predictive on the other hand tries to determine the likelihood of a situation occurring or being replicated elsewhere (Sebunje, 2021:3). Predictive research seeks to estimate the likelihood of something happening using data from hypothesized and correlated relationships (Sebunje, 2021:3). Besides predicting the likelihood of something happening, predictive research also answers the ‘where’, ‘how’ and ‘why’ questions (Choudhary, 2017:100). The best case scenario for predictive research is when the research questions starts with the phrase ‘what if’. In this case, there will be need for some predictive modelling to provide some likely scenario, based on probabilities to provide the answers. Usually, the results from predictive research are generalised and, in most cases, based on the current situation rather than a synthesis of long-term data.

In the context of the various descriptions or research designs and their respective strengths and weaknesses, this study adopted a descriptive research design. This is because the study seeks to better describe a phenomenon which is already known. This was done by looking at the local and contextual factors and variables which might help to explain the uniqueness of the given situation.

### 5.4.1 Research Location

This part explains the location of the study as well as the research environment. This is important because it also determines some of the responses that is provided by the
research participants. The primary research environment for this study was primarily academic with the primary focus being matric students with a business inclination. The research was conducted in KwaZulu-Natal, South Africa.

5.4.2 Unit of analysis

The unit of analysis is a major entity of a phenomenon that is being investigated by the study which harmonises research problem and research questions (Collis, 2009:115). The unit of analysis is an integral part of the study as it sets the foundation upon which the research problem is built and serves as the bases upon which to concretise the research study. Choudhary (2017:100) posits that adequately defining unit of analysis empowers the study to formulate congruent research objectives. A well thought out and eloquently articulated unit of analysis provides a fertile ground for data collection, extent of the sample and resolve on accurate choice of research methodology.

Furthermore, the timeously the unit of analysis decision is made, the more accurate decisions are made concerning the fundamentals of the research study (Choudhary, 2017:100). The study is seized with the responsibility of establishing the presence and extent of entrepreneurial intention of matric commerce students, and to what extent does its transmutation manifest into entrepreneurial behaviour. Contemplating the level of the unit of analysis as low as conveniently possible, students were preferred as sample of matric commerce students from rural areas of KwaZulu-Natal, South Africa.

Previous studies (Krueger et al., 2000:418; Shinnar et al., 2012:3; Maes et al., 2014:14) fanaticise the resolve of student sample. The justifying rationale for the resolve of student sample, stems from the texture of the study, which is the investigation of entrepreneurial intention of matric commerce students. The secondary rationale for the resolve of favouring students is because of the imminent and inevitable career choice, amid a glaring high rate of unemployment in South Africa. Furthermore, the fanaticism of the
sample of students is informed by the possibility of accruing diversity of responses in relation to eminent career path resolves (Choudhary 2017:101). Diversity of respondents’ rejoinders suggest favourable fanaticism towards entrepreneurship career path, whilst the remainder fanaticise traditional employment.

5.4.3 Fine-tuning the Unit of Analysis

Previous research studies have concluded that choosing screening questions pertaining to differentiating criteria at the infant stage of the survey enables the prospect to refine the sample (Choudhary 2017:101). The current study formulated screening questions from the infant level of the survey to ensure that the correct respondents (matric commerce students) participate in the survey. Data is representative of matric commerce students and can be generalised for the entire population. Questions about the age group of respondents were also formulated. Only valid respondents graduated to analyses of data stage.

5.5 RESEARCH METHODS

A research method is a sum total of a research tactics and theoretical analysis for sifting of congruent methods to attain research objectives (Choudhary 2017:101). Adequate, mutual inclusive, and justified tactics are discussed in the literature review which can be categorised into two broad research approaches which are qualitative and quantitative (Choudhary 2017:101).

5.5.1 Qualitative versus Quantitative Research Methods

According to Rouzies (2014:195), research is always underpinned by a certain research philosophy. Most research studies use qualitative, quantitative or a mix of the two research methods. Qualitative research is concerned with a set of methodological
approaches which seek to generate an in-depth and interpreted comprehension of social world by way of studying both social and material circumstances of people (Kemparaj & Chavan, 2013:1). According to Joshi (2011:1) qualitative research is appropriate in understanding a social phenomenon. Qualitative studies deal with phenomenon questions of “how”, “what” or “why” (Kemparaj & Chavan, 2013:1). According to Kemparaj and Chavan (2013:1), qualitative research has five characteristics. Firstly, it has competence of analysing non-numeric data. Secondly, it prompts a researcher’s involvement when carrying out the research. Thirdly, qualitative research is concerned with gathering meaning and understanding of the variables. Fourthly, there is flexibility of data collection and analysis so as to allow assessment of emergent issues. Finally, qualitative research provides a rather unique output which encompasses comprehensive descriptions, typologies, explanations, categories and patterns of relationships.

On the other hand, quantitative research is concerned with the use of numerical data in explaining a phenomenon and uses methods such as mathematical, modelling and simulation, experimenting and testing (Issacs, 2014:318). According to Wilson and MacLean (2011:186), quantitative research is concerned with question such as “how many/much”. Yilmaz (2013:311) argues that generalisation of findings across the population is easy in quantitative research. Quantitative research has earned popularity amongst researchers as a result of its competence of establishing cause and effect relationship between research variables (Fassinger & Morroiw: 2013:71).

Furthermore, just like qualitative research, quantitative research has its distinguishing characteristics. Berdt and Petzer (2011:217) argues that there are four distinguishing characteristics of quantitative research. Firstly, data collection instruments contain items that solicit measurable characteristics of the population such as humans, groups, organisations/institutions, products and events. Secondly, data gathering instruments may be piloted to ensure the accuracy, reliability and validity of data. Thirdly, data obtained using quantitative methods can be analysed by way of tables, graphs, or figures that consolidate large numbers of data to show trends, relationships, or differences
among variables. This affords easiness of understanding the research report. Finally, quantitative models can predict outcomes. It is possible to develop scenarios that can be constructed by using complex mathematical computations with the aid of computers.

5.5.2 Business Case for Quantitative Approach

A quantitative cross-sectional survey design was preferred because the primary objective of the research study entails the collection of primary data and testing of theoretical model to predict future behaviours (Issacs, 2014:318). Previous research in entrepreneurship discipline suggest that human beings comprehend the theory and the contemplated results by means of theory prediction and theory elucidation (Choudhary 2017:101). In Gregor (2006: 620), it is provided that theory is a useful tool to prognosticate the nature of an issue at hand, which in turn allows for empirical testing of theory. Notwithstanding lack of comprehension of causation of a phenomenon, accurate prognostication of a theory under auspices of quantitative tools and compatible techniques become possible (Gregor 2006: 620). Previous studies such as Forbes (2005) and Krueger (1994:1) have done exceptional work using Entrepreneurial Event Theory (EET) and Theory of Planned Behaviour (TPB) as theoretical frameworks to validate the use of quantitative methods to understand the casual relationship variables of the models. The current study fanaticises Structural Equation Modelling (SEM). Furthermore, the current was unwilling to miss an opportunity to benefit from the already tested compatibility of quantitative methods (Malebana, 2012) with the variables of the current study, hence the choice of the of quantitative method (structured survey instrument) which accrued greater convenience for data collection and data processing of sizable data, and the subsequent generalisation of findings to the entire population (Choudhary 2017:101).

5.6 MEASURING INSTRUMENT

The intent of this section is to detail the employed survey questionnaire for purposes of deducing responses, which is configured with six constructs. The research study used a
questionnaire to collect data from the respondents. According to Saunders, Lewis and Thornhill (2012:416), “a questionnaire is a set of questions addressed to a statistically significant number of subjects as a way of collecting information that will be used to answer research questions”. Zohrabi (2013:255) suggests five advantages of using questionnaires. The first advantage, questionnaires accommodate large scale data. The second advantage, questionnaires are easily dispersed to a large population. The third advantage, questionnaires facilitate data collection. The fourth advantage, questionnaires retain respondents' anonymity. The firth advantage, questionnaires facilitate data homogeneity and data accuracy because they are administered simultaneously to a large set of respondents. Even though questionnaires come with the foregoing advantages, there are disadvantages for using questionnaires in collecting primary data. The quality of data collected can be compromised because answers can be inaccurate and questionable. The second disadvantage of questionnaires is the possibility of low response rate due to unclear questions (Zohrabi, 2013:255).

According to MacMillan and Schumacher (2001: 305) surveys are significant and often used for three reasons: educational research, sociology and political science: Surveys are versatile. Surveys are efficient as they are generalizable. The above characteristics of the research design seem to meet those needed to accomplish this study, especially regarding the generalizability of the study. This means, therefore, in less time and less costs, credible information can be established, and findings can be inferred to a larger population.

5.6.1 Justification of the Questionnaire

The questionnaire is going to be the primary tool that will be used to collect empirical data. Previous studies (Malebana, 2021; MacMillian and Schumacher, 2001) have ascertain the validity, reliability, effectiveness and compatibility of questionnaires to study constructs and units of analysis similar with that of current study. The questionnaire has
been defined as a series of questions, with a single overall theme, designed to elicit specific information from selected respondents.

The primary advantage of questionnaires is that they are a standardised tool which is presented to all respondents. This way, the responses are not affected by the mood of the researcher. The other advantage of questionnaires is that the opinion of more respondents can be collected using a questionnaire than through other data collection tools like an interview guide. This way, where representativeness is key to answering the research questions and achieving the research objectives, the questionnaire will be the optimum tool.

5.6.2 Structure of the Questionnaire

The study made use of a coded questionnaire with the following question structure: The first section asks the biographic information such as age, gender, level of study, location, household income, name of educational institution. This information was collected using a set of questions with predetermined answers. All possible answers are considered in this section. However, to be sure, there was an ‘Other’ option at the end of each questionnaire for those instances when the given answers are not enough to answer the question.

The second question looks at the entrepreneurial inclination of the research participants. This included their academic pursuits, areas of interest as well as some entrepreneurial ventures they might have undertaken before.

The third section presents a set of Likert Scale questions. Likert scale questions provide a range of possible answers through which the researcher is expected to either agree or disagree with them. For example, the possible answers range for a five point Likert scale
includes answers such as ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’. Given the above set of questions, a research participant was given a statement to which they responded with the five possible responses on the Likert scale showing the extent to which they agreed with the statement.

For this study the Likert scale was used for primarily two reasons. First, the Likert scale was used to test some of the theories and concepts from the review of Literature. For example, a Likert scale question determined if the household that a learner comes from might have an influence on them becoming an entrepreneur. Additionally, the Likert Scale was used to come up with possible recommendations. Again, these recommendations drawn from literature was presented to the respondents who in turn had to decide the extent to which they agree with them using the possible five-point Likert scale responses.

5.6.3 Personality Traits

Previous sections have proven beyond reasonable doubt the value of reliance on research instruments of which validity and reliability have been tested. Most questions in sections E were adopted from the previous research and validated measures for the four key personality traits of the proposed conceptual framework were utilised. These personality traits were Locus of Control, Innovativeness, Need for Achievement and Entrepreneurial Self-efficacy. Table 15 presents the original scales and their reliabilities.
Table 15: Biographical details questions from the measuring instrument

<table>
<thead>
<tr>
<th>Personality Traits</th>
<th>Original Author</th>
<th>Scale Used</th>
<th>Number of Items</th>
<th>Cronbach Alpha α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of Control</td>
<td>Rotter (1966)</td>
<td>Likert</td>
<td>10</td>
<td>.74</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>Jackson (1994)</td>
<td>Likert</td>
<td>9</td>
<td>.86</td>
</tr>
<tr>
<td>Need for Achievement</td>
<td>Langan-Fox (1991)</td>
<td>Likert</td>
<td>5</td>
<td>.82</td>
</tr>
<tr>
<td>Entrepreneurial Self-efficacy</td>
<td>Forbes (2005)</td>
<td>Likert</td>
<td>4</td>
<td>.85</td>
</tr>
<tr>
<td></td>
<td>Chen et al. (1998)</td>
<td>Likert</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher

5.6.4 Social Capital

Questions in Section F as measures of social capital were adopted from Liñán and Santos (2008:448) and included personal knowledge of entrepreneur within family circle, approval of entrepreneurship by family, and acceptance of entrepreneurship in the community. Questions 1 to 9 on social capital were adopted with minor alterations from Malebana (2012:656); Liñán (2008:270); Liñán et al. (2007:9); Liñán and Chen (2009:612-613); Liao and Welsch (2002:5); Liao and Welsch (2005:354) and Guerrero et al. (2009:8). Social capital was measured on a five-point Likert scale (1= Strongly disagree to 5=Strongly agree). Table 16 shows the measures of social capital used in this study as adopted from validated questionnaires used by various sources.
Table 16: Measures of social capital and the sources

<table>
<thead>
<tr>
<th>Measures</th>
<th>Source(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of family and community entrepreneurs:</td>
<td>Malebana (2012:401); Liñán and Santos (2007:448); Klyver and Schøtt (2008:8); Liao and Welsch (2002:5); Liao and Welsch (2005:354)</td>
</tr>
<tr>
<td>- I personally know someone involved in entrepreneurship in my family</td>
<td></td>
</tr>
<tr>
<td>- I have a friend who is involved in entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>- My community have entrepreneurs</td>
<td></td>
</tr>
<tr>
<td>Approval of entrepreneurship by close family, friends or colleagues:</td>
<td>Malebana (2012:401); Ajzen (2005:124); Liñán and Santos (2007:448); Kolvereid and Isaksen (2006:876); Liñán and Chen (2009:612); Ramayah and Harun (2005:15)</td>
</tr>
<tr>
<td>- My family approves of entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>- My friend circle approves and support entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>- My schoolmates support entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>Valuation of the entrepreneurial career in the community:</td>
<td>Malebana (2012:401); Liñán and Santos (2007:448); Liñán et al. (2007:9); Liñán (2008:270); Guerrero et al. (2009:8)</td>
</tr>
<tr>
<td>- The culture in my community values entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>Reliance on family, friends, community or other entrepreneurs for assistance in starting a business:</td>
<td>Malebana (2012:401); Kickul et al. (2007:175); Gird and Bagaim (2008:715)</td>
</tr>
<tr>
<td>- I can put reliance on my family that they will support my decision to start a business</td>
<td></td>
</tr>
</tbody>
</table>
- I have other entrepreneurs who can aid in my decision to start a business

Source: Liñán and Santos (2008:448)

### 5.6.5 Entrepreneurship Education

Questions in Section G, as measures of social capital were adopted from Opoku-Antwi, Amofah, Koffuor and Yakubu (2012:213) and included a curriculum promoting entrepreneurship. Entrepreneurship education was measured on a five-point Likert scale (1= Strongly disagree to 5=Strongly agree). Table 17 shows the measures of social capital used in this study as adopted from validated questionnaires used by Opoku-Antwi, Amofah, Koffuor and Yakubu (2012:213).

<table>
<thead>
<tr>
<th>Measures</th>
<th>Source(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My subjects promote entrepreneurship</td>
<td>Opoku-Antwi, Amofah, Koffuor and Yakubu (2012:213)</td>
</tr>
<tr>
<td>Learning entrepreneurship has prompted me to wanting to be an entrepreneur</td>
<td>Opoku-Antwi, Amofah, Koffuor and Yakubu (2012:213)</td>
</tr>
<tr>
<td>My aspiration to be an entrepreneur is attributed to entrepreneurship</td>
<td>Opoku-Antwi, Amofah, Koffuor and Yakubu (2012:213)</td>
</tr>
<tr>
<td>I have received throughout my schooling years</td>
<td>Opoku-Antwi, Amofah, Koffuor and Yakubu (2012:213)</td>
</tr>
</tbody>
</table>

5.6.6 Designing the Research Instrument

Consulting extant literature assisted the current study to develop sound and responsive questions to the phenomenon underpinning the study. According to Neuman (2006: 96, Choudhary, 2017:115), a literature review satisfies the requirement to:

- Ascertain in-depth comprehension of extant knowledge.
- Recite previous research studies systematically and logically and synergise them with the current research study.
- Recite and synergise extant knowledge in the field.
- Investigate knowledge gaps in the extant literature and recommend strategies to fill the gaps.

The current research study upheld the importance of demonstrating in-depth comprehension of extant knowledge in the field of entrepreneurship and eloquently elucidated knowledge gaps. The study concluded with making recommendations to fill the identified knowledge gaps. Literature review was examined and presented in Chapter 2 to 7 of this research project.

5.6.6.1 Arrangement of Questions

The constructs of the current study and therefore of research instrument have been discussed. A great deal of care has been taken to ensure that sections of the research instrument are presented in a logical and harmonious manner so as to assist respondents to comprehend questions with ease. Zikmund, (2011) cited in Choudhary, 2017:115) proposed that introductory questions must stimulate fascination, be concise and unambiguous. The research instrument employed in this study adopted a general to specific design to arrange questions of the research instrument (Choudhary, 2017:115).
5.7 Primary Data Collection

Whilst data can be collected from the population frame, often times than not, population frame is humongous, making it costly and time consuming to collect primary data to the entire frame. The current research study utilised a sampling approach to collect primary data. A survey was conducted amongst the unity of analysis of the current study, using a questionnaire to investigate the primary construct of the study and the relationship of variables of the study. The use of telephonic, one on one and postal survey methods to disperse the research instrument was not considered the best choice because these methods impose exorbitant costs and are time consuming (Choudhary, 2017:118). A self-administered questionnaire method was adopted to collect the data from matric commerce students in 11 districts of KwaZulu-Natal Province.

The researcher followed a series of activities, as postulated by Creswell (2007: 23), and presented in phases indicated as in figure 8 below.
Phase 1: After selecting the research site and obtaining permission to collect data from the undergraduate students, the researcher embarked on data collection. A questionnaire was used to collect data. The researcher was given a chance to talk to the students during the first 10 minutes of their lessons to explain the objectives of the exercise as well as explain the ethical issues around the study. After that, the educators assisted in distributing the questionnaires to willing students. The learners were asked to hand in the questionnaires to their lecturers after completing them during their own time as long as it was to be done by the end of the school day of the following day.
Phase 2: Involved collection of the returned questionnaires from the educators for sorting and data capturing. Data capturing was done using SPSS version 25.

5.7.1 Data Collection Procedure

The primary method for data collection was face to face. This is the primary method because it is the one which guarantees the maximum response as the researcher. Additionally, literature presents several advantages which comes with administering the questionnaire face to face. For example, through prompting by the researcher, the research participants can fill in all the questions including the ones they are disinclined to answer, which they would have passed if not prompted to do so. As noted in the data collection procedure, the researcher explained the research to the respondents and made sure that they understood the research and signed the consent form before administering the questionnaire.

The researcher sought permission from the provincial education office to conduct this research in the selected schools. The researcher sought permission from the principals of the respective schools for distribution of questionnaires. Once permission was given, the researcher made some appointments on when to come and administer the questionnaire. This was done to ensure that the school authorities are aware of the data collection days so that there is minimal disruption to the classes. Additionally, setting appointments was also necessary as the researcher, to some extent, also relied on some physical and logistical assistance from the school authorities such as introducing the researcher, outlining the research and what it entails, distributing consent forms and once that is done, distributing the questionnaires among the learners and collecting them once that is done. Before the research participants started filling the questionnaire, the researcher went through the questionnaire with them clarifying each question on the questionnaire so that in the end everyone had the same understanding of what the questions entailed.
5.7.2 Data Processing and Presentation

Technically speaking, processing implies editing, coding, classification and tabulation of collected data so that they are amenable to analysis. Once the questionnaires were collected from the students, these were secured by the researcher and checked to ensure that all the necessary parts were answered, and all the questionnaires were collected. Once the sample size target was reached, the researcher then coded the questionnaires. This was done through transferring the responses to a spreadsheet as the first part through which the data was analysed with IBM SPSS, a statistical package.

5.7.3 Pros and Cons of Administering the Questionnaire

The primary objective informing the choice of personally administering the questionnaire to respondents was the hanker to ensure that enough, reliable, timely and honest responses are achieved. While the researcher endeavoured to simplify and shorten the questionnaire as much as possible, to achieve convenience, understandability, duly completion of questionnaires, it was impossible to shorten the questionnaire beyond the eventual configuration of the questionnaire. The researcher compensated for any unavoidable ambiguities by personally availing himself during the survey sessions to elucidate any possible uncertainties. Furthermore, the presence of the researcher during survey sessions enabled higher response rate. The researcher distributed the survey using group distribution approach. This approach was preferred because of its convenience and relatively low costs involved (Choudhary, 2017:119).

Survey techniques were not without flaws as two main problems (Questionnaire fatigue and non-response bias) associated with using questionnaire in a survey emerged (Choudhary, 2017:119). Both the problems were considered while selecting the group administered survey as questionnaire fatigue was tamed by explaining the importance of the research and relevance of the outcome of the research. Dealing with non-response
bias, an incentive of future career guidance advice was offered on full completion of the survey.

5.7.4 Pretesting

According to Cooper and Schindler (2011: 89), a pretesting, also referred to as piloting, is conducted to detect weaknesses in the design of a data collection instrument. The questionnaires used in the study included questions from previous studies done by Malebana (2012) and Opoku-Antwi et al (2012) and was modified to cater for matric learners. Pilot testing was undertaken on the 16 September 2019 to 10 October 2019. Pilot testing was undertaken at KwaPata Secondary School, where 7 students were randomly selected to participate in pilot testing. All 7 participants returned the questionnaire. Data obtained from the pilot testing revealed that respondents understood the questions and questions were free of ambiguity. Data gathered covered the issues intended by the study. The data collected from the pilot testing measured the extent to which matric commerce students perceive entrepreneurship as a career, factors underlying entrepreneurial intention and influence of entrepreneurial social capital and education on entrepreneurial intention.

The researcher was content of the sufficiency of data collected vis-à-vis in achieving the study objectives. Moreover, the research instrument produced excellent results which exceeded the researcher’s expectations. The piloting the research instrument brought about certainty that the questionnaire was carefully thought out, adequate and logically arranged (free of ambiguity).

Piloting the research instrument reaffirmed attainment of sought validity and reliability. On the strength of the results from the pilot testing, the researcher was of the belief that the questionnaire was sufficient to successfully collect the desired information. The pilot testing assisted the researcher to establish a flow in the way questions were to be asked
and it was useful in estimating the time and the costs involved in administering the data-collecting tool to the prospective participants.

5.7.5 Population/Target Population

According to Eldredge, Weagel and Kroth (2014:1), “population” refers to a set of objects on which the researcher is focused, and about which the researcher wants to determine characteristics. Wilson and MacLean (2011:161) define a population as the entire group of objects the researcher intends to scientifically understand. The population for this study was matric learners in commercial subjects at 11 (eleven) districts of KwaZulu-Natal Province, South Africa, which are predominantly rural. Table 18 illustrates the population per district and ward.

Table 18: Population per district and ward

<table>
<thead>
<tr>
<th>District</th>
<th>Total Schools</th>
<th>Total commerce learners per district (Average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amajuba</td>
<td>24</td>
<td>384</td>
</tr>
<tr>
<td>Ethekwini</td>
<td>67</td>
<td>1 072</td>
</tr>
<tr>
<td>Ilembe</td>
<td>88</td>
<td>1 408</td>
</tr>
<tr>
<td>Ugu</td>
<td>97</td>
<td>1 552</td>
</tr>
<tr>
<td>Umkhanyakude</td>
<td>126</td>
<td>2 016</td>
</tr>
<tr>
<td>Uthukela</td>
<td>81</td>
<td>1 296</td>
</tr>
<tr>
<td>Uthungulu</td>
<td>134</td>
<td>2 144</td>
</tr>
<tr>
<td>Umzinyathi</td>
<td>84</td>
<td>1 344</td>
</tr>
<tr>
<td>Sisonke</td>
<td>68</td>
<td>1 088</td>
</tr>
<tr>
<td>Umgungundlovu</td>
<td>91</td>
<td>1 456</td>
</tr>
<tr>
<td>Zululand</td>
<td>142</td>
<td>2 272</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1 002</strong></td>
<td><strong>16 032</strong></td>
</tr>
</tbody>
</table>

Source: Researcher
5.7.5.1 Determining the Sample Frame

According to Mesa, Chica, Duquia and Bastos (2016:327), a sample frame refers to a total list or register of each element in the population from which the sample will be drawn.

The sample frame for this study included a list of all the matric learners who were studying commercial subjects in all the 11 (eleven) districts and ten wards predominantly rural in KwaZulu-Natal Province. Table 19 below illustrates the estimated sample size per district for the year.

Table 19: Profile of sample and respondents

<table>
<thead>
<tr>
<th>District</th>
<th>Sample size (learners)</th>
<th>Actual number surveyed</th>
<th>Response rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amajuba</td>
<td>42</td>
<td>38</td>
<td>90.5%</td>
</tr>
<tr>
<td>Ethekwini</td>
<td>56</td>
<td>45</td>
<td>80%</td>
</tr>
<tr>
<td>Ilembe</td>
<td>56</td>
<td>43</td>
<td>77%</td>
</tr>
<tr>
<td>Ugu</td>
<td>56</td>
<td>39</td>
<td>70%</td>
</tr>
<tr>
<td>Umkhanyakude</td>
<td>56</td>
<td>33</td>
<td>58.9%</td>
</tr>
<tr>
<td>Uthukela</td>
<td>56</td>
<td>47</td>
<td>83.93%</td>
</tr>
<tr>
<td>Uthungulu</td>
<td>56</td>
<td>56</td>
<td>100%</td>
</tr>
<tr>
<td>Umzinyathi</td>
<td>56</td>
<td>47</td>
<td>83.93%</td>
</tr>
<tr>
<td>Sisonke</td>
<td>56</td>
<td>36</td>
<td>64.29%</td>
</tr>
<tr>
<td>Umgungundlovu</td>
<td>56</td>
<td>34</td>
<td>60.7%</td>
</tr>
<tr>
<td>Zululand</td>
<td>56</td>
<td>15</td>
<td>26.79%</td>
</tr>
<tr>
<td>Total</td>
<td>602</td>
<td>433</td>
<td>72%</td>
</tr>
</tbody>
</table>

Source: Researcher
5.7.5.2 Sampling Method

According to Kandace (2015:1) sampling refers to a process of selecting a sufficient portion of the population for a research study which will represent the total population. Palamida (2016:113) states that it is not feasible to survey the entire population due to time constraints, scarcity of resources and accessibility of the entire population.

According to Gumede (2014:120-121), the researcher needs to decide between choosing probability or non-probability approach to be used in sampling and the method to be used to select sample units. Probability sampling is feasible when every element of the population is known and is given a non-zero probability of being selected (Gamede, 2013:136). On the other hand, in non-probability sampling the researcher has a discretion to select sampling units. This study used non-probability, convenience sampling method. Convenience sampling is a non-probability technique which allows the researcher to select population elements based on ease and convenience (Nishishiba, Jones & Kraner, and 2014:344). This sampling method was chosen because by the time the actual research took place, the researcher already had a prior knowledge of the sampling elements per school and this sampling method made it easier and more convenient for him to choose the elements. Secondly, matric learners fall into a category of youth which was the focus of the study. Lastly, it was more convenient to reach them and acquire high response.

In this study, simple random sampling technique was used in the study. Eligibility for sampling was that the participant should be a matric student. Burns & Grove, (2005) in Mothwa (2011:55), assert that a study may have inclusion or exclusion criteria (or both). This means that the participant should have those characteristics that enable him/her to take part in the study. The sample was thus selected on the basis that the research participant was still a matric student at the selected school. Each participating school was given a quarter so that when the quarters were added up, they would tally up to the desired sample size.
Stratified sampling was thus used to distribute questionnaires to the learners. Stratified sampling was done to ensure that the respondents that would make up the study were varied, drawn from different classes, made up of different age groups and most importantly, making sure that there was parity as far as gender was concerned.

The sample size was determined by the number of matric students who agreed to take part in the study and who managed to complete filling and returned their questionnaires. Polit & Beck, (2005: 509) describe a sample size as the number of study participants who meet the eligibility criteria in a sample.

The sampling procedure comprised of three main stages.

5.7.6 Statistical Power of Sample Size

Sample size is of paramount importance for a research study (Choudhary. 2017:120). Inadequate sample size may result in an erroneous statistical inferences emanating from inadequate fortitude of the study (Choudhary. 2017:120). The necessary sample size
depends on the type of statistical techniques required for the analysis and has a bearing on the power of the research (Choudhary. 2017:119). The adequacy of sample frame depends on the statistical models required by each study in order to achieve power of the research (Choudhary. 2017:119). A sample frame of 602 students was considered justifiable to achieve adequate power of the study. Employing smaller samples include more convergence failures, improper solutions, and lowered accuracy of parameter estimates and, in particular, standard errors (Choudhary. 2017:121). It is widely accepted that the larger the sample the better it is for analysis Choudhary. 2017:121. In this study a significant sample size of 602 was calculated with the assistance of a statistician.

5.7.7 Outlining the Adopted Process of Data Collection

After piloting the questionnaire, students were approached through their school principal and class teachers to volunteer for a research project. The questionnaire was administered in a classroom and was left with participants to complete on their free time and in the presence of legal guardian / parent for those under the age of 18 years.

The sample students were approached by the researcher by means of frequenting their respective classrooms and the researcher preamble the survey with welcoming all respondents. A tripartite documentation was handed out to each respondent. Document number one presented letter of information which explained in detail the intention, study justification and timelines of the study. Document number two consisted of consent from for respondents and legal guardian / parent in the case of students who are below the age of 18 years. Document number further provided confidentiality checks and balances put in place by the researcher including explanatory remarks of the ultimate use of data and reaffirming the voluntary nature of participating in the survey. The researcher endeavoured to crystalise the absence of any form of remuneration from the word go. Document number three represented the survey questions. Students completed questionnaire in their spare time. Completed questionnaire was collected after 2 days. Finally, the researcher expressed his gratitude to respondents and afforded them an
opportunity to ask any questions pertaining to the current survey. The data was collected over a period of 3 months.

5.8 MULTIVARIATE ANALYSIS

5.8.1 Data analysis

Data analysis is processing of raw data to a point where it is intelligible and capable of answering the set research questions. According to Maree (2015:332), the term analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data-groups. Thus, “in the process of analysis, relationships or differences supporting or conflicting with original or new hypotheses should be subjected to statistical tests of significance to determine with what validity data can be said to indicate any conclusions”.

For this research, once the data collection was completed the first step was to collate the data into a spreadsheet. This is important because the data needs to be in a form where the data analysis software can read the data. For optimum compatibility, the data was saved into a Microsoft Excel spreadsheet prior to the analysis. Once this was done, the dataset, in Microsoft Excel, was exported to IBM SPSS where it was analysed. The specific analysis that was done to the data and what it sought to achieve is described below.

Primary data was collected by means of questionnaires. The data was uploaded using the Statistical Package for Social Sciences (SPSS) to ensure findings are accurate and valid. For questions where the 5-point Likert scale was used all answers were given a numerical code and entered using the code.
Babbie (2013:285) states that data must be organised, and consideration given to what is relevant and how the information can present data on questions and outcomes.

Secondary data was collected from all existing documents and information and analysed. Documents included but were not limited to statistical information, previous studies, academic articles, project briefs and updates, etc.

Descriptive statistics was used to present data and included frequencies, percentages and correlations. The data was presented in graphical format including bar graphs, histograms and pie charts.

5.8.2 Statistical Tests Undertaken

When presented with a dataset, there are several statistical tests that can be done to ensure that the collected data can achieve the set research objectives. For this study the following tests were done.

The first to be run was that of descriptive statistics. This looks at the Minimum, Maximum and Mean ranges of the data as well as the Skewness and Standard Deviation. These tests collectively serve to confirm the reliability of the collected data and ensuring that there are no errors or extreme values which can skew the results.

The second test was that of frequencies. This test determines the frequency with which a certain response is picked with the total number expressed as a percentage of the total number of respondents. The results to these tests were presented graphically to show how many respondents picked a specific answer. This test showed for example, the
number of learners who indicated that they needed to become entrepreneurs because they emulated some community members who were entrepreneurs.

The third test was that of chi-squares. These are tests of association. They serve to determine if there is a link between two variables. The level of significance of the association is expressed as 'p value'. For example, the chi-square tests determined if there was a correlation between the gender of the respondents and the inclination to be an entrepreneur.

The fourth test conducted was the Cronbach’s Alpha test. This test was used to determine the reliability of the studies. This was done by echoing the internal consistencies of the results. The test work on the assumption that during the course of responding to a questionnaire, the answers need to be ‘consistent’ to show that they are true and not random responses. It was this consistency that was measured. The Cronbach’s Alpha. A .7 reliability coefficient was accepted as minimum to ensure the reliability of the data.

5.9 DELIMITATIONS / SCOPE

The study sought to investigate entrepreneurial intention of matric learners who planned to study commercial subjects in 2018 in KwaZulu-Natal Province of South Africa, focusing on five schools which are rural and 100% black population, focusing on how personality traits, entrepreneurship education and social capital are associated with entrepreneurial intention. Malebana (2012:5) argues that exposure to entrepreneurship education enhances confidence and increases probability to succeed in business. Stam, Arzlanian and Elfring (2013:1) believe that social capital enables the entrepreneur to identify new opportunities. Nimalathasan and Achchuthan (2013:110) posit that personality traits such as internal locus of control, risk taking, and creativity are associated with entrepreneurial intention. A combination of these factors on entrepreneurial intention have not been studied.
5.10 VALIDITY AND RELIABILITY/ TRUSTWORTHINESS

5.10.1 Validity

Gamede (2013:127) defines validity as "the extent to which the research instrument successfully measures what it is intended to measure. Palamida (2016:118) argues that the implementation of reliability tests is important in understanding whether the interpretation of the instrument can be consistent across diverse phenomena. Validity is divided into external and internal validity. Jasti and Kodali (2014:369) posits that validity is measured in terms of face validity, content validity, criterion validity and construct validity. Face validity seeks to ensure the co-operation of the respondents. Malebana (2012:414) argues that the research instrument ought to take cognisance of the needs of the participants. The research instrument was designed in such a way that it was simple to understand and avoided ambiguity.

Secondly, content validity measures the extent to which a measuring instrument is a representative sample of the content area being measured (Pandey & Chawla, 2016:341). The questions included in the questionnaire were formulated based on the literature reviewed and included those questions that were validated by other entrepreneurial intention studies. Thirdly, criterion validity deals with the measuring instrument and closely matches the data collected using the measuring instrument that is known to be valid. Lastly, construct validity refers to the extent to which a research instrument is closely linked with the known theory in the area of study and with other related concepts (Bobe and Koben, 2015:329). The consideration of construct validity assisted the data collection instrument to ensure that it measured the intended constructs, thereby eliminating irrelevant constructs.
5.10.2 Reliability

According to Mery, Newby and Peng (2011:108) reliability refers to the consistency of a measure, score or rating. Palamida (2016:118) argues that findings are reliable if the world itself is uniform. This necessitates the implementation of reliability tests to ensure that the research instrument is interpreted uniformly across different situations. Nagesar (2013:88) state that reliability assumes the following forms:

- **Internal reliability** – measures the extent to which all items within a single instrument yield similar result. According to Malebana (2012:416) internal reliability of items in a questionnaire is usually calculated by means of Cronbach’s coefficient alpha for reliability.
- **Interpreter reliability** – measures the extent of standardisation of the instrument, meaning the extent to which different persons evaluate the statement and come to the same conclusion.
- **Equivalent forms reliability** – refers to the extent to which two or more diverse versions of the identical instrument yield similar conclusions.
- **Test-retest reliability** – refers to the extent to which the instrument produces same results on different occasions. The instrument was tested at pilot stage and retested on the actual study to make sure that the instrument is reliable.

5.11 ANONYMITY AND CONFIDENTIALITY

The study protected the identity of all respondents. This was achieved by making sure that no names of the participants were revealed when the analysis of the results was done. All data will be stored for 5 years before disposal. Paper records will be shredded after 5 years and recycled, avoiding any possibility of compromising paper records data confidentiality and anonymity. Computer records will be permanently extinguished by means of file deletion software after expiration of 5-year period, post study completion. For files stored on external data storage devices, such devices will be physically destroyed. The researcher is committed to anonymity and confidentiality of data,
therefore a register of all records destroyed will be kept (description of the file, date of disposal, and method of disposal).

5.12 ETHICAL CONSIDERATIONS

According to Saunders, Lewis and Thornhill (2012:231-232), the ethical non-negotiable principles that a researcher must adhere to are:

- Avoid impairment of respondents. The researcher put in place controls to avoid any physical and mental harm of participants.
- Uphold established quality, ethical legal and governance measures. Before the undertaking of the survey, permission both from the KwaZulu-Natal Head of Department of Education and schools’ headmasters was sourced by the researcher.
- Empowerment of participants with survey information. The researcher provided all participants with the necessary information relating to study rationale, the end-goal of the study and the envisaged contribution of the study to the body of literature in the field of entrepreneurship education.
- Voluntary consent of participants. The researcher was extremely careful to make sure that participation to the study was free of intimidation, cunning persuading tactics and volition depraving tactics. The researcher’s approach entailed collecting data strictly from participants who have provided written consent and that of their legal guardian / parents (where a participant was below the age of 18 years)
- Uphold data anonymity and confidentiality. To ensure that data remained anonymous and confidential, the researcher put in place control measures such as password protection of electronic data and storing of physical data in a lockable facility stationed in the researcher’s office for a period of five years, wherein, after 5 year retention period has lapsed, data will be disposed of in accordance with the ethical guidelines.
- Uphold objectivity and independence. The researcher ensured that he eliminated all possible personal bias, strictly reporting information that was collected exclusively form respondents without any modicum of alteration and omission.

The study ensured that all these ethical principles including those that have been prescribed by Durban University of Technology are adhered to.

5.13 CONCLUSION

This chapter gave a detailed account of the methodology used to collect data and to process data. Three broad areas were covered by the chapter. The first area includes some research design, research paradigm and research methodology decisions that were taken. The second broad area includes the outline of the research population, sampling decisions, an overview of the research instrument used to collect data and the processes that were used in the actual data collection process. Lastly, the chapter covered a series of checks and balances that were put in place to ensure that the data was collected ethically as well as ensuring that that the collected data was valid and reliable. The next chapter presents the results and analysis of results.
CHAPTER 6: ANALYSIS AND RESULTS

6.1 INTRODUCTION

This chapter provides results showing factors underlying entrepreneurial intention among young South Africans, particularly matric commerce students in rural areas of KwaZulu-Natal, South Africa. The analysis was conducted with the use of Stata statistical software version 16.1 and data analysed at 95% Confidence Interval, and 5% significance for the models. The chapter provides descriptive statistics in the form of frequency tables and graphs, as well as mean scores and standard deviations. This is followed by reliability tests to confirm the validity of the data and by normal distribution tests to check normality assumptions for the model. This is followed by paired t-tests to check if there are relationships between entrepreneurship intention and its factors. To build the model in question, a Structural Equation Model was run which produces a pathway diagram and a regression table, which is followed by the model fit statistics to confirm the validity of the model.
<table>
<thead>
<tr>
<th>Table 20: Structure of Chapter 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Analysis of Results</td>
</tr>
<tr>
<td>• Introduction</td>
</tr>
<tr>
<td>• Demographic Characteristics</td>
</tr>
<tr>
<td>• Factors Underlying Entrepreneurial Intention</td>
</tr>
<tr>
<td>• Factors Underlying Entrepreneurial Intention: Constructs</td>
</tr>
<tr>
<td>• Reliability</td>
</tr>
<tr>
<td>• Hypothesis Testing</td>
</tr>
<tr>
<td>• Structural Equation Model</td>
</tr>
<tr>
<td>• SEM Goodness of Fit</td>
</tr>
<tr>
<td>• Conclusion</td>
</tr>
</tbody>
</table>
6.2 DEMOGRAPHIC CHARACTERISTICS

Figure 9 indicates that Umkhanyakude district had the highest number of respondents (n=56, 12.9%), followed by Umgungundlovu (n=47, 10.9%), Umzinyathi (n=47, 10.9%), and with Zululand having the least respondents (n=15, 3.4%). This sample size is large enough to produce results that will be generalisable to KwaZulu-Natal, as the analysis is run at 95% confidence interval and 5% margin of error (Saunder et al, 2012).

![Sample distribution by District](image)

Figure 9: Age of Respondents

The total sample for this study was N=433 and distributed as follows in terms of age. Four out of ten (39.5%, n=171) of the respondents were aged 18 years, a quarter were aged 19 years (n=111), 17% (n=74) were aged 17 years, and very few (1%, n=5) were aged 20 years (figure 10). There were 72 respondents who did not disclose their ages.
Figure 10: Age of Respondents

Figure 11 indicates that 53% of the sample were females while 45% were male and 2% did not provide information.

Figure 11: Gender of respondents
6.3.1 Factors Underlying Entrepreneurial Intention

6.3.2 Entrepreneurship Knowledge

Figure 12 indicates that seven out of ten (71.6%) of respondents knew or were familiar with another person who was an entrepreneur, fewer did not (28.4%). Forty-seven percent of them had family members who were running a business, 53% did not. Many of them (64.9%) had not tried to start a business before, while 35.1% had tried to do so. Many of them did not have friends running a business (68.3%), fewer did (31.7%). Lastly, eight out of ten (85.1%) were currently not running their business, compared to only 14% who had business. In a nutshell, the majority of the respondents were familiar with another person who was running a business, were not likely to have a family member or friend running a business, and were not running a business themselves (Table 21)

![Entrepreneurship Knowledge](image)

Figure 12: Entrepreneurship knowledge
The mean scores indicate the positives, that 72% knew a family member who was running a business, 32% knew of a friend who was running a business, 47% had family members who were running businesses and 15% were currently running a business.

Table 21: Entrepreneurship Knowledge

<table>
<thead>
<tr>
<th>Entrepreneurship Knowledge</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>[95% Conf.]</th>
<th>Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am currently running my business</td>
<td>424</td>
<td>0.15</td>
<td>0.017</td>
<td>0.115</td>
<td>0.183</td>
</tr>
<tr>
<td>I have tried to start a business before</td>
<td>422</td>
<td>0.35</td>
<td>0.023</td>
<td>0.305</td>
<td>0.396</td>
</tr>
<tr>
<td>I have a family member who are running a business</td>
<td>419</td>
<td>0.47</td>
<td>0.024</td>
<td>0.422</td>
<td>0.518</td>
</tr>
<tr>
<td>I have friends running a business</td>
<td>413</td>
<td>0.32</td>
<td>0.023</td>
<td>0.272</td>
<td>0.362</td>
</tr>
<tr>
<td>I know another person in who is an entrepreneur</td>
<td>416</td>
<td>0.72</td>
<td>0.022</td>
<td>0.673</td>
<td>0.760</td>
</tr>
</tbody>
</table>

6.3.2 Entrepreneurial Intention

At least three quarters of the respondents felt that the curriculum had contributed positively towards their interest to start a business (78.5%), where 48% strongly agreed and 30.5% agreed. Fewer were neutral (11.8%) and 10% generally disagreed. They had a strong intention of starting a business in the future (76.9%), with 49.25% who strongly agreed and 27.8% who agreed. A tenth (12.5%) were neutral while a tenth (11%) disagreed. They felt that they had very serious thoughts of starting a business in the future (75.1%), where 48.6% strongly agreed and 26.5% agreed. A tenth was neutral (13.5%) and another tenth (11.4%) disagreed. Many felt determined to create a business venture in the future (75.1%) with 50.7% who strongly agreed and 24.1% who disagreed. Less than 20% were neutral (14.1%) or disagreed (11%).

They also felt that they did not have doubt about ever starting a business in the future (75%), with 48.8% who were neutral and 26.2% who agreed. Fewer were uncertain (15.3%) or disagreed (10%). Seven out of ten (71.8%) felt they would make every effort to start and run their own business, fewer were neutral (14.1%) or disagreed (16%). Seventy percent were ready to start a business after their studies. They believed that their professional goal was to be an entrepreneur (70.1%); less were either neutral (14.1%) or
disagreed (15.8%). Lastly, the least rated aspect was that their professional goal is to be an entrepreneur (64.5%), nearly a fifth (19%) disagreed and 16.4% were neutral.

Figure 13: Entrepreneurial Intention

Table 22 indicates that generally the respondents agreed to all the aspects of entrepreneurial intention, they have the intention to embark on entrepreneurship. Highest rated was that the curriculum has contributed positively towards their interest to start a business (Mean score=3.96; SD=0.98), followed by those who had a strong intention of starting a business in the future (M=3.91; SD=0.98). The least rated that their professional goal was to be an entrepreneur (M=3.7; SD=1.1) and that they were ready to start a business after their studies (M=3.7; SD=1.1).
Table 22: Entrepreneurial Intention

<table>
<thead>
<tr>
<th>Entrepreneurial Intention</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am ready to start a business after my studies</td>
<td>425</td>
<td>3.71</td>
<td>1.120</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>My professional goal is to be an entrepreneur</td>
<td>426</td>
<td>3.65</td>
<td>1.137</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I will make every effort to start and run my own business</td>
<td>425</td>
<td>3.86</td>
<td>1.044</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I am determined to create a business venture in the future</td>
<td>426</td>
<td>3.86</td>
<td>0.975</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I do not have doubt about ever starting a business in the future</td>
<td>424</td>
<td>3.88</td>
<td>0.972</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I have very serious thought of starting a business in the future</td>
<td>422</td>
<td>3.87</td>
<td>1.009</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I have a strong intention of starting a business in the future</td>
<td>425</td>
<td>3.91</td>
<td>0.981</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>The curriculum has contributed positively towards my interest to start a business</td>
<td>423</td>
<td>3.96</td>
<td>0.983</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

6.3.3 Attitudes Toward Becoming an Entrepreneur

Figure 14 indicates that two factors were highly rated, being an entrepreneur implies more advantages than disadvantages to them (80.15 agreed), with 48.8% who strongly agreed and 31.2% who agreed and less than 20% were neutral (11%) or disagreed (10%). They felt that if they had the opportunity and resources, they would like to start a business (80.3%), 43.1% strongly agreed and 37.2% agreed with less than 20% who were neutral (10.3%) or disagreed (9.4%). Another 80% of respondents felt that their subjects had contributed positively; 48% strongly agreed and 31.8% agreed, while a tenth (12.2%) were neutral and 8% disagreed. Seven out of ten of them felt that amongst various options, they would rather be an entrepreneur (73.1%), 15.3% were unsure about this and tenth (11%) disagreed. They believed that being an entrepreneur would give them great satisfaction (73.1%); 41.2% strongly agreed and 31% agreed, while 17.3% were unsure and 10% disagreed. Least rated was the perception that a career as an entrepreneur is totally attractive to them (71.4%); 43.2% strongly agreed, 28% agreed and 18% were unsure and 10% disagreed.
Figure 14: Attitudes towards becoming an entrepreneur

6.3.4 Self-Efficacy

Eighty percent of respondents rated each of the following aspects of self-efficacy highest. They believed that they would generate new ideas for a product or service, 51.9% strongly agreed and 29.5% agreed. They felt they would be able to identify the need for a new product or service, 53.8% strongly agreed and 25.8% agreed. They believed they would ably organise and maintain financial records of their business, 54.5% strongly agreed and 25.1% agreed and that they can manage financial assets of their business; 52.8% strongly agreed and 25.9% agreed. Three quarters (76.5%) felt that they could explain and write their business ideas, could design a product or service that will satisfy customer needs and wants (76.4%), could determine a competitive price for a new product or service (76.4%) and could identify potential sources of funding for investment in their business (76%).
Three quarters (75.2%) felt they would be able to estimate customer demand for a new product or service, 48.4% strongly agreed and 26.9% agreed. Seven out of ten respondents were positive on the following aspects of self-efficacy. They believed they would be able to develop and maintain favourable relationships with potential investors (49.8% strongly agreed, 23.7% agreed), and that they were able to estimate the amount of start-up funds and working capital necessary to start a business (44.8% strongly agreed and 28.7% agreed).

Seven out of ten respondents were positive on the following aspects of self-efficacy. They believed that they would be able to develop and maintain favourable relationships with potential investors (49.8% strongly agreed, 23.7% agreed), and that they would be able to estimate the amount of start-up funds and working capital necessary to start a business (44.8% strongly agreed and 28.7% agreed). They also believed that they would be able to get others to identify with and believe in their vision and plans for a new business (47.8% strongly agreed, 25.7% agreed) and that they would be able to contact and exchange information with others (48.4% strongly agreed, 24.9% agreed). Lastly, they would be able to develop relationships with key people who were connected to sources of capital (strongly agreed=46.1% vs 26.7% agreement). They were also able to design an effective marketing/advertising campaign for a new product or service (46.7% strong agreement vs 25.7% agreement).
Table 23 indicates that the respondents generally agreed to all aspects of entrepreneurial self-efficacy, mean scores were 4 (agreement), with highest rated the ability to generate new idea for a product or service (M=4.0). Second rated was identifying the need for a new product or service (M=3.98) and third organise and maintain financial records of a business (M=3.96). The three least rated were to design an effective marketing/advertising campaign for a new product or service (M=3.87), to contact and exchange information with others (M=3.87), and to develop and maintain favourable relationships with potential investors (M=3.85).
Table 23: Mean Scores-Self -efficacy

<table>
<thead>
<tr>
<th>I am confident in my ability to…..</th>
<th>Obs.</th>
<th>Mean</th>
<th>Std. dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>To generate new idea for a product or service</td>
<td>424</td>
<td>4.03</td>
<td>0.868</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To identify the need for a new product or service</td>
<td>422</td>
<td>3.98</td>
<td>0.855</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To organise and maintain financial records of my business</td>
<td>422</td>
<td>3.96</td>
<td>0.868</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To manage financial assets of my business</td>
<td>428</td>
<td>3.95</td>
<td>0.897</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To determine a competitive price for a new product or service</td>
<td>424</td>
<td>3.94</td>
<td>0.926</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To estimate customer demand for a new product or service</td>
<td>424</td>
<td>3.94</td>
<td>0.883</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To design a product or service that will satisfy customer needs and wants</td>
<td>424</td>
<td>3.93</td>
<td>0.890</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To explain and write my business idea</td>
<td>422</td>
<td>3.93</td>
<td>0.917</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To estimate the amount of start-up funds and working capital necessary to start a business</td>
<td>422</td>
<td>3.92</td>
<td>0.945</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To identify potential sources of funding for investment in my business</td>
<td>425</td>
<td>3.91</td>
<td>0.922</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To develop relationships with key people who are connected to sources of capital</td>
<td>423</td>
<td>3.88</td>
<td>0.946</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To get others to identify with and believe in my vision and plans for a new business</td>
<td>425</td>
<td>3.88</td>
<td>0.933</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To design an effective marketing/ advertising campaign for a new product or service</td>
<td>424</td>
<td>3.87</td>
<td>0.946</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To contact and exchange information with others</td>
<td>425</td>
<td>3.87</td>
<td>0.946</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To develop and maintain favourable relationships with potential investors.</td>
<td>426</td>
<td>3.85</td>
<td>0.934</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

6.3.5 Social Capital

Figure 16 indicates there were three factors of social capital that were rated highest by at least 80% of respondents. They felt that they can put reliance on their family that they will support their decision to start a business (58.1% strongly agreed, 24.1% agreed), they felt that they have other entrepreneurs who can aid in their decision to start a business (57% strongly agreed, 23.4% agreement) and they believed that the culture in their community values entrepreneurship (57% strongly agreed, 23.5% agreed).
Figure 16: Social capital

Figure 16 also indicates there were three factors of social capital that were rated highest by at least 80% of respondents. They felt that they can put reliance on their family that they will support their decision to start a business (58.1% strongly agreed, 24.1% agreed); they felt that they have other entrepreneurs who can aid in their decision to start a business (57% strongly agreed, 23.4% agreement); and they believed that the culture in their community values entrepreneurship (57% strongly agreed, 23.5% agreed).

Other results indicate that three quarters of respondents felt that their community have entrepreneurs (53% strongly agreed, 22.7% agreed); that their family approves to entrepreneurship (50.7% strongly agreed, 24.2% agreed); and that their circle of friends approve and support entrepreneurship (50% strongly agreed, 24.4% agreed). Lastly, the three least rated aspects of social capital were that their schoolmates support entrepreneurship (73.4%); they personally know someone involved in entrepreneurship in their family (64.7%); and that they have a friend who is involved in entrepreneurship (56.4%)-least rated.
Table 24: Social capital

<table>
<thead>
<tr>
<th>Social Capital</th>
<th>Obs</th>
<th>Mean</th>
<th>Std.dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can put reliance on my family that they will support my decision to start a business</td>
<td>420</td>
<td>4.00</td>
<td>0.801249</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I have other entrepreneurs who can help in my decision to start a business</td>
<td>423</td>
<td>4.00</td>
<td>0.802825</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>The culture in my community values entrepreneurship</td>
<td>421</td>
<td>3.98</td>
<td>0.79703</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>My friend circle approves and support entrepreneurship</td>
<td>422</td>
<td>3.88</td>
<td>0.913491</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>My family approves of entrepreneurship</td>
<td>426</td>
<td>3.87</td>
<td>0.937957</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>My schoolmates support entrepreneurship</td>
<td>422</td>
<td>3.85</td>
<td>0.891889</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>My community have entrepreneurs</td>
<td>419</td>
<td>3.85</td>
<td>0.946189</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I personally know someone involved in entrepreneurship in my family</td>
<td>425</td>
<td>3.68</td>
<td>1.08566</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I have a friend who is involved in entrepreneurship</td>
<td>422</td>
<td>3.43</td>
<td>1.164828</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Two highest rated aspect of social capital

- They can put reliance on their family that they will support their decision to start a business (M=4; SD=0.8),
- They have other entrepreneurs who can help in their decision to start a business (M=4; SD=0.8).

The two least rated aspects of social capital were:

- They personally know someone involved in entrepreneurship in their family (M=3.7),
- They have a friend who is involved in entrepreneurship (M=3.4).

6.3.6 Locus of Control

There were three most positively rated aspects of locus of control. Eight out of ten of students felt that when they get what they want, it is usually because they had worked hard for it (82.6%), 57.9% strongly agreed, 24.8% agreed. They felt their life is determined
by their own actions (80.3%), 55.2% strongly agreed and 25.2% agreed with very few who were negative. They also felt in control of their life (79.7%), 57.9% strongly agreed, 21.8% agreed with very few who were negative or unsure. Seven out of ten (79.7%) of them felt their success in life depends mostly on their ability; 48.6% strongly agreed and 29.7% agreed while a tenth disagreed or were unsure. On the other hand, half of the respondents felt that their success depends on whether they were lucky enough to be in the right place at the right time (53.7%); 41.2% strongly agreed and 12% agreed. A fifth disagreed to this aspect (20.9%) while a quarter (25.4%) were unsure. This other half also felt that what happens in their life was mostly determined by people in powerful positions (53.4%); a fifth disagreed (22.5%) while 24.1% were unsure (Figure 17).

Figure 17: Locus of control

Slightly more than half felt negative that when they get what they want, it is usually because of luck; 27.3% disagreed, 23.5% were unsure while 48.8% generally agreed that they would get something out of luck. A greater proportion did not feel that to a great
extent that their life is controlled by accidental happenings, 30.1% were unsure, 30% disagreed and 40% agreed (40%). They were also negative or unsure that it is not wise for them to plan too far ahead, because things turn out to be a matter of bad fortune, 36.2% disagreed, 23.8% unsure and 40% generally agreed to this. Lastly, four out of ten believed that success in business is mostly a matter of luck (39.9%), a third (34.45) disagreed and a quarter (25.6%) were unsure (Table 25).

Table 25: Locus of Control

<table>
<thead>
<tr>
<th>Locus of Control</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>E [My success in life depends mostly on my ability]</td>
<td>424</td>
<td>3.90</td>
<td>1.080</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>E [I feel that what happens in my life is mostly determined by people in powerful positions]</td>
<td>423</td>
<td>3.38</td>
<td>1.159</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>E [My success depends on whether I am lucky enough to be in the right place at the right time]</td>
<td>425</td>
<td>3.40</td>
<td>1.052</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>E [To a great extent my life is controlled by accidental happenings]</td>
<td>422</td>
<td>3.09</td>
<td>1.133</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>E [When I get what I want, it is usually because I am lucky]</td>
<td>422</td>
<td>3.21</td>
<td>1.177</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>E [My life is determined by my own actions]</td>
<td>417</td>
<td>3.92</td>
<td>0.955</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>E [When I get what I want, it is usually because I worked hard for it]</td>
<td>420</td>
<td>3.96</td>
<td>0.899</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>E [I feel in control of my life]</td>
<td>418</td>
<td>3.91</td>
<td>0.874</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>E [Success in business is mostly a matter of luck]</td>
<td>421</td>
<td>2.99</td>
<td>1.196</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>It is not wise for me to plan too far ahead, because things turn out to be a matter of bad fortune]</td>
<td>420</td>
<td>2.96</td>
<td>1.201</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

There were four equally rated aspects in this scale; they felt that when they get what they want, it is usually because they worked hard for it (M=3.9; SD=1.1), that their life was determined by their own actions (M=3.9; SD=1.0), that they felt in control of their lives (M=3.9) and that their success in life depended mostly on their actions (M=3.9). They seemed uncertain (M=3) about the rest of the aspects especially that to a great extent their life is controlled by accidental happenings, that success in business is mostly a matter of luck, and that it is not wise for them to plan too far ahead, because things turn out to be a matter of bad fortune. They weekly agreed to two aspects -that their success depends on whether they were lucky enough to be in the right place at the right time, or
that they felt that what happens in their life is mostly determined by people in powerful positions.

### 6.3.7 Innovativeness & Achievement

#### Need for achievement

More than 85% of respondents believed that the three aspects of need for achievement were equally important compared to innovativeness. They felt that they will try hard to perform better than their friends (46.7% strongly agreed, 40.6% agreed), they will try hard to improve on past work performance (46.8% strongly agreed, 40% agreed), and they will do very well in fairly difficult task relating to their study (52.6% strongly agreed, 33% agreed) (Figure 18)

![Innovativeness & Achievement](image)

Figure 18: Innovativeness & Achievement

# SD: Strongly Disagree, D: Disagree, N: Neither Agree nor Disagree, SA: Strongly Agree, A: agree
Innovativeness

In terms of innovativeness, at least 75% preferred work that requires original thinking (53.7% strongly agreed, 25% agreed); they often surprise people with new and different ideas (49.1% strongly agreed, 26.95 agreed). Seven out of ten (73%) of them felt they can obtain more satisfaction from mastering a skill than coming up with a new business (48.7% strongly agreed, 24.25 agreed); and people often ask them for help in creative activities (39.1% strongly agreed, 24.7% agreed) (Figure 18).

Table 26: Innovativeness & Achievement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Innovativeness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often surprise people with my new and different ideas</td>
<td>424</td>
<td>3.88</td>
<td>0.984</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>People often ask me for help in creative activities</td>
<td>424</td>
<td>3.72</td>
<td>1.043</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I prefer work that requires original thinking</td>
<td>425</td>
<td>3.94</td>
<td>0.875</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I obtain more satisfaction from mastering a skill than coming up with a new</td>
<td>425</td>
<td>3.85</td>
<td>0.941</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Need for achievement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will do very well in fairly difficult task relating to my study</td>
<td>424</td>
<td>4.12</td>
<td>0.807</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I will try hard to improve on past work performance</td>
<td>423</td>
<td>4.20</td>
<td>0.846</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I will try hard to perform better than my friends</td>
<td>424</td>
<td>4.21</td>
<td>0.844</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Descriptive statistics (Table 26) indicate that need for achievement was greatly appreciated by the respondents as a catalyst for intention to entrepreneurship, and rates as follows:

- They will try hard to perform better than their friends (M=4.2); try hard to improve on past work performance (M=4.2); and will do very well in fairly difficult task relating to their study (M=4.1).

The following aspects of innovativeness were rated important in intention to entrepreneurship, in descending order,

- Prefer work that requires original thinking (M=3.94); obtain more satisfaction from mastering a skill than coming up with a new business (M=3.85); often surprise
people with new and different ideas, and that people often ask them for help in creative activities (M=3.72).

6.3.8 Entrepreneurship Education

Figure 19 indicates that over 80% of respondents were positive that entrepreneurship aspects were important in intention to start a business. They rated high that their subjects promoted entrepreneurship (86%), where 46% strongly agreed and 40.8% agreed. They felt that learning entrepreneurship prompted them to wanting to be an entrepreneur (45% strongly agreed, 38.2% agreed) and that their aspiration to be an entrepreneur was attributed to entrepreneurship education they had received throughout their schooling years (47.9% strongly agreed, 34% agreed).

![Entrepreneurship Education](image)

Figure 19: Entrepreneurial education
Table 27: Entrepreneurial education

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>My subjects promote entrepreneurship</td>
<td>422</td>
<td>4.21</td>
<td>0.851</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Learning entrepreneurship has prompted me to wanting to be an entrepreneur</td>
<td>422</td>
<td>4.14</td>
<td>0.867</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>My aspiration to be an entrepreneur is attributed to entrepreneurship</td>
<td>426</td>
<td>4.08</td>
<td>0.869</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

The respondents rated the factors of knowledge of entrepreneurship (Table 27) equally important as follows:

- Their subjects promoted entrepreneurship (M=4.2), learning entrepreneurship prompted them to want to be an entrepreneur (M=4.1) and that their aspiration to be an entrepreneur was attributed to entrepreneurship education they had received throughout their schooling years (M=4.1).

6.4 FACTORS UNDERLYING ENTREPRENEURIAL INTENTION: CONSTRUCTS

In this section the different questions are computed into the different constructs by getting the average of the items in the question. The question on entrepreneurial education was a ‘Yes’ and ‘No’ question coded as 0 and 1, it was weighted to 5 to suit the Likert scale.
Figure 20: Intention to entrepreneurship and its constructs

Figure 20 indicates that entrepreneurship education had the lowest score, showing that there was low knowledge. The descriptive statistics show that it was only one factor that was positive, i.e., they knew another person that was an entrepreneur. The personal traits of need achievement had the highest mean score (agreement) (M=4.2), followed by self-efficacy (M=3.9), innovativeness (3.9) and locus control (M=3.5), all in agreement. Social capital (M=3.8) and attitude (M=4) had higher scores too, showing they were positive and that these factors were important in intention to entrepreneurship. The knowledge of entrepreneurship was high, followed by a relatively high entrepreneurship intention. Having computed these, the following section provides graphs showing normal distribution of the constructs.

6.4.1 Normal Distribution

Assumptions of models that follow assume the data is normally distributed, hence, it is important to check the extent of asymmetry (bell shape).
Attitudes and social capital data were not normally distributed but skewed to the right-towards agreement (Figure 21). Skewness measures the degree and direction of asymmetry.

Figure 21: Normal distribution (Attitudes and Social Capital)

Figure 22 below shows that only locus dimension or scale has normally distributed data, while innovativeness, needs achievement, self-efficacy, and innovativeness data is skewed to the right-towards agreement.
Both intention dimension and entrepreneurship dimension were skewed to the right-towards agreement (Figure 23). The above results indicate that all the constructs are skewed towards agreement, there was little disagreement on all aspects/factors that affect entrepreneurship intention.

Figure 22: Normal distribution (Innovativeness, Locus, Achievement and self-efficacy)
Figure 23: Normal distribution (Intention and Education)

6.5 RELIABILITY

The following section tests the reliability of the sub scales. Cronbach’s alpha reliability coefficient normally ranges between 0 and 1 (Gliem and Gliem, 2003).

Table 28: Reliability

<table>
<thead>
<tr>
<th>Item</th>
<th>item-test</th>
<th>item-rest</th>
<th>interItem</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention</td>
<td>427</td>
<td>+</td>
<td>0.8642</td>
<td>0.8089</td>
<td>0.35984</td>
<td>0.9034</td>
</tr>
<tr>
<td>Attitudes</td>
<td>428</td>
<td>+</td>
<td>0.8479</td>
<td>0.7873</td>
<td>0.364283</td>
<td>0.9053</td>
</tr>
<tr>
<td>Locus</td>
<td>427</td>
<td>+</td>
<td>0.5928</td>
<td>0.4911</td>
<td>0.430743</td>
<td>0.9271</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>427</td>
<td>+</td>
<td>0.8175</td>
<td>0.7517</td>
<td>0.376548</td>
<td>0.9084</td>
</tr>
<tr>
<td>Achievement</td>
<td>426</td>
<td>+</td>
<td>0.8244</td>
<td>0.7644</td>
<td>0.379831</td>
<td>0.9074</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>428</td>
<td>+</td>
<td>0.8232</td>
<td>0.7613</td>
<td>0.378623</td>
<td>0.9077</td>
</tr>
<tr>
<td>Social Capital</td>
<td>428</td>
<td>+</td>
<td>0.7991</td>
<td>0.7392</td>
<td>0.394544</td>
<td>0.91</td>
</tr>
<tr>
<td>Ent Education</td>
<td>429</td>
<td>+</td>
<td>0.8218</td>
<td>0.7595</td>
<td>0.3792</td>
<td>0.9078</td>
</tr>
<tr>
<td>Test</td>
<td>scale</td>
<td></td>
<td>0.382951</td>
<td>0.9203</td>
<td>Mean unstandardized items</td>
<td></td>
</tr>
</tbody>
</table>

Table 28 indicates that all the sub scales were within acceptable reliability ranges (~0.7). It is important to check reliability of the scales as they affect the Structural Equation Model. The closer Cronbach’s alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. George and Mallery (2003) provide the following rules of thumb: “_
> .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable”.

6.6 HYPOTHESIS TESTING

Which factors drive entrepreneurial intention among young South Africans, particularly matric commerce students in rural areas of KwaZulu-Natal, South Africa?

The dependent-sample or paired t-test compares the difference in the means from the two variables measured on the same set of subjects to a given number (usually 0), while considering the fact that the scores are not independent.

Table 29: Hypothesis 1: There is a relationship between entrepreneurial intention and attitude

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention (EI)</td>
<td>427</td>
<td>3.84</td>
<td>0.043</td>
<td>0.884</td>
<td>3.752 – 3.921</td>
</tr>
<tr>
<td>Attitude</td>
<td>427</td>
<td>3.95</td>
<td>0.042</td>
<td>0.878</td>
<td>3.867 – 4.034</td>
</tr>
<tr>
<td>diff</td>
<td>427</td>
<td>-0.11</td>
<td>0.024</td>
<td>0.490</td>
<td>-0.161 – -0.068</td>
</tr>
</tbody>
</table>

mean(diff) = mean (INTENTION - ATTITUDES) t = -4.81 Ho: mean(diff) = 0 Pr(|T| > |t|) = 0.0000

There is a difference between mean value for attitudes towards the behaviour and entrepreneurial intention (EI) (-0.11). The p-value is less than 0.05 (p < 0.05) indicating that there are statistically significant differences between attitude and EI. Hence the null hypothesis (Ho: mean(diff) = 0) is rejected, a conclusion can be made that there is a positive relationship between attitudes and entrepreneurial intention.

Table 30: Hypothesis 2: There is a relationship between entrepreneurial intention and locus

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention (EI)</td>
<td>426</td>
<td>3.84</td>
<td>0.043</td>
<td>0.885</td>
<td>3.752 – 3.920</td>
</tr>
<tr>
<td>Locus</td>
<td>426</td>
<td>3.48</td>
<td>0.035</td>
<td>0.716</td>
<td>3.409 – 3.545</td>
</tr>
<tr>
<td>diff</td>
<td>426</td>
<td>0.36</td>
<td>0.043</td>
<td>0.889</td>
<td>0.274 – 0.444</td>
</tr>
</tbody>
</table>

mean(diff) = mean (INTENTION - Locus) t = 8.3301 Ho: mean(diff) = 0 Pr(|T| > |t|) = 0.0000
There is a difference between mean value for locus and entrepreneurial intention (EI) (0.36). The p-value is less than 0.05 (p < 0.05) indicating that there are statistically significant differences between locus and EI. Hence the null hypothesis (Ho: mean(diff) = 0) is rejected, a conclusion can be made that there is a positive relationship between locus and entrepreneurial intention.

Table 31: Hypothesis 3: There is a relationship between entrepreneurial intention and innovativeness.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention (EI)</td>
<td>426</td>
<td>3.84</td>
<td>0.043</td>
<td>0.885</td>
<td>3.752 - 3.920</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>426</td>
<td>3.85</td>
<td>0.040</td>
<td>0.831</td>
<td>3.775 - 3.933</td>
</tr>
<tr>
<td>Diff</td>
<td>426</td>
<td>-0.02</td>
<td>0.036</td>
<td>0.749</td>
<td>-0.089 - 0.053</td>
</tr>
</tbody>
</table>

mean(diff) = mean (INTENTION - Innovativeness1)  \( t = -0.50 \)  Ho: mean(diff) = 0  \( Pr(|T| > |t|) = 0.6171 \)

There is a difference between mean value for locus and entrepreneurial intention (EI) (0.02). The p-value is greater than 0.05 (p > 0.05) indicating that there are no statistically significant differences between innovation and EI. Hence the null hypothesis (Ho: mean(diff) = 0) is NOT rejected, a conclusion can be made that there is no relationship between innovativeness and entrepreneurial intention.

Table 32: Hypothesis 4: There is a relationship between entrepreneurial intention and achievement.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention (EI)</td>
<td>425</td>
<td>3.84</td>
<td>0.043</td>
<td>0.886</td>
<td>3.752 - 3.921</td>
</tr>
<tr>
<td>Achievement</td>
<td>425</td>
<td>4.18</td>
<td>0.038</td>
<td>0.793</td>
<td>4.105 - 4.256</td>
</tr>
<tr>
<td>Diff</td>
<td>425</td>
<td>-0.34</td>
<td>0.036</td>
<td>0.745</td>
<td>-0.416 - 0.274</td>
</tr>
</tbody>
</table>

mean(diff) = mean (INTENTION - Achievement)  \( t = -9.535 \)  Ho: mean(diff) = 0  \( Pr(|T| > |t|) = 0.0000 \)

There is a difference between mean value for locus and entrepreneurial intention (EI) (-0.34). The p-value is greater than 0.05 (p > 0.05) indicating that there are statistically...
significant differences between needs achievements and EI. Hence the null hypothesis (Ho: mean(diff) = 0) is rejected, a conclusion can be made that there is a relationship between achievement and entrepreneurial intention.

Table 33: Hypothesis 5: There is a relationship between entrepreneurial intention and self-efficacy.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf.] Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention (EI)</td>
<td>426</td>
<td>3.84</td>
<td>0.043</td>
<td>0.885</td>
<td>3.752 - 3.920</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>426</td>
<td>3.92</td>
<td>0.039</td>
<td>0.806</td>
<td>3.846 - 4.000</td>
</tr>
<tr>
<td>Diff</td>
<td>426</td>
<td>-0.09</td>
<td>0.033</td>
<td>0.677</td>
<td>-0.151 - 0.022</td>
</tr>
</tbody>
</table>

mean(diff) = mean (INTENTION - Self efficacy)  
$t = -2.64$  
Ho: mean(diff) = 0  
Pr(|T| > |t|) = 0.0085

There is a difference between mean value for self-efficacy and entrepreneurial intention (EI) (-0.09). The p-value is greater than 0.05 ($p > 0.05$) indicating that there are statistically significant differences between self-efficacy and EI. Hence the null hypothesis (Ho: mean(diff) = 0) is rejected, a conclusion can be made that there is a relationship between self-efficacy and entrepreneurial intention.

Table 34: Hypothesis 6: There is a relationship between entrepreneurial intention and social capital.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf.] Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention (EI)</td>
<td>426</td>
<td>3.84</td>
<td>0.043</td>
<td>0.885</td>
<td>3.752 - 3.920</td>
</tr>
<tr>
<td>Social capital</td>
<td>426</td>
<td>3.84</td>
<td>0.035</td>
<td>0.716</td>
<td>3.769 - 3.905</td>
</tr>
<tr>
<td>Diff</td>
<td>426</td>
<td>-0.00</td>
<td>0.034</td>
<td>0.703</td>
<td>-0.068 - 0.066</td>
</tr>
</tbody>
</table>

mean(diff) = mean(INTENTION - SOCIALCAPITAL)  
$t = -0.031$  
Ho: mean(diff) = 0  
Pr(|T| > |t|) = 0.9750

There is a difference between mean value for social capital and entrepreneurial intention (EI) (-0.00). The p-value is greater than 0.05 ($p > 0.05$) indicating that there are no statistically significant differences between social capital and EI. Hence the null
hypothesis (Ho: mean(diff) = 0) is NOT rejected, a conclusion can be made that there is no relationship between social capital and entrepreneurial intention.

Table 35: Hypothesis 7: There is a relationship between entrepreneurial intention and entrepreneurship.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention</td>
<td>427</td>
<td>3.84</td>
<td>0.043</td>
<td>0.884</td>
<td>3.752 - 3.921</td>
</tr>
<tr>
<td>Entre education</td>
<td>427</td>
<td>4.15</td>
<td>0.039</td>
<td>0.802</td>
<td>4.074 - 4.227</td>
</tr>
<tr>
<td>Diff</td>
<td>427</td>
<td>-0.31</td>
<td>0.033</td>
<td>0.679</td>
<td>-0.378 - 0.249</td>
</tr>
</tbody>
</table>

mean(diff) = mean (INTENTION - ENTEDUCATION)  
\[ t = -9.548 \text{ Ho: mean(diff) = 0 Pr(|T| > |t|) = 0.0000} \]

There is a difference between mean value for entrepreneurship education and entrepreneurial intention (EI) (-0.00). The \( p \)-value is greater than 0.05 (\( p > 0.05 \)) indicating that there are statistically significant differences between entrepreneurship education and EI. Hence the null hypothesis (Ho: mean(diff) = 0) is rejected, a conclusion can be made that there is a relationship between education entrepreneurship and entrepreneurial intention.

Table 36: Hypothesis 8: There is a relationship between entrepreneurial intention and entrepreneurial knowledge.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention</td>
<td>427</td>
<td>3.84</td>
<td>0.043</td>
<td>0.884</td>
<td>3.752 - 3.921</td>
</tr>
<tr>
<td>Knowledge</td>
<td>427</td>
<td>2.02</td>
<td>0.067</td>
<td>1.386</td>
<td>1.888 - 2.152</td>
</tr>
<tr>
<td>Diff</td>
<td>427</td>
<td>1.82</td>
<td>0.068</td>
<td>1.396</td>
<td>1.684 - 1.949</td>
</tr>
</tbody>
</table>

mean(diff) = mean(INTENTION - KNOWLEDGE_2)  
\[ t = 26.87 \text{ Ho: mean(diff) = 0 Pr(|T| > |t|) = 0.0000} \]

There is a large difference between mean value for entrepreneurship knowledge and entrepreneurial intention (EI) (1.82). The \( p \)-value is greater than 0.05 (\( p < 0.05 \)) indicating that there are statistically significant differences between entrepreneurship knowledge and EI. Hence the null hypothesis (Ho: mean (diff) = 0) is rejected, a conclusion can be
made that there is a relationship between entrepreneurship knowledge and entrepreneurial intention.

6.7 STRUCTURAL EQUATION MODEL

Considering social capital and entrepreneurship education as key variables of entrepreneurial intention, which entrepreneurship model is best suited to adequately explain entrepreneurial intention?

This section seeks to develop an entrepreneurship model using the personality traits influencing entrepreneurial intention, social capital and entrepreneurship education as variables of entrepreneurial intention.

6.7.1 Pathway Analysis

Figure 24 shows the model between entrepreneurship model using the personality traits influencing entrepreneurial intention, social capital and entrepreneurship education as variables of entrepreneurial intention. There are unidirectional arrows from knowledge, social capital, attitudes, and entrepreneurship education to personal traits. The second set of unidirectional lines run from personal traits to entrepreneurship intention. The advantage of a SEM is that it also produces a regression table that will display the results and their statistical significance.
6.7.2 Structural Equation Model (SEM)

Structural equation modelling is a multivariate statistical analysis technique that is used to analyze structural relationships\(^1\). This technique is the combination of factor analysis and multiple regression analysis, and it is used to analyse the structural relationship between measured variables and latent construct. In this case the aim is of the SEM is to develop an entrepreneurship model using the personality traits influencing entrepreneurial intention, social capital and entrepreneurship education as variables of entrepreneurial intention.

The following equations was run in Stata statistical software;
Table 37: Table Structural Equation Model Regression

<table>
<thead>
<tr>
<th></th>
<th>Coef.</th>
<th>Std.err</th>
<th>z</th>
<th>P&gt;z</th>
<th>[95% Conf.Int]</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structural Equation Model</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Self-efficacy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>-0.008</td>
<td>0.096</td>
<td>-0.090</td>
<td>0.931</td>
<td>-0.197</td>
<td>0.180</td>
</tr>
<tr>
<td>Social capital</td>
<td>0.497</td>
<td>0.051</td>
<td>9.830</td>
<td>0.000</td>
<td>0.398</td>
<td>0.597</td>
</tr>
<tr>
<td>Attitudes</td>
<td>0.274</td>
<td>0.039</td>
<td>6.950</td>
<td>0.000</td>
<td>0.197</td>
<td>0.351</td>
</tr>
<tr>
<td>Ent education</td>
<td>0.143</td>
<td>0.046</td>
<td>3.130</td>
<td>0.002</td>
<td>0.053</td>
<td>0.232</td>
</tr>
<tr>
<td>_cons</td>
<td>0.346</td>
<td>0.147</td>
<td>2.360</td>
<td>0.018</td>
<td>0.059</td>
<td>0.634</td>
</tr>
<tr>
<td><strong>Achievement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>-0.049</td>
<td>0.108</td>
<td>-0.450</td>
<td>0.651</td>
<td>-0.261</td>
<td>0.163</td>
</tr>
<tr>
<td>Social capital</td>
<td>0.239</td>
<td>0.057</td>
<td>4.200</td>
<td>0.000</td>
<td>0.128</td>
<td>0.351</td>
</tr>
<tr>
<td>Attitudes</td>
<td>0.226</td>
<td>0.044</td>
<td>5.090</td>
<td>0.000</td>
<td>0.139</td>
<td>0.313</td>
</tr>
<tr>
<td>Ent education</td>
<td>0.323</td>
<td>0.051</td>
<td>6.280</td>
<td>0.000</td>
<td>0.222</td>
<td>0.423</td>
</tr>
<tr>
<td>_cons</td>
<td>1.051</td>
<td>0.165</td>
<td>6.360</td>
<td>0.000</td>
<td>0.727</td>
<td>1.375</td>
</tr>
<tr>
<td><strong>Innovativeness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>0.166</td>
<td>0.114</td>
<td>1.450</td>
<td>0.146</td>
<td>-0.058</td>
<td>0.390</td>
</tr>
<tr>
<td>Social capital</td>
<td>0.202</td>
<td>0.060</td>
<td>3.360</td>
<td>0.001</td>
<td>0.084</td>
<td>0.320</td>
</tr>
<tr>
<td>Attitudes</td>
<td>0.270</td>
<td>0.047</td>
<td>5.760</td>
<td>0.000</td>
<td>0.178</td>
<td>0.362</td>
</tr>
<tr>
<td>Ent education</td>
<td>0.311</td>
<td>0.054</td>
<td>5.730</td>
<td>0.000</td>
<td>0.205</td>
<td>0.417</td>
</tr>
<tr>
<td>_cons</td>
<td>0.656</td>
<td>0.174</td>
<td>3.760</td>
<td>0.000</td>
<td>0.314</td>
<td>0.998</td>
</tr>
<tr>
<td><strong>Locus</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>0.181</td>
<td>0.120</td>
<td>1.500</td>
<td>0.134</td>
<td>-0.055</td>
<td>0.416</td>
</tr>
<tr>
<td>Social capital</td>
<td>0.118</td>
<td>0.063</td>
<td>1.870</td>
<td>0.062</td>
<td>-0.006</td>
<td>0.243</td>
</tr>
<tr>
<td>Attitudes</td>
<td>0.197</td>
<td>0.049</td>
<td>4.000</td>
<td>0.000</td>
<td>0.101</td>
<td>0.294</td>
</tr>
<tr>
<td>Ent education</td>
<td>0.111</td>
<td>0.057</td>
<td>1.950</td>
<td>0.051</td>
<td>-0.001</td>
<td>0.223</td>
</tr>
<tr>
<td>_cons</td>
<td>1.707</td>
<td>0.184</td>
<td>9.290</td>
<td>0.000</td>
<td>1.347</td>
<td>2.067</td>
</tr>
<tr>
<td><strong>Intention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>0.493</td>
<td>0.047</td>
<td>1.8734</td>
<td>0.000</td>
<td>0.401</td>
<td>0.586</td>
</tr>
<tr>
<td>Achievement</td>
<td>0.113</td>
<td>0.061</td>
<td>1.850</td>
<td>0.065</td>
<td>-0.007</td>
<td>0.232</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>0.267</td>
<td>0.055</td>
<td>4.830</td>
<td>0.000</td>
<td>0.158</td>
<td>0.375</td>
</tr>
<tr>
<td>Locus</td>
<td>0.088</td>
<td>0.047</td>
<td>1.890</td>
<td>0.058</td>
<td>-0.003</td>
<td>0.180</td>
</tr>
<tr>
<td>_cons</td>
<td>0.094</td>
<td>0.180</td>
<td>0.520</td>
<td>0.601</td>
<td>-0.258</td>
<td>0.446</td>
</tr>
<tr>
<td>var(e.SelfEfficacy)</td>
<td>0.260</td>
<td>0.018</td>
<td>2.227</td>
<td>0.297</td>
<td></td>
<td></td>
</tr>
<tr>
<td>var(e.Achievement)</td>
<td>0.329</td>
<td>0.023</td>
<td>2.888</td>
<td>0.377</td>
<td></td>
<td></td>
</tr>
<tr>
<td>var(e.Innovative~1)</td>
<td>0.367</td>
<td>0.025</td>
<td>3.21</td>
<td>0.420</td>
<td></td>
<td></td>
</tr>
<tr>
<td>var(e.Locus)</td>
<td>0.407</td>
<td>0.028</td>
<td>3.566</td>
<td>0.466</td>
<td></td>
<td></td>
</tr>
<tr>
<td>var(e.INTENTION)</td>
<td>0.351</td>
<td>0.024</td>
<td>3.07</td>
<td>0.402</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LR test of model vs. saturated: chi2(10) = 492.52, Prob > chi2 = 0.0000

Structural equation model Number of obs=424 Estimation method =ml Log likelihood = -3137.68
(9 observations with missing values excluded)
6.7.2.1 Equation 1: Self-Efficacy

Entrepreneurship knowledge in this sample had no influence on self-efficacy. Results are not statistically significant at 5% level. Notably, the descriptive results indicate only one positive—they knew a family member who was running a business, but did not know a friend running a business, did not have a family member who were running a business and were not currently running a business.

Social capital had significant positive influence on self-efficacy ($\beta=0.50$, $p<0.05$), a unit increase in social capital was likely to increase/improve self-efficacy by as much as 50%. Attitude had significant positive influence on self-efficacy ($\beta=0.27$, $p<0.05$), a unit increase in social capital was likely to increase/improve self-efficacy by as much as 27%. Lastly, entrepreneurship education had significant positive influence on self-efficacy ($\beta=0.14$, $p<0.05$), a unit increase in social capital was likely to increase/improve self-efficacy by as much as 14%. In terms of self-efficacy, social capital had the greatest influence, followed by attitudes and lastly entrepreneurship education.

6.7.2.2 Equation 2: Needs Achievement

Entrepreneurship knowledge in this sample had no influence on self-efficacy, results are not statistically significant at 5% level. Social capital had significant positive influence on needs achievement ($\beta=0.23$, $p<0.05$); a unit increase in social capital was likely to increase/improve needs achievement by as much as 23%. Attitude had significant positive influence on needs achievement ($\beta=0.22$, $p<0.05$); a unit increase in social capital was likely to increase/improve needs achievement by as much as 22%. Lastly, entrepreneurship education had significant positive influence on needs achievement ($\beta=0.32$, $p<0.05$); a unit increase in entrepreneurship education was likely to increase/improve needs achievement by as much as 32%. In terms of needs achievement, entrepreneurship education had the greatest influence, followed by both social capital and attitudes, and not as much influence as with self-efficacy.
6.7.2.3 Equation 3: Innovativeness

Entrepreneurship knowledge in this sample had no influence on self-efficacy, results are not statistically significant at 5% level. Social capital had significant positive influence on self-innovativeness ($\beta = 0.20, p<0.05$); a unit increase in social capital was likely to increase/improve innovativeness by as much as 20%. Attitude had significant positive influence on innovativeness ($\beta = 0.27, p<0.05$); a unit increase in social capital was likely to increase/improve innovativeness by as much as 27% (just as it did with efficacy). Lastly, entrepreneurship education had significant positive influence on self-efficacy ($\beta = 0.31, p<0.05$); a unit increase in entrepreneurship education was likely to increase/improve innovativeness by as much as 37%. In terms of innovativeness, entrepreneurship education had the greatest influence, followed by attitudes and lastly social capital.

6.7.2.4 Equation 4: Locus of control

Entrepreneurship knowledge in this sample had no influence on self-efficacy; results are not statistically significant at 5% level. Social capital had significant positive influence on self-innovativeness ($\beta = 0.11, p<0.05$); a unit increase in social capital was likely to increase/improve locus by as much as 11%. Attitude had significant positive influence on innovativeness ($\beta = 0.19, p<0.05$); a unit increase in social capital was likely to increase/improve locus of control by as much as 19%. Lastly, entrepreneurship education had significant positive influence on self-efficacy ($\beta = 0.11, p<0.05$); a unit increase in entrepreneurship education was likely to increase/improve locus by as much as 11%. In terms of locus, attitudes had the greatest influence, followed by attitudes and lastly social capital.
6.7.2.5 Equation 5: Factors influencing entrepreneurial intention

Social capital, attitudes, innovativeness and locus indirectly influence entrepreneurship intention. The following section provides the direct influencers of EI. Self-efficacy had significant positive association with EI ($\beta=0.49$, $p<0.05$); results significant at 5% level. The results suggest strong evidence that a unit increase in self-efficacy was likely to influence EI by as much as 49%.

Needs achievement had significant positive association with EI ($\beta=0.11$, $p<0.05$); results are significant at 10% level. The results suggest weak evidence that a unit increase in self-efficacy was likely to influence EI by as much as 11%.

Innovativeness had significant positive association with EI ($\beta=0.27$, $p<0.05$); results are significant at 5% level. The results suggest weak evidence that a unit increase in innovativeness was likely to influence EI by as much as 27%.

Locus had significant positive association with EI ($\beta=0.1$, $p<0.1$); weak results at 10% statistical significance level. The results provide evidence, though weak that a unit increase in locus was likely to influence EI by as much as only 1%.

In summary self-efficacy and innovativeness had strong influence on EI, while needs achievement and locus control had weak influence. Entrepreneurship knowledge had no influence on EI.

6.8 SEM Goodness of Fit

Kline suggests that at a minimum the following indices should be reported: the model chi-square, RMSEA, CFI, and SRMR as shown in Table 38.
Table 38: SEM Goodness of Fit

<table>
<thead>
<tr>
<th>Fit statistic</th>
<th>Value</th>
<th>Description</th>
<th>Cut off point</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Likelihood ratio</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>chi2_ms(22)</td>
<td>152.535</td>
<td>model vs. saturated</td>
<td></td>
</tr>
<tr>
<td>p &gt; chi2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>chi2_bs(36)</td>
<td>1419.742</td>
<td>baseline vs. saturated</td>
<td>p-value &gt; 0.05</td>
</tr>
<tr>
<td>p &gt; chi2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Population error</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.237</td>
<td>Root mean squared error of approximation</td>
<td>RMSEA &lt; 0.08</td>
</tr>
<tr>
<td>90% CI, lower bound</td>
<td>0.202</td>
<td></td>
<td></td>
</tr>
<tr>
<td>upper bound</td>
<td>0.273</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pclose</td>
<td>0</td>
<td>Probability RMSEA &lt;= 0.05</td>
<td></td>
</tr>
<tr>
<td><strong>Information criteria</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIC</td>
<td>1228.823</td>
<td>Akaike’s information criterion</td>
<td></td>
</tr>
<tr>
<td>BIC</td>
<td>1308.727</td>
<td>Bayesian information criterion</td>
<td></td>
</tr>
<tr>
<td><strong>Baseline comparison</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFI</td>
<td>0.906</td>
<td>Comparative fit index</td>
<td>CFI ≥.90</td>
</tr>
<tr>
<td>TLI</td>
<td>0.846</td>
<td>Tucker-Lewis index</td>
<td>NFI ≥ 0.95</td>
</tr>
<tr>
<td><strong>Size of residuals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRMR</td>
<td>0.355</td>
<td>Standardized root mean squared residual</td>
<td>SRMR &lt;.08</td>
</tr>
<tr>
<td>CD</td>
<td>0.577</td>
<td>Coefficient of determination</td>
<td></td>
</tr>
</tbody>
</table>

Table 38 indicates that the chi-square (p<0.05), comparative fit index (CFI), Tucker–Lewis index (TLI), and the root mean square error of approximation (RMSEA) were significant, and indicating that the explanatory power of the model was good. However, the Standardized root mean squared residual (SRMR) was above the recommended range (0 to 0.05) (Kline, 2005:55) and hence the results should be interpreted with caution.

6.9 CONCLUSION

The chapter managed to present and interpret the results of the survey. The findings revealed that the majority of respondents were females. The chapter presented fascinating findings with regard to the relationships between key variables of the study namely, entrepreneurial intention, exposure to entrepreneurship education, social capital and personality traits. The findings revealed that the majority of respondents had an
intrinsic desire to create entrepreneurial venture at some point in life with no specific timelines. The majority of the respondents felt that learning entrepreneurship prompted them to wanting to be an entrepreneur. A significant number of respondents revealed that there is a positive relationship between social capita and entrepreneurial intention.

The majority of factors measuring the personality traits were statistically and significantly related to entrepreneurial intention. The study found no evidence of innovativeness as a driver of entrepreneurial intention. The chapter concluded with proposing an entrepreneurship model using the personality traits influencing entrepreneurial intention, social capital and entrepreneurship education as variables of entrepreneurial intention. The next chapter presents conclusions and recommendations. This is achieved by way of establishing the extent to which the results achieved the objectives of the study.
CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

7.1 INTRODUCTION

The study’s previous section focused on results analysis and interpretation of results. This chapter dwells on the study’s conclusion and recommendations on the investigation of entrepreneurial intention among matric commerce students in rural areas of KwaZulu-Natal province in South Africa. This is a high-level summary of the key research findings along with the study’s recommendations. The suggestions for future studies are also discussed in this section.
Table 39: Structure of Chapter 7

- Conclusion and Recommendations
- Introduction
- Main Research Findings
- Factors Underlying Entrepreneurial Intention
- Factors Underlying Entrepreneurial Intention: Constructs
- Hypothesis Testing
- Structural Equation Model
- Recommendations
- Research Limitations
- Suggestions For Future Studies
7.2 MAIN RESEARCH FINDINGS

7.2.1 Factors Underlying Entrepreneurial Intention

7.2.1.1 Entrepreneurial Knowledge

The study noted that seven out of ten respondents were familiar with the other persons who were entrepreneurs. Roughly 47% of them had family members who were running a business while the rest did not. About 65% of respondents had not tried to start a business before, while 68% did not have friends running a business. All in all, the respondents were familiar with other people who were running a business and were not likely to have a family member or friend running a business.

7.2.1.2 Entrepreneurial Intention

At least three quarters of the respondents felt that the curriculum had contributed positively towards their interest to start a business. In addition, 70% were ready to start a business after their studies and believed that their professional goal was to be an entrepreneur. The highest rated mean score indicated that the curriculum had contributed positively towards their interest to start a business, and this was followed by the strong intention of starting a business in the future.

7.2.1.3 Attitudes Towards Becoming an Entrepreneur

80% of the respondents indicated that being an entrepreneur implies more advantages than disadvantages to them as the respondents felt that if they had the opportunity and resources, they would like to start a business. The same proportion of respondents felt that their subjects had contributed positively and seven out of ten of them felt that amongst various options, they would rather be entrepreneurs.
7.2.1.4 Self-Efficacy

Respondents generally agreed to all aspects of entrepreneurial self-efficacy with the highest rated mean score on the ability to generate new idea for a product or service followed by identifying the need for a new product or service and thirdly the ability to organise and maintain financial records of a business. Eighty percent of respondents believed that they would generate new ideas for a product or service and had a view that they would be able to identify the need for a new product or service. The same proportion believed they would be able to organise and maintain financial records of their business and that they can manage business financial assets. Similarly, three quarters felt they would be able to estimate customer demand for a new product or service. Seven out of ten respondents believed they would be able to develop and maintain favourable relationships with potential investors and that they were able to estimate the amount of start-up funds and working capital necessary to start a business.

7.2.1.5 Social Capital

At least 80% of respondents highly rated three factors of social capital as they felt that they can put reliance on their family that they will support their decision to start a business. They added that they felt they have other entrepreneurs who can aid in their decision to start a business and hold a view that the culture in their community values entrepreneurship. Similarly, three quarters of respondents felt that their community have entrepreneurs and that their family and their circle of friends approve and support entrepreneurship. Lastly, the two least rated aspects of social capital involved the personally knowledge of someone involved in entrepreneurship in their family as well as having a friend who is involved in entrepreneurship.
7.2.1.6 Locus of Control

The study identified three most positively rated aspects of locus of control. Eight out of ten students felt that when they get what they want, it is usually because they had worked hard for it. They also felt in control of their life and that their life was determined by their own actions. Seven out of ten of them felt that their success in life depends mostly on their ability. The respondents seemed uncertain about the rest of the aspects especially that, to a great extent their life was controlled by accidental happenings, that success in business is mostly a matter of luck and that it is not wise for them to plan too far ahead, because things turn out to be a matter of bad fortune. The respondents were unanimous on two aspects, i.e., that is their success depends on whether they were lucky enough to be in the right place at the right time or that they felt that what happens in their life is mostly determined by people in powerful positions.

7.2.2 Innovativeness and Achievement

7.2.2.1 Need for Achievement

More than 85% of respondents believed that the three aspects of need for achievement were equally important compared to innovativeness. They felt that they will try hard to perform better than their friends, they will try hard to improve on past work performance and they will do very well in difficult tasks relating to their study.

7.2.2.2 Innovativeness

In this regard, at least 75% of respondents preferred work that requires original thinking. They often surprised people with new and different ideas. Seven out of ten of them felt they can obtain more satisfaction from mastering a skill than coming up with a new business and people often asked them for help in creative activities. The study also noted that the mean values highly rated that the respondents try hard to perform better than their friends, try hard to improve on past work performance as well as doing very well in difficult tasks. Innovativeness was fairly rated by the study in respect to the respondent's
preference for work that requires original thinking, obtain more satisfaction from mastering a skill than coming up with a new skill and often surprise people with new and different ideas.

7.2.2.3 Entrepreneurship Education

Over 80% of respondents were positive that entrepreneurship aspects were important in intention to business and highly noted that their subjects promoted entrepreneurship. Respondents felt that learning entrepreneurship has prompted them to wanting to be an entrepreneur and that their aspiration to be an entrepreneur is attributed to entrepreneurship education they have received throughout their schooling years.

7.2.3 Factors Underlying Entrepreneurship Intention: Constructs

7.2.3.1 Intention to Entrepreneurship and its Constructs

The study founded that entrepreneurship knowledge had the lowest score, demonstrating that there was low knowledge. The descriptive statistics indicated that there was only one factor that was positive, i.e., that is they knew another person who was an entrepreneur. The personal traits of need achievement had the highest mean score followed by self-efficacy, innovativeness and locus control across the board. Social capital along with attitude had higher scores too, demonstrating the importance in intention to entrepreneurship. There was high knowledge of entrepreneurship which was followed by a relatively high entrepreneurship intention.

7.3 RELIABILITY

Cronbach’s alpha reliability coefficient normally ranges between 0 and 1 (Gliem and Gliem, 2003). In respect to this study all the sub scales were within acceptable reliability ranges (which was approximately 0.7). The reliability check was considered critical as it
may influence the Structural Equation Model. The closer Cronbach’s alpha coefficient is to 1.0 the greater the internal scale consistency.

7.4 HYPOTHESIS TESTING

The study noted that there was a positive relationship between entrepreneurial intention and attitude, as the probability value was less than 0.05. Therefore, the study rejected the null hypothesis. In a similar fashion, there was no association between entrepreneurial intention and locus with a probability value as the probability value was greater than 0.05 and this led to the failure of the rejection of the null hypothesis under hypothesis 2. No statistical relationship was realised between innovativeness and entrepreneurial intention and the study failed to reject the null hypothesis. The variables, entrepreneurial intention and achievement had a mean value of 0.34 while entrepreneurial intention and self-efficacy mean value stood at -0.09. Because the p-values were less than 0.05 at 5% level of significance there was a relationship that existed between these variables. The study found that there was no relationship between entrepreneurial intention and social capital as well as entrepreneurial intention and entrepreneurship as their probability values were greater than 0.05. A positive relationship was also observed between entrepreneurship knowledge and entrepreneurial intention.

7.4 STRUCTURAL EQUATION MODEL

7.4.1 Pathway Analysis

The study considered the model between entrepreneurship variables using the personality traits influencing entrepreneurial intention, social capital and entrepreneurship education as variables of entrepreneurial intention. It was realised that there was unidirectional arrows and causation from knowledge, social capital, attitudes and entrepreneurship education to personal traits. Another set of unidirectional lines runs from personal traits to entrepreneurship intention. In this study, SEM developed an entrepreneurship model using the personality traits influencing entrepreneurial intention, social capital and entrepreneurship education as variables of entrepreneurial intention.
7.5 SEM EQUATIONS

7.5.1 Equation 1: Self-Efficacy

It was highlighted that entrepreneurship knowledge in this sample had no influence on self-efficacy. Notably, the results indicated only one positive factor, i.e., that is respondents knew a family member who was running a business. Social capital, attitude and entrepreneurship education had significant positive influence on self-efficacy. In terms of self-efficacy, social capital had the greatest influence followed by attitudes and lastly entrepreneurship education.

7.5.2 Equation 2: Needs Achievement

Entrepreneurship knowledge in this sample had no influence on self-efficacy. Social capital, attitude and entrepreneurship education had significant positive influence on needs achievement. Entrepreneurship education had the greatest influence on needs achievement, followed by both social capital and attitudes, and not as much influence as with self-efficacy.

7.5.3 Equation 3: Innovativeness

Entrepreneurship knowledge in this sample had no influence on self-efficacy. Social capital, attitude and entrepreneurship education had significant positive influence on self- innovativeness. Entrepreneurship education had the greatest influence on innovativeness followed by attitudes and lastly by social capital.

7.5.4 Equation 4: Locus of control

Entrepreneurship knowledge in this sample had no influence on self-efficacy. Social capital and attitude had significant positive influence on self-innovativeness. In addition,
entrepreneurship education had significant positive influence on self-efficacy. Attitudes had the greatest influence on locus followed by attitudes and social capital.

### 7.5.5 Equation 5: Factors influencing entrepreneurial intention

Social capital, attitudes, innovativeness and locus indirectly influenced entrepreneurship intention. Self-efficacy, needs achievement, innovativeness and locus control had a significantly positive association with entrepreneurship intention. All in all, self-efficacy and innovativeness had strong influence on entrepreneurship intention, while needs achievement and locus control had weak influence. Entrepreneurship knowledge had no influence on entrepreneurship intention.

### 7.6 SEM GOODNESS of FIT

The study’s chi-square of fitness test considered comparative fit index (CFI), Tucker–Lewis index (TLI), and the root mean square error of approximation (RMSEA) and were significant and indicated that the explanatory power of the model was on point and good. However, the results should be interpreted with caution as the Standardized Root Mean Squared Residual (SRMR) was above the recommended range (0 to 0.05) (Kline, 2005:55).

### 7.7 RECOMMENDATIONS

Recommendations in this study were drawn from the findings of this research. The findings of this study were in line with the literature. The study makes the following recommendations to the business, corporate world among others.

- The study noted that about 65% of the respondents had not tried to start a business before, while 68% of them did not have friends running a business. Government authorities should come up with awareness programmes that encourage business start-ups especially because unemployment looms the South African market. This is because entrepreneurship in this market can be one end that will not only
eradicate unemployment but also enhanced the welfare levels of the citizens after their matric.

- Although three quarters of the respondents felt that the curriculum has contributed positively towards their interest to start a business, the government authorities should channel the curriculum even more positively in order to interest these matric students in starting a business after leaving school. This will not only increase the entrepreneurship intention and business starting of these school leavers but rather reduce social evils in the society that would have been brought by in idleness.

- In addition, a larger proportion believed they would be able to organise and maintain financial records of their business and that they can manage financial assets of a business. The authorities are highly encouraged to provide free workshops and training activities that will equip these matric students as far as the management of financial records and assets of the business is concerned besides the academic subjects they are taught. This is highly encouraged as the poor management of financial records and assets will frustrate the survival and sustainability of the entrepreneurial business.

- Correct estimation of the external business environment is key for the survival of these entrepreneurs in the market; hence the authorities are highly encouraged to educate these matric students as far as the basic product market demand and supply is concerned.

- Customer based relationship and knowing your customer should be formed as a basic principle among these entrepreneurs as this enhances loyalty of day-to-day customers. This will then increase daily sales, market shares and form some basic guarantee of the future of entrepreneurs.

- Additionally, because entrepreneurial business does not have an operations rule of thumb, entrepreneurs are high encouraged to be innovative and creative. This is because the study found no statistical relationship between innovativeness and entrepreneurial intention, and normally, entrepreneurs operate in perfect market conditions that will be characterized by homogenous products as well as freedom of entry and exit, hence innovation is key.
7.8 RESEARCH LIMITATIONS

Although the study was properly conducted to investigate entrepreneurial intentions of matric commerce students in the rural areas of KwaZulu-Natal in South Africa, it cannot be ignored that every study can be accompanied by its own limitations. The study presented a sample size that constituted a list of all the matric learners who were studying commercial subjects in all the 11 (eleven) districts and ten wards predominantly rural in KwaZulu-Natal Province. This was academically justified but in the real world it is very small against the actual South African population and its provinces. This implies that the study results cannot be generalized to the entire South African population.

7.9 SUGGESTIONS FOR FUTURE STUDIES

The following suggestions are given and can be considered by future studies.

- In future other researchers may consider the same scope and area of study but making use of a different methodological approach. Studies may use an approach that will be able to rank the level of entrepreneurship intention of these matric students.

- Alternatively, the same research can be conducted but in the form of a comparative study across African countries and this will enrich a wider and better understanding at continental level.

- A study on entrepreneurial intention of commerce matric students can also be examined in the context of both urban and rural areas of South Africa in order to ascertain the net effect as entrepreneurship cuts across both in the rural and urban areas.
REFERENCES


Liang, J. J., Qu, B. Y., Suganthan, P. N., & Hernández-Díaz, A. G. (2013). Problem definitions and evaluation criteria for the CEC 2013 special session on real-parameter optimization. *Computational Intelligence Laboratory, Zhengzhou University, Zhengzhou,*


APPENDIX 1: LETTER OF INFORMATION

Title of the Research Study: Entrepreneurial Intention of Matric Commerce Students in Rural Areas of KwaZulu-Natal, South Africa.

Principal Investigator/s/researcher: Mondli Phetha (MBA)

Co-Investigator/s/supervisor/s: PROF JK ADAM (PHD, FABAP)

Brief Introduction and Purpose of the Study:

The youth of South Africa is facing the challenge of finding employment. Youth entrepreneurship has been proposed as one the solutions for curbing youth unemployment in South Africa. This study seeks to investigate personality traits that influence entrepreneurial intention, to establish the impact of social capital and entrepreneurship education on entrepreneurial intention of the youth of South Africa. The study will be focusing on matric learners who are studying commerce subjects. The title of the study will therefore be, Entrepreneurial Intention of Matric Commerce Students in Rural Areas of KwaZulu-Natal, South Africa”. The aims of the study will be to investigate entrepreneurial intention of matric learners in who will be studying commercial subjects in 2018 in the Province of KwaZulu-Natal in South Africa.

Outline of the Procedures:

All participating matric commerce students will be personally introduced to the research study in formal introductory meeting, to be arranged at the respective schools. The questionnaires will be written in English language which is simple to understand and free of ambiguity. A consent will be sought from parents of those participants who are below the age of 18 years. At the introductory meeting, the research structure and the responsibilities of the participants will be explained in detail. Each participant will be issued with a letter of information and consent form and parent consent form to be signed.
Opportunity will be afforded to clear any misconceptions and queries regarding the participant’s involvement.

You will be required to complete in a self–administered structured questionnaire. The researcher will afford the participant three days to complete the questionnaire. The researcher will come to your respective school after three from the date of introductory meeting to collect the questionnaires.

**Risks or Discomforts to the Participant:**

The researcher envisages no risks or discomforts or adverse reactions to you.

**Benefits:**

The study will make important contribution for government establishments tasked with fostering the culture of economically emancipated citizenship of youth group of the society. Provide empirically tested literature on the antecedent of entrepreneurial intention, confining the scope of focus to personality traits that influencing entrepreneurial intention, social capital, and entrepreneurship education.

For basic education level, particularly matric population, the study will on the strength of the literature to be consulted on entrepreneurship education show and recommend how entrepreneurial intention and behavior can be strengthened in learners at matric level as a way to make a contribution to future pool of entrepreneurs. The study will assist policymakers in South Africa. The study envisaged to collate personality traits important to aspiring entrepreneur, investigate potential linkages or lack thereof between social capital, entrepreneurship education and entrepreneurial intention.
Reason/s why the Participant May Be Withdrawn from the Study:

Participation is of voluntary basis and you may withdraw from the research study at any time and for any reason. There will be no adverse consequences for withdrawal.

Remuneration:

Participation does not attract remuneration in any nature of form.

Costs of the Study:

There will be no costs accrued by the participants as a result of your participation.

Confidentiality:

The study will involve the collection, access and use of your identified personal information. The information to be collected will be confidential and will not be disclosed to third parties without your consent, except to comply with a law. The confidentiality of records will be maintained by way of a secure storage of data in a locked cabinet. To benefits the schools in which the research will be conducted, the research findings will be presented in academic platforms.

Research-related Injury:

The researcher envisages no research-related injury or discomforts or adverse reactions to you.

Persons to Contact in the Event of Any Problems or Queries:

Please contact the researcher (Mondli Phetha) on 083 3195593, my supervisor (PROF JK ADAM on 031 373 3093) or the Institutional Research Ethics administrator on Ethics.
Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support, Prof S Moyo on 031 373 2577 or moyos@dut.ac.za
Dear Student

Thank you for participating in this important study. The aim of the study is to investigate entrepreneurial intention of matric students with commercial subjects in rural areas of Kwa-Zulu Natal, South Africa. The data will only be accessed by the researcher and all personal data will be kept strictly confidential and will be coded to render it anonymous. In order to the intention of matric students or lack thereof, it will be necessary to survey you. Therefore, I would be grateful if you would complete the questions below.

**Personal Information**

**Q1 Age**

State number of years

**Q2 Ethnicity**

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<table>
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<tbody>
<tr>
<td>Black</td>
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<td>White</td>
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<td>Indian</td>
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<tr>
<td>Coloured</td>
<td></td>
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<tr>
<td>Other</td>
<td></td>
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</tbody>
</table>
Q3  Gender

Male  
Female

Section B: Entrepreneurship knowledge

Q1  I am currently running my business

Yes  
No

Q2  I have tried to start a business before

Yes  
No

Q3  I have a family members who are running a business

Yes  
No

Q4  I have friends running a business

Yes  
No

Q5  I know other person in who is an entrepreneur

Yes  
No
C. Entrepreneurial Intention

For each of the statements in the table below, choose only one of the eight options, ranging from “strongly disagree” to “strongly agree” and mark your answer with a cross.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am ready to start a business after my studies</td>
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<tr>
<td>My professional goal is to be an entrepreneur</td>
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<tr>
<td>I will make every effort to start and run my own business</td>
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<tr>
<td>I am determined to create a business venture in the future</td>
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<tr>
<td>I do not have doubt about ever starting a business in the future</td>
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<tr>
<td>I have very serious thought of starting a business in the future</td>
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<tr>
<td>I have a strong intention of starting a business in the future</td>
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<tr>
<td>The curriculum has contributed positively towards my interest to start a business</td>
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</tbody>
</table>
**D. Attitude towards becoming an entrepreneur**

For each of the statements in the table below, choose only one of the eight options, ranging from “strongly disagree” to “strongly agree” and mark your answer with a cross.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being an entrepreneur implies more advantages than disadvantages to me.</td>
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<tr>
<td>A career as an entrepreneur is totally attractive to me.</td>
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<tr>
<td>If I had the opportunity and resources, I would like to start a business.</td>
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<tr>
<td>Amongst various options, I would rather be an entrepreneur</td>
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<tr>
<td>Being an entrepreneur would give me great satisfaction.</td>
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<tr>
<td>My subjects have contributed positively to my attitude towards becoming an entrepreneur</td>
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</tbody>
</table>
E. Personality Traits

For each of the statements in the table below, choose only one of the eight options, ranging from “strongly disagree” to “strongly agree” and mark your answer with a cross.

**Q1  Locus of Control**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My success in life depends mostly on my ability</td>
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<tr>
<td>I feel that what happens in my life is mostly determined by people in powerful positions</td>
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<tr>
<td>My success depends on whether I am lucky enough to be in the right place at the right time</td>
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<tr>
<td>To a great extent my life is controlled by accidental happenings</td>
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<tr>
<td>When I get what I want, it is usually because I am lucky</td>
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<tr>
<td>My life is determined by my own actions</td>
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<tr>
<td>When I get what I want, it is usually because I worked hard for it</td>
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<tr>
<td>I feel in control of my life</td>
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<tr>
<td>Success in business is mostly a matter of luck</td>
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<tr>
<td>It is not wise for me to plan too far ahead, because things turn out to be a matter of bad fortune</td>
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</tr>
</tbody>
</table>
## Q2 Innovativeness

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I often surprise people with my new and different ideas</td>
<td></td>
<td></td>
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<tr>
<td>People often ask me for help in creative activities</td>
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<tr>
<td>I obtain more satisfaction from mastering a skill than coming up with a new</td>
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<tr>
<td>I prefer work that requires original thinking</td>
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</table>

## Q3 Need for Achievement

<table>
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<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will do very well in fairly difficult task relating to my study</td>
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<tr>
<td>I will try hard to improve on past work performance</td>
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<tr>
<td>I will try hard to perform better than my friends</td>
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</tbody>
</table>
Q4 Entrepreneurial self-efficacy

<table>
<thead>
<tr>
<th>I am confident in my ability to generate new idea for a product or service</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am confident in my ability to identify the need for a new product or service</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I am confident in my ability to design a product or service that will satisfy customer needs and wants</td>
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<tr>
<td>I am confident in my ability to estimate customer demand for a new product or service</td>
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<tr>
<td>I am confident in my ability to determine a competitive price for a new product or service</td>
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<tr>
<td>I am confident in my ability to estimate the amount of start-up funds and working capital necessary to start a business</td>
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<tr>
<td>I am confident to design an effective marketing/ advertising campaign for a new product or service</td>
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<tr>
<td>I am confident in my ability to get others to identify with and believe in my vision and plans for a new business</td>
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<tr>
<td>I am confident in my ability to make contact with and</td>
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</tbody>
</table>
I am confident in my ability to exchange information with others

I am confident in my ability to explain and write my business idea

I am confident in my ability to develop relationships with key people who are connected to sources of capital

I am confident in my ability to develop and maintain favourable relationships with potential investors.

I am confident in my ability to identify potential sources of funding for investment in my business

I am confident in my ability to organise and maintain financial records of my business

I am confident in my ability to manage financial assets of my business

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I personally know someone involved in entrepreneurship in my family</td>
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</tr>
</tbody>
</table>

**F. Social Capital**

For each of the statements in the table below, choose only one of the eight options, ranging from “strongly disagree” to “strongly agree” and mark your answer with a cross.
I have a friend who is involved in entrepreneurship
My community have entrepreneurs
My family approves of entrepreneurship
My friend circle approves and support entrepreneurship
My schoolmates support entrepreneurship
The culture in my community values entrepreneurship
I can put reliance on my family that they will support my decision to start a business
I have other entrepreneurs who can provide assistance in my decision to start a business

G. Entrepreneurship Education

For each of the statements in the table below, choose only one of the eight options, ranging from "strongly disagree" to "strongly agree" and mark your answer with a cross.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My subjects promotes entrepreneurship</td>
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<tr>
<td>Learning entrepreneurship has prompted me to wanting to be an entrepreneur</td>
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<tr>
<td>My aspiration to be an entrepreneur is attributed to entrepreneurship education</td>
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have received throughout my schooling years
17 October 2019

Mr M H Phetha
448 Imbali
Unit 15
Pietermaritzburg
3201

Dear Mr Phetha

Entrepreneurial Intention of Matric Commerce Students in Rural Areas of KwaZulu-Natal, South Africa.
Ethical Clearance number IREC 136/18

The Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tool.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the IREC acknowledges receipt of your gatekeeper permission letter.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC SOP's.

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely
APPENDIX 4: PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS

Enquiries: Phindile Duma
Tel: 033 392 1041
Ref.: 24/8/1376

Mr MH Phetha
448 Imbali Unit 15
Pietermaritzburg
3201

Dear Mr Phetha

PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS

Your application to conduct research entitled: "ENTREPRENEURIAL OF MATRIC STUDENTS WITH COMMERCE SUBJECTS IN RURAL AREAS OF KWAZULU-NATAL PROVINCE, SOUTH AFRICA", in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 31 October 2017 to 09 July 2020.
7. Your research and interview will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Miss Phindile Duma at the contact numbers below.
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report/dissertation/thesis must be submitted to the research office of the Department. Please address it to The Office of the HOD, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to schools and institutions in KwaZulu-Natal Department of Education.

List of Schools Attached

Dr: EV Ngama
Head of Department: Education
Date: 01 November 2017