Cape Peninsula
University of Technology

THE IMPACT OF ENTREPRENEURSHIP EDUCATION ON ACTUAL ENTREPRENEURSHIP INTENTIONS, PRACTICES AND OUTCOMES AMONGST STUDENTS IN A UNIVERSITY OF TECHNOLOGY IN THE WESTERN CAPE

BY

AKINLOLU JOSEPH OMOYAJOWO

Thesis submitted in fulfilment of the requirements for the degree: Master of Technology: Business Administration in Entrepreneurship in the Faculty of Business and Management Sciences at the Cape Peninsula University of Technology

Supervisor: Professor Chux Gervase Iwu
Co-supervisor: Professor Robertson Tengeh

District Six, Cape Town Campus
December 01, 2022

DECLARATION

I, Akinlolu Joseph Omoyajowo declare that the contents of this thesis represent my own unaided work, and that the thesis/dissertation has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

……

Signed Date

ABSTRACT

The purpose of this study was to ascertain the extent to which entrepreneurial education influences students' intention to pursue entrepreneurial endeavours or outcomes upon graduation, as opposed to becoming job seekers.

The study essentially sought to determine the reason why entrepreneurship students in South Africa generally seek paid employment as opposed to their becoming entrepreneurs, having passed through entrepreneurship education; and whether the entrepreneurship education they received was adequate to push them toward entrepreneurial outcomes.

The study adopted a mixed method approach to gather data from 136 randomly selected students in their third and fourth years of studies respectively, from a university of technology in South Africa.

The Statistical Package for Social Sciences (SPSS) tool for data analysis was used in capturing and analysing the acquired data.

It is interesting to note that the findings do not indicate any statistically significant gaps between the university's entrepreneurship education and the students' entrepreneurial intent. However, it shows how factors such as family background (whether or not the students had an entrepreneurial role model in the family), work experience, fear of failure versus hope of success, etc., all have some influence on their entrepreneurial intentions.

Further studies may explore some other factors that came up during the course of the study such as more of the participants who had entrepreneurial parents, or more having mothers in entrepreneurship than fathers. This may shed more light on how much this factor has influenced the students' entrepreneurial intention. Further studies may also determine why there are more females interested in studying entrepreneurship than their male counterparts which can, perhaps, be linked to the reason why the students had more mothers as entrepreneurs compared to fathers.

ACKNOWLEDGEMENTS

I wish to thank:

- Almighty God; without His grace, this would have only remained a dream.
- My supervisors, Professor R. Tengeh and Professor C.G. Iwu for their support, guidance, feedback, encouragement, criticism, and the push I needed to complete this work.
- Nicole Arendse, the Department of Entrepreneurship and Business Management's secretary, for her support and guidance in helping to reach the students and pointing me in the direction of different stakeholders, while also keeping me up to date with workshops and events.
- My father, Professor Joseph Akinyele Omoyajowo, for his love, and encouragement and for being a perfect example and role model.
- My wife, Mrs Edidiong Omoyajowo, for her love, support, encouragement and her patience.
- Professor Ken Barris, for his help in reviewing the thesis.
- Third and fourth-year students of CPUT for participating in the study
- My siblings: Ven. Akinwale Omoyajowo, Mrs. Bolanle Onyilo, Ven. Akinyele Omoyajowo, Rev. Akinboye Omoyajowo, Mrs. Bukola Babalola, and Mr. Akinkunle Omoyajowo, for their love, advice.

DEDICATION

This thesis is dedicated to my mother, Mrs. Grace Adenike Omoyajowo, of blessed memory, who pushed me to always strive for academic excellence; for her firm belief in me; her prayers, and her financial support.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

GLOSSARY

ABBREVIATIONS AND ACRONYMS

CPUT Cape Peninsula University of Technology

E/P Entrepreneurial performance

ESE Entrepreneurial self-efficacy

HEI Higher Education Institution

QLFS Quarterly Labour Force Survey

CLARIFICATION OF CONCEPTS AND TERMINOLOGIES

Entrepreneurship: The creation of new jobs and/or ventures that leads to economic growth (Hessels, 2019).

Entrepreneurial intention: A mental state in which people want to start a new company or establish a new value driver within an already existing organization (Nabi et al. 2006; Wu, 2008; Guerrero et al. 2008).

Graduate employability: The combination of 'the qualities, skills and understanding a university community agrees its students would desirably develop during their time at the institution and consequently, shape the contribution they are able to make to their profession and as a citizen (Bridgstock, 2009:32).

Entrepreneurship education: The acquisition of information and skills intention of entrepreneurship, as aspects of recognised educational programmes from the primary through to the tertiary level institutes of education (Global Entrepreneurship Monitor, 2010). Knowledge, skills, teamwork related to entrepreneurship and/or experience are gained through education programmes at educational institutions (Lee, et al., 2005).

Entrepreneurial outcomes: Recognising opportunities, risk taking, utilising entrepreneurial skills and knowledge acquired to exploit those opportunities, job creation, starting up new ventures, making profits, returns on investments and innovations.

CHAPTER 1

1.1 Introduction and background

During an Advisory Committee meeting of the Department of Entrepreneurship and Business Management at the Cape Peninsula University of Technology (CPUT) on 27 July 2018, it was discussed that entrepreneurship as a course of study was and is still intended to equip the student with the necessary skills, knowledge and abilities needed to pursue entrepreneurial activities and/or endeavours. The student representative at the meeting raised the concern that this was not the case with students, as a bigger percentage of his course mates, including those who had graduated, were more interested in completing the course for the purpose of employment instead of pursuing entrepreneurial outcomes. This view has been supported by research such as Shambare (2013), Viviers et al. (2013) and Thrikawala (2011).

In order to understand why students would rather pursue employment instead of creating commercially viable ideas and small enterprises, an investigation was needed to determine if the programme, i.e., Entrepreneurship, is sufficiently equipping the students to pursue entrepreneurial activities or if there are other factors that hamper entrepreneurial uptake among graduates of the programme. It was therefore considered beneficial to explore this issue and identify the preeminent ones, so that higher education institutions such as CPUT's Faculty of Business and Management Sciences could begin to address such factors. The significance of this indicated that, to some part, solving issues of unemployment, poverty, and inequality in South Africa is closely tied with providing effective entrepreneurship education.

CPUT is one of the few universities that offers entrepreneurship as a course in South Africa and thus, the institution was used as a case study to determine the impact that entrepreneurship as a course had on actual entrepreneurial intention, practice, and outcome.

Several studies, for example Thrikawala (2011) and Shambare (2013), have reported that those who studied entrepreneurship are less likely to take it up as a career. The reason for this, Viviers et al. (2013) argue, may be found in students favouring well-known qualifications such as Law. Kabengele (2019) also asserts that entrepreneurship compares less favourably with other dominant disciplines as a career choice among those who participated in his study. The reason for this could be found in Shambare's (2013) and Botha and Bignotti's (2016) argument that entrepreneurship education at higher education level lacked a practical component. An improvement in the curriculum of entrepreneurship education has been suggested to include a mix of vocational business practice through incubation support, and the introduction of practical entrepreneurship skills at classroom levels (Adjei et al. 2014; Mamabolo, 2017). Interestingly, the benefits of entrepreneurship education to the person and his or her community have been expressed in several studies such as Iwu (2021a), Iwu

(2021b), and Iwu et al. (2019). These benefits include the enhancement of one's chances of entrepreneurship uptake (Herrington & Kew, 2016), improvement in community development efforts (Tengeh & Nkem, 2017), improvement in standards of living (Tengeh, 2013), critical thinking, problem-solving, and learning about new ways of doing things (Herrington et al., 2017).

From the foregoing, the necessity for formal training in entrepreneurship cannot be underestimated in South Africa because of its soaring levels of youth unemployment, high inequality levels and poverty. South African Higher Education Institutions (HEIs) produce more graduates than available job opportunities. The recent Quarterly Labour Force Survey (QLFS) records an increase from the 30.8% recorded in quarter 3, to a 32.5% by the 4th quarter of 2020, which indicates the highest rate of unemployment documented in twelve years that is, since 2008 (Stats SA, 2020). The number of unemployed people stood at 7.9 million as quarter 4 of 2021. That number rose to 8 million unemployed persons by the second quarter of 2022 (Stats SA, 2022). This suggests that available jobs will not sufficiently serve products of HEIs. Consequently, graduates should seek self-employment. A common avenue for graduates to seek self-employment is entrepreneurship (Chigunta, 2017). Gwija et al. (2014) decried the low level of interest in entrepreneurship among the youth who indicated that the factors responsible for this included among others poor exposure to entrepreneurship. Can it then be argued that entrepreneurship literacy furthers knowledge of setting up a business and the boldness to take on complex business ideas and problems for society's good? According to Mazzarol (2014), higher education institutions form part of the entrepreneurial ecosystem, thus suggesting that a thriving economy is achieved partly through quality education, which in this case includes entrepreneurship education (Shambare, 2013; Botha & Bignotti, 2016; Herrington et al. 2017). The uptake of entrepreneurship has the capacity to boost the development of society and economy, which the likes of Thrikawala (2011) and Shambare (2013) argue can be enhanced through entrepreneurship education. In this respect this study becomes instructive.

1.2 Statement of the research problem

It appears that the number of employed persons in the first quarter of 2021 had remained stable at 15 million, according to statistics from the QLFS. Similarly, the number of unemployed people remained nearly steady at 7,2 million in comparison to the previous year (Stats SA, 2020). This reflects the fact that a significant proportion of employable people in South Africa are unemployed, which is one of the primary reasons for the country's need for entrepreneurship. Governments rely on entrepreneurs to grow the economy, contribute to employment creation, and promote innovation (Shambare, 2013).

Every year, tertiary institutions produce thousands of graduates, many of whom struggle to find employment (Stats SA, 2020). Several questions are raised in this regard including:

- Did the graduates obtain qualifications that are in demand in the country?
- Are organisations only interested in qualifications?
- Could organisations also be looking out for those with soft skills – collegial attitude, motivation, and good work ethic?

While the questions raised here have serious implications for the South African higher education landscape, it flags the need to support the national government's strategies for employment creation and the emphasis given to entrepreneurship. Entrepreneurship serves as the foundation for the creation of innovative business ideas and creation of jobs, which also helps in reducing unemployment, and overall, the improvement of the country's economy. Bögenhold and Klinglmair (2016) propose entrepreneurship education as the path to self-employment. This is owed to the capacity of entrepreneurship education and training to facilitate the development and growth of start-ups. Interestingly, there are differing views as to the relevance of entrepreneurship education, especially considering that:

- Those who have attained qualifications in business management and entrepreneurship seek employment on graduation;
- The throughput rate in the field of entrepreneurship is disappointing (Western Cape Youth Report, 2008);
- Despite the establishment of entrepreneurship-oriented courses and the teaching of entrepreneurship-related education as early as primary school, South Africa still faces acute youth unemployment (van Rensburg, 2010).

The above considerations suggest a need to investigate:

- Whether the current entrepreneurship education in South African higher education institutions adequately prepare the graduates to take up entrepreneurship;
- Whether the delivery of entrepreneurship education in South Africa's institutions of higher education inspires entrepreneurship students to want to pursue entrepreneurship after graduation;
- Why entrepreneurship graduates in South Africa generally prefer to seek paid employment.

Hence, the research problem revolves around exploring why entrepreneurship graduates in South Africa prefer paid employment over creating work through their entrepreneurial

practices using the entrepreneurship students at the Cape Peninsula University of Technology (CPUT) as a case study.

1.3 Significance of the study

This study could potentially offer benefits to the South African society. Firstly, the study can offer a deeper understanding of how entrepreneurship education in South African universities influences or fails to influence graduates to take up entrepreneurship as a career choice. Secondly, the findings of the study could directly influence the curriculum design of entrepreneurship courses in South African universities to address, where necessary, graduates' readiness to embrace entrepreneurship beyond the university. Thirdly, the study could offer recommendations in the form of policy revision to improve public sector/ government participation in motivating graduates in entrepreneurship to initiate entrepreneurial projects after graduation.

1.4 Research objectives

The objectives of the study are as follows:

i. To determine the extent to which entrepreneurial uptake in a South African university of technology is influenced by entrepreneurship education.

ii. To determine the factors that may influence the pursuit of an entrepreneurial venture upon graduation.

iii. To determine the extent to which the entrepreneurial intention is influenced by any of the factors.

To achieve these objectives, the following research questions will be interrogated.

1.5 Research questions

To address these objectives above, the ensuing research questions will guide this study

i. To what extent is entrepreneurial uptake influenced by entrepreneurship education?

ii. What factors may influence the decision to take up entrepreneurship as a career upon graduation?

iii. To what extent is the intention to become an entrepreneur influenced by any of the factors?

Understanding the research objectives helped in establishing whether or not entrepreneurial education as well as entrepreneurial intentions are linked, while taking into consideration, factors such as background, work experience, fears etc, can also have an impact on entrepreneurial intentions and outcomes in students.

The research objectives and questions aided in understanding whether the recipients (i.e., the students) of entrepreneurship education have the intention of becoming entrepreneurs after their studies, while also serving as a potential aid to the institutions in determining whether the current curriculum does require improvements or whether it is sufficient as it is. If it does require improvements, to then help in uncovering what those improvements should be, to aid in ensuring that more focus is placed on entrepreneurial outcomes as opposed to it being just a means and/or prerequisite for getting paid employment.

The above research objectives and research questions helped facilitate a better appreciation of the factors that stimulate entrepreneurial uptake which may necessitate possible reviews of, and/or improvement of entrepreneurship education curriculum.

1.6 Literature review

1.6.1 Overview of entrepreneurship education

The growth of regions and even nations depend on entrepreneurial endeavours. In less developed areas, entrepreneurial thinking and behaviour can assist enhance social cohesion and the circumstances of those who are unemployed or destitute. These 'entrepreneurial thinking and behaviour' can be associated with Entrepreneurship education (Lindner, 2018).

Nabi et al. (2017) examined 159 studies that were published between 2004 and 2016 to determine the effect of EE on a variety of entrepreneurial outcomes in higher education. They discovered that research on the effects of entrepreneurship education is still mostly focused on gauging immediate and arbitrary results, and it frequently grossly underrepresents the actual pedagogies under test.

In order to encourage an entrepreneurial attitude across all educational levels, entrepreneurship education (EE) has become more widely accepted during the past ten years as a school-wide strategy.

Entrepreneurship education can be described as the process of equipping individuals possessing the capacity to identify and act on business opportunities (Kim & Park, 2019). As far back as 1995, 90% of South Africa's labour force was made up of black South Africans with only 4% taking up an entrepreneurial initiative (BMR, 1995). Crime, corruption, mismanagement and unemployment are among several issues the youth face in South Africa (North, 2002). Forecasting the unemployment rate is done by estimating the number of jobless persons as a percentage of the labour force, which includes both employed and unemployed people. Those who report being unemployed, being available for work, and having actively sought employment in the previous four weeks are considered to be unemployed. Some

people lose motivation and quit seeking for job when unemployment is high, which causes them to be excluded from the labour force (OECD, 2023).

Gouws (1997) estimated that by 2010, over 8 million people would be without jobs in South Africa. South Africa's unemployment rate is predicted by Trading Economics global macro models and analyst forecasts to be 32.80 percent by the end of this 2022/2023. Econometric models predict that the South Africa Unemployment Rate will eventually tend toward 34.00 percent in 2024 and 35.00 percent in 2025 (Trading Economics, 2022; Stats SA, 2022). Isaacs et al. (2007) in their findings identify factors such as inadequate resources and poorly trained instructors/educators as factors preventing proper implementation of entrepreneurship education in different schools. Many South Africans blame the South African school system for the country's lack of entrepreneurial ability (Mare & Crous, 1995; Herbenst & Mills, 2012). Compared to countries like Brazil, China, and India, South Africa experiences a low total entrepreneurial activity (Von Broembsen et al., 2005). Fatoki and Garwe (2010) attest that in South Africa, entrepreneurship education (or a lack of it) is still one of the most important constraints restricting economic progress.

There is, therefore, a pressing need for the youth to be taught and trained in entrepreneurship (North, 2002). Hanekom (1995) also stress that the goal to inspire and equip as many individuals as possible to unlock the hitherto suppressed human potential of every South African will be furthered through entrepreneurship education. The South African government must establish an environment that fosters economic growth and job creation, since the formal as well as public sectors are increasingly unable to occupy the expanding number of job seekers (Kew, 2012).

In order to contribute to the growth as well as the development of the country and also that of SMEs in South Africa entrepreneurship education was deemed necessary to be introduced to schools. Entrepreneurship then became one of the expected outcomes of Grades R to 12 (Isaacs et al., 2007).

The government of South Africa has explored a number of initiatives to integrate entrepreneurship into the school curriculum since 1990 (North, 2002). To begin, it was necessary to determine whether elementary school learners were capable of understanding economic concepts and activities, and if they did, to what extent (Davies, 1991). This, among other topics, was addressed by a 1991 committee created by the then former Superintendent-General for the former Department of Education and Culture in order to study the viability of adding entrepreneurship to the possible future curriculum (North, 2002).

A study was then undertaken in primary schools in the Pretoria region by three curriculum researchers in the subject of economic sciences (North, 2002). The pilot core curriculum was

introduced and tested in six schools in 1993. As needed, teachers were provided with assistance and additional training (North, 2002).

At the end of 1993, amendments were made to the curriculum after careful evaluations. The proposal was subsequently polished and presented to the then Department of National Education as a working document for the next government's curriculum revision process (North, 2002).

Entrepreneurship education is a young field that is becoming increasingly important in the global corporate world and therefore, gives rise to a demand for courses in entrepreneurship for students interested in owning their own businesses (Jesselyn et al., 2006). A growing number of faculties are needed to give courses, run programmes and undertake research in this area as a result of the increase in demand for entrepreneurship education (Jesselyn et al., 2006).

Entrepreneurship education in universities should include courses in leadership, the development of new products, creative thinking, negotiation and exposure to technical innovations (Pittaway & Cope, 2007). A more action-oriented approach is needed in entrepreneurship education (Tshikovhi & Mvula, 2014). Hence, colleges and universities should place a greater emphasis on learning by doing than traditional classroom learning. Universities need to have prepared the students for the job market as soon as they graduate. In the context of entrepreneurship education in South Africa however, it seems like this has not been the case (Tshikovhi & Mvula, 2014).

1.6.2 Entrepreneurship defined

Barot (2015) defines entrepreneurship in two ways. The first as opportunity-based entrepreneurship where an individual (entrepreneur) identifies a business opportunity and decides to exploit it. The second, necessity-based entrepreneurship, is where an individual is compelled to make a living because he/she has no other available avenue of earning. Since the 2000s, several scholars have attempted to reconceptualise the term entrepreneurship. Stevenson (2000) for instance, counsels that entrepreneurship should be defined as a process-driven activity. Other scholars such as Iversen et al. (2008), and Kobia and Sikalieh (2010) are of the view that to understand entrepreneurship would require an analysis of the context in which it is defined. Singh (2001) suggests that the ability to recognise opportunities is a critical factor in assessing and understanding the notion of entrepreneurship. A common feature among the various characterizations of entrepreneurship is that it represents the processes concerned with creating new ventures by an individual for the purpose of making profit by taking risks. Also, entrepreneurship cannot be limited to the act of starting a new business. This is because acquiring an already existing business is also considered an

entrepreneurial endeavour. If an individual acquires an already existing business, he/she is still considered an entrepreneur or 'business owner' (another broad definition of an entrepreneur) which now will inadvertently contradict the popular opinion that an entrepreneur is a person who has created something new or innovative.

This makes it difficult to settle on one definition as the true definition of entrepreneurship. Perhaps, this is the reason for disputes and/or debates over the definition of entrepreneurship. Many of these debates were started by scholars attempting to differentiate entrepreneurship as a discipline from the running of small businesses (Aldrich, 2010).

While scholars believe that entrepreneurs are innovators who create something new (for example, Kanter (1983:395) says, 'on the association of innovation with internal entrepreneurs, it is common among experts on Research and Development, to use the term "entrepreneur" to describe people behind an innovation, those who pick up an idea and drive it toward support and use within an organisation'), others believe that even the skill of being able to recognise an opportunity is the core of entrepreneurship (Kirzner, 1997; Singh, 2001). This suggests that opportunity recognition also applies to acquiring an existing business and not solely to initiate a new business or creating an innovative product or service.

A good definition of entrepreneurship would subsume elements of all the definitions mentioned above because each of those definitions offers important consideration to the broader understanding of the field of entrepreneurship.

1.6.3 Entrepreneurship education

Teaching and learning of entrepreneurship are perceived as the training of students with the goal of transferring skills, knowledge, and technical expertise needed for the students to graduate and take up entrepreneurship. Like the term 'entrepreneurship', there has been no universally accepted definition of entrepreneurship education. Many researchers have a wide variety of definitions for entrepreneurship education. For some, it is seen as the learning processes employed in the creation or the development of new ventures (Ravasi & Turati, 2005).

There is consensus that business education and entrepreneurship education have slight but significant differences. That is, business education and entrepreneurship education are not the same thing.

While business education aims to equip students (recipients of business education) to work for existing ventures (Grey, 2002), entrepreneurship education focuses on equipping them for starting or creating new ventures. This is one of the areas still being debated amongst researchers. It is linked to the very definition of entrepreneurship itself, as many believe that

a definition of entrepreneurship which does not posit entrepreneurship as solely innovative is in fact a definition of business management as a field, and not entrepreneurship. Others believe that business education and entrepreneurship education are one and the same.

There have been debates as to whether an entrepreneur is born with innate entrepreneurial skills as opposed to acquiring entrepreneurial skills through formal education (Fiet, 2001). Some believe knowledge and skills are innate and an individual cannot simply learn them (Fiet, 2001), while others such as Gorman et al. (1997) are of the opinion that entrepreneurship can really be taught and also be promoted in a community. Furthermore, formal courses in entrepreneurship have been cited to influence motivation and desire for entrepreneurship in students (Badulescu et al. 2014; Linan 2004; Morris et al.,1994).

More recently, the availability of and access to the internet and other information communication technology tools have increased the possibility for teaching and learning of entrepreneurship remotely and allowed for increased participation in this, compared to the past (Vorbach et al., 2019). Several tertiary institutions now offer entrepreneurship as a course and several business schools across the world have also integrated entrepreneurship education into their postgraduate and MBA courses and programs (Pizarro et al., 2017).

1.6.3.1 Teaching of entrepreneurship globally and locally

It has already been acknowledged that entrepreneurship contributes to the creation of jobs (employment) and subsequently economic growth. Therefore, the main purpose of entrepreneurship education in South Africa would be to create and develop credible entrepreneurs who would help to achieve these goals i.e., innovation, creation of jobs, as well as economic growth, etc.

Studies within the United States as well as the United Kingdom have shown that entrepreneurship is integrated, as a subject, into other courses of study as opposed to its being taught as a separate, independent course, in many of the educational institutions there (Nieuwenhuizen et al., 2016).

A South African scholar, Professor Thandwa Mthembu, while speaking with University World News on the approach to teaching entrepreneurship at higher institution level, suggested that the approach to teaching entrepreneurship should be ‘student-initiated’ rather than ‘student-centred’, and that the focus should be more practical rather than theoretical, instead of the other way around. By student-centred, the scholar means an approach where the lecturers have a pre-prepared plan, resources and materials that they implement, which makes have the students have a reactive approach to learning, as opposed to being flexible enough in allowing a student-initiated approach which develops the student’s initiative and drive to

actively pursue his or her aspirations of creating useful goods and services for society (Dell, 2016).

Two approaches emerge when discussing how entrepreneurship education is taught within the South African context. The first is the Entrepreneurial Performance (E/P) Model which focuses on the skills, experience and abilities possessed by the facilitator of entrepreneurship education; the business skills and knowledge possessed; entrepreneurial skills; and business plan utilisation and motivation (Ramchander, 2019). The other approach is the 5C's Framework proposed by Morris and Kuratko (2014), which consists of conceptualisation, connection, character, convictions and competences, with 'conceptualisation' being the most critical of these. Both approaches/models point toward how entrepreneurship education is being delivered across South African universities, with the 5C's Framework being 'used to ascertain the structure and content of entrepreneurship education' (Ramchander, 2019:5) and subsequently, using the E/P Model 'to reconceptualise how entrepreneurship education could be structured and taught' (Ramchander, 2019:5).

1.6.4 Entrepreneurial education and graduate employability

According to Grant (2010), a graduate can be loosely described as an individual who has managed to complete a course of study and also acquired adequate skills, knowledge and capabilities that can enable him/her function in an organisation in the labour market. A graduate is a 'job literate, technically numerate, professionally skilled, communicatively competent and ethical sound' individual who has been prepared for employment or the workplace (Grant, 2010:7). Broadly speaking, this refers to 'graduate attributes', being qualities and attributes which an ideal graduate in any discipline needs to have acquired before graduation to make a meaningful impact at work and in the society at large (Oliver & Jorre de St Jorre, 2018:821).

Employers have often complained about a gap between the skills graduates learnt at tertiary institutions and the required and/or relevant skills they need at the workplace (Links, 2010; Schade & Amunkete, 2011 & National Council for Higher Education, 2011). A gap exists between the output of graduates and the requirements and expectations of employers (Moleke, 2010). This gives birth to the accepted concept that graduates require more than just the skills they have acquired in their specific disciplines at tertiary level. The main difficulty that unemployed graduates face is that of experience as well as a lack of the necessary skills set needed for a specific job (Osoian et al., 2010).

Several employers are of the opinion that university graduates lack the necessary skills/ attributes required at the workplace (McMurray, 2016). Owing to the ever-changing workplace and the changes in the economy, employers expect more from university graduates (Abbasi

et al., 2018) and as a result, it can be argued that this expectation of graduate's accounts for why unemployment among graduates continues to soar. The continued rise of graduate unemployment can therefore be attributed to the fact that employers might not trust the skills a graduate has obtained from his tertiary education and most of the time will resort to employing a well-rounded and more experienced individual for a job (Iwu et al., 2018).

Employability skills can either be subject-specific skills and/or (a combination of) transferable skills (Oliver & Jorre de St Jorre, 2018:821). Subject-specific skills are those that are closely-related to the field of study that the student has specialised in. For example, entrepreneurship graduates are expected to have acquired numeracy skills (finance), business plan utilisation, computer literacy skills, stress management, etc. (Chetty, 2012).

Transferable skills are not usually discipline-specific but should be skills that are employable to any field, industry or organisation. Skills like problem solving, team work, communication, etc. Transferable skills are skills that give the student/graduate the capability to perform duties 'based more on attitude and behaviour' (Chetty. 2012: 10).

The concerns by employers of labour that graduates lack the skills needed for the workplace have led to South African institutions of higher learning to assess, recognise and subsequently implement these needed skills and attributes into the different programmes across the universities (Council on Higher Education, 2013).

1.6.5 Entrepreneurial education and entrepreneurship intention

One way to assess the importance of entrepreneurship education is to pay particular attention to entrepreneurial intention and the circumstances that impact this attitude and/or behaviour (Ferreira et al., 2017). Entrepreneurship intention is a mental construct that governs the planning, development, implementation, and evaluation of a new venture idea (Gupta and Ghave 2007; Boyd and Vozikis, 1994).

Bird (1988) described entrepreneurial intention as an awareness or state of mind which pushes an individual towards attaining self-employment in contrast with settling for potential employment in the labour force or an already existing organisation.

Loosely described, entrepreneurial intention can be the will or the pursuit of self-reliance or self-employment by an individual. This is backed up with Thompson's (2009) assertion that it is the desire of an individual to become a business owner or the desire of an individual to be self-employed.

Iwu et al. (2016) found that a large percentage of students from a university of technology perceived that their motivation for pursuing entrepreneurship, besides being self-employed, was closely related to other factors like 'personal fulfilment', 'taking up a challenge' and

‘making money’, and they posited that the major obstacle to the actualisation of their desire and/or ‘intention’ was the lack of support, ‘unfavourable economic climate’ and basically, a ‘lack of funding’ (Iwu et al., 2016).

Syed et al. (2020) suggest that an individual’s innovativeness brings about the favourable association between the individual’s enthusiasm or passion and the individual’s entrepreneurial goals.

The research proposes that curiosity, through innovativeness, moderates the inverse impact of a person’s entrepreneurial passion on the individual’s entrepreneurial intentions or aspirations (Syed et al., 2020).

1.6.5.1 Determinants of entrepreneurship intention

1.6.5.1.1 Entrepreneurship education curriculum

It has been established earlier in this study that a possible antidote to the ever-growing rate of unemployment ravaging South Africa is the uptake of entrepreneurship. However, as several studies have pointed out (for example, Iwu et al. 2020; Zhang et al. 2019; Byabashaija & Katono, 2011) before an individual will embrace entrepreneurship, there has to be intention. This intention is influenced by several factors such as the adequacy and relevance of the entrepreneurship curriculum, including access to employer talks, workshops and career fairs; and also, the competence of the team of lecturers tasked with the delivery of the entrepreneurship education curriculum.

1.6.5.1.2 Social values

Extending the intention argument of several researchers is the link to social values (Kalitanyi & Visser 2016). Kalitanyi and Visser (2016) characterize social value in this regard to suggest the exposure a student gets when exposed to an entrepreneurial family. Essentially, such exposure as well as students’ entrepreneurial intentions are influenced by socioeconomic factors (Kalitanyi & Bbenkele, 2017).

1.6.5.1.3 Fear of failure versus hope of success

Other possible determinants of entrepreneurial intentions are the concepts of ‘fear of failure’ and ‘hope of success’. The balance of these two concepts is what results in the optimum motivation to become an entrepreneur, as opposed to the belief that a higher ‘hope of success’ and lower ‘fear of failure’ is the ideal equation often seen in the literature (Warren, 2020).

1.6.5.1.4 Family financial status

Entrepreneurship education influences entrepreneurial intention. A family’s financial status will often determine if the individual will take up entrepreneurship and possibly pursue entrepreneurship education. Therefore, family financial status has an effect on

entrepreneurship education uptake, which in turn, is a strong motivation/encouragement for entrepreneurial intentions amongst students (Gujrati et al., 2019).

1.6.5.1.5 Entrepreneurial self-efficacy and entrepreneurial passion

Entrepreneurial self-efficacy (ESE) refers to an individual's conscious belief in his/her own abilities/capabilities and skills to complete a specific task (Bandura, 1986). Individuals with low self-efficacy may avoid specific situations, and this avoidance behaviour could result in the individual's inability to face fears or develop competence and vice versa, i.e. a high self-efficacy will have a contrasting effect (Bandura, 1977).

According to research, entrepreneurial self-efficacy has an influence on, or is a determinant of, entrepreneurial intentions (Fietze & Boyd, 2017). Entrepreneurial passion on the other hand has been defined as 'consciously accessible, intense positive feelings experienced by engagement in entrepreneurial activities associated with the roles that are meaningful and salient to the self-identity of the entrepreneur' (Cardon et al., 2009:517). Li and Wu (2019) argue that entrepreneurial self-efficacy as well entrepreneurial passion serve as causal factors to elucidate the effects which entrepreneurial education has on entrepreneurial intentions. The study arrived at this by combining the theory of self-regulation as well as the theory of social cognition.

The predicted beneficial association between entrepreneurial passion as well as entrepreneurial intention has been examined by different researchers (Fellnhofer, 2017; Linan & Fayolle, 2015; Syed et al., 2020).

Entrepreneurship education, with higher team cooperation within the HEI, will increase entrepreneurial self-efficacy as well as entrepreneurial passion. This will greatly influence entrepreneurial intention (Li & Wu, 2019).

1.6.5.1.6 Student work experience

Students who combine work and study are becoming more common as new shifts in labour and consumption conditions in the services of higher education emerge (Chukhray et al., 2021). Chukhray et al. (2021) analysed the impact that work experience has on the entrepreneurial intentions of such students (i.e. students who combine work with study) based on this trend, i.e., the growing trend in students working and studying.

While a lack of work experience will not prevent some students from developing entrepreneurial intentions, data gathered from the study show that students who worked before starting university have a higher likelihood of combining their university education with recruitment/work in social production. Such students' confidence in their entrepreneurial ability

grows as a result of this type of work experience. Their plans to start their own firms also improve (Chukhray et al., 2021).

1.7 Definition of keywords and terminologies

Entrepreneurship: The creation of new jobs and/or ventures that lead to economic growth (Hessels, 2019).

Entrepreneurial intention: A mental state in which people want to start a new company or establish a new value driver within an already existing organization (Nabi et al. 2006; Wu, 2008; Guerrero et al. 2008).

Graduate employability: The combination of 'the qualities, skills and understanding a university community agrees its students would desirably develop during their time at the institution and consequently, shape the contribution they are able to make to their profession and as a citizen (Bridgstock, 2009:32).

Entrepreneurship education: The acquisition of information and skills intention of entrepreneurship, as aspects of recognised educational programmes from the primary through to the tertiary level institutes of education (Global Entrepreneurship Monitor, 2010). Knowledge, skills, teamwork related to entrepreneurship and/or experience are gained through education programmes at educational institutions (Lee, et al., 2005).

Entrepreneurial outcomes: Recognising opportunities, risk taking, utilising entrepreneurial skills and knowledge acquired to exploit those opportunities, job creation, starting up new ventures, making profits, returns on investments and innovations.

1.8 Research paradigm

Researchers have traditionally used the positivist and constructivist paradigms as two key methodologies to scientifically study challenges in life and those of the social sciences (Asghar, 2013).

According to Dudovskiy (2022), positivism is a philosophy that holds that only 'fact based' information obtained by observing (the senses), notably measurement, is reliable. As a result, the researcher's function is confined to data gathering and impartial evaluation (Dudovskiy, 2022).

Reality, according to the positivist perspective, is objective and quantifiable. A study following a positivist approach is based on careful observation of quantifiable data. Quantitative methodologies such as experimental as well as semi-experimental research, correlational research, and causal comparative research are common research designs. It uses data-

collecting instruments such as questionnaires, observations, experiments and tests. Positivists believe that the observer is distinct and/or separate from the entities being observed (Johnson et al., 2004).

Constructivist or interpretivist paradigms on the other hand see reality as being a social construct and argue that there are several realities i.e. there are many different realities, and temporal- and context-neutral generalisations are neither desired nor achievable (Johnson et al., 2004). People's values have an impact on how they think, and behave, as well as on their perception of what is important to them. A constructivist/ interpretivist study generally employs qualitative research methods (Chilisa & Kawulich, 2012).

In this research, the pragmatic paradigm will be utilised as it endorses the pursuit of subjective and objective meaning and helps to offer important insights into a phenomenon (Sekaran & Bougie, 2016; Leavy, 2017; Kaushik & Walsh, 2019).

The term mixed method is used to describe research where quantitative as well as qualitative data are combined during a study.

1.9 Research methodology

The study's aim was to ascertain the degree to which entrepreneurial uptake is influenced by entrepreneurship education and also to determine the factors which may impact the pursuit of an entrepreneurial venture upon graduation, while at the same time determining the extent to which any of these factors influences the intention of the student to go the entrepreneurial route. To be able to analyse these, the research method that the study has employed is a mixed method approach involving qualitative as well as quantitative methods.

Quantitative methods such as surveys used questionnaires to gather data from the third- and fourth-year students of entrepreneurship at the selected university in South Africa. The choice of surveys/questionnaire is influenced by its cost effectiveness as well as the ease with which data can be collected while maintaining Covid-19 protocols. Respondents filled out these questionnaires without having to contact the researcher. Another was the time saved while reaching a large group of students who were under no pressure to express their true feelings, compared to other forms of methods such as interviews and study groups. For this purpose, the researcher set up an online survey with the permission of the Department to facilitate student access.

Owing to the need to obtain deeper insight into the questions raised in this study, the researcher also made use of interviews. In this regard, and, due to the Covid-19 pandemic, the researcher used telephonic interviews to attain a first-hand view on the subject matter from participants.

Mixed method research provides a broader point of view and a deeper understanding of the research problem (Mahmood, 2013) as it reveals a true reflection of the participant's experiences based on their perspective (Shekelle et al., 2011).

The rationale for using a mixed methods research design is to keep the research as accurate as possible. While questionnaires can be used to reach a higher number of respondents and relatively less expensive, it limits the openness of the feedback from the respondents (Choudhury, 2021). Choudhury notes that respondents have to follow a sequence of questions and thus might not be able to express themselves as much as they would if they were being interviewed. The non-response rate for questionnaires also is another factor taken into consideration. The researcher also believes that using both methods would compensate for the shortcomings of a single method.

By engaging a smaller, select group in interviews, the respondents can give their feedback in real time, their non-response rate is low and they can express themselves the way they choose (Denzin, 1989).

From the quantitative perspective, questionnaires were utilised to gather data from the third- and fourth-year students of entrepreneurship at the selected university of technology.

1.10 Research Design

The research design was a mixed methods research design to help determine the extent to which the entrepreneurship education the students have received influences their decision for entrepreneurial uptake as well as other factors that might influence such decision.

Mixed research design incorporates both philosophical assumptions as well as methodologies of investigation. As a technique, it involves a philosophical hypothesis which guides the collection of data, analysis, as well as the use of both quantitative and qualitative data in a sole or single investigation or a sequence of investigations. The core notion is that by incorporating these two methods, researchers can gain a better understanding of research problems than if they used only one method (Creswell, 2007).

As has been stated earlier, this study utilised a virtual (videotelephony) and/or email interview. Qualitative researchers who used virtual interviews to collect data discovered that the advantages of virtual interview scheduling improved access to participants or respondents and it also encouraged an increased involvement of working people or tech-savvy people (Vandermause, 2017).

1.11 Demarcation/delimitation of study

The study was limited to the third- and fourth-year students studying entrepreneurship at CPUT. The targeted size would be 100 students via questionnaires and 20 students for

interviews. Through the findings, recommendations would then be made as to the necessary improvements to the entrepreneurship course in further influencing more students in taking up entrepreneurship.

1.12 Delineation of the study

This study focused on the impact entrepreneurship education has on third- and fourth-year students of the Cape Peninsula University of Technology (CPUT) who were working on completing their entrepreneurship education.

1.13 Research population

The persons who qualify to be included in the sample of a certain study are referred to as the target population in research studies with human participants (Sekaran & Bougie, 2013).

The population the sample was drawn from were the third- and fourth-year students who intended to complete their National Diplomas and/or BTech/Advanced Diploma in Entrepreneurship. The choice of focus on the third- and fourth-year students is due to the fact that these 2 groups of students are in the final stages of their entrepreneurship education and are closer to graduation as opposed to those in their formative first and second years. The population was exclusively entrepreneurship students; therefore, non-business students were excluded. The study also excluded students outside the specified geographic area i.e., in the Western Cape Province of South Africa, specifically Cape Town.

The entire population was based on the two categories mentioned above i.e. third- and fourth-year students. The entire population of third-year students was (as at the time the study was carried out), 120 while the entire population of fourth year students was 53, which brought the total population to 173. It was from this population that the sample size was drawn.

There are two types of sampling methods, namely probability and non-probability sampling (Zikmund et al., 2013). Each element in a sampling frame has a known and nonzero chance of being chosen in a probability sample, and elements are chosen using random selection (Turner, 2020). To the contrary, in a non-probability sample, the probability of selection is neither known or equal for all members of the population (Turner, 2020). Probability sampling was utilised in this study. This was to ensure that each person in the sample had an equal probability of being selected. The population was a large one, therefore, due to the constraints of time and financial resources, the entire population was not included in the study.

Quantitative research typically favours larger sample sizes as it not only increases reliability but also allows for the application of more advanced statistics (Cohen et al., 2017). It has been suggested that thirty is the minimal number of cases that should be used if the researchers plan to apply statistical analysis to their data (Cohen et al., 2017).

It is important to note that when employing the simple random method of sampling, the sample size required to accurately indicate the value of the population of a variable is determined by the population size as well as the degree of heterogeneity (Bailey, 1994). As a general rule, the bigger the sample, the more likely it is to be representative of the population as a whole (Cohen et al., 2017).

Sample size is determined by factoring into the equation the population size and margins of error, which are stated as confidence level as well as confidence interval (Cohen et al., 2017). A measure of how certain one may be that the responses fall inside a specified variance range is known as the confidence level, for instance, 95% or 99% of the time (Cohen et al., 2017). Inversely, the degree of variation or range of variation that one wishes to ensure is what is called the confidence interval, also expressed as the margin of error (Cohen et al., 2017). The sample size increases the confidence level. The sample size also increases with lower confidence interval (Cohen et al., 2017)

In determining sample size, there will be a difference in sizes for, for instance, categorical data (examples like level of education, sex and so on) versus continuous variables (such as marks of a written test/exam, money in the bank, and so on). Larger samples are needed for categorical data rather than continuous data (Bartlett et al., 2001).

For this study's purpose, categorical data was utilised in calculating the sample size as the population was split into two sub-groups; third year and fourth year students respectively.

Not just the size of the population, but also the desired margins of error must be considered t when calculating sample size for a probability sample (Cohen et al., 2017). According to Bartlett et al. (2001:45), a 5% error margin is typical for categorical data, while a 3% margin of error is typical for continuous data.

Therefore, this study used a 95% confidence level as well as a 5% error margin to determine the sample size.

The figures used to arrive at the sample size are shown below;

A. Sub-group 1 (fourth year students)

Total population = 53

Confidence level = 95%

Margin of error = 5%

Sample size = 47 participants

B. Sub-group 2 (third year students)

Total population = 120

Confidence level = 95%

Margin of error = 5%

Sample size = 92 participants

Total Sample size = 139 (rounded up to 140).

Please note that due to circumstances explained further in the study, the eventual sample size became 136 participants/students. See chapter 3 for a detailed description.

The figure illustrated below depicts the formula for calculating sample size (Note: for more accuracy, a sample size calculator was used from the website; https://www.surveymonkey.com/mp/sample-size-calculator/).

Figure 1 Sample Size

$$\text{Sample size} = \frac{\frac{z^2 \times p\,(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p\,(1-p)}{e^2 N}\right)}$$

Where e = error margin (% in decimals) and N = size of the population. z = z-score.

Note: the figure above shows the formula used in calculating sample size, using the population, confidence level as well as error margin (Survey Monkey, 2021).

1.14 Data collection instruments

As stated earlier, the researcher made use of a mixed method of data collection. Thus, the research utilised both interviews and questionnaires to collect data.

1.14.1 Interviews

Face-to-face interviews or personal interviews may be the most effective technique to obtain data of high quality (Fox, et al., 2009). However, the study made use of telephonic interviews due to the global Covid-19 pandemic. This helped reduce the risk of exposing respondents to infection as opposed to conducting a face-to-face interview.

The interviews were semi-structured using an interview schedule. This allowed the respondents to give their own perspectives and interpretations of the world, creating a space for the respondent to include the points they felt were relevant and/or important (Bryman, 2012). The interviews were conducted in English as the population was made up of undergraduates of CPUT, an institution that delivers its courses in English and therefore, the respondents would be comfortable with the use of English as a medium.

The interviews were over the phone and were therefore not recorded. Notes were taken as respondents answered the questions, while their consent was sought on the possible recordings of the interviews.

1.14.2 Questionnaires

Questionnaires can be described as series or sets of questions which are posed to gather statistically meaningful data on a specific topic. ‘When properly conducted and responsibly administered, questionnaires become a vital instrument by which statements can be made about specific groups or people or entire populations’ (Trueman, 2015:1).

Questionnaires could be personally distributed by the researcher to the target respondents or population due to the Covid-19 protocols, amongst which was social distancing. Two approaches were used for the distribution of the questionnaire. The first was to set up an online survey while the other was to request distribution through the Department of Entrepreneurship and Business Management. For both approaches, the researcher humbly requested the department to assist with reaching the target audience. The questionnaires were open-ended and closed-ended to investigate and determine the results that elucidated the research problem.

The concept of rating scales is a manner in which degrees of reaction, intensity of response as well as the shift away from binary questions and rankings have all been regulated (Cohen

et al., 2017). There are several rating scales which include the semantic differential scales, Thurstone scales, Likert scales and Guttman scaling.

For the purpose of this research, the Likert scale was utilised in order to gauge the extent to which respondents agreed or disagreed with the statements and items of the questionnaire.

The Likert scale is a range of responses to a particular question or phrase which are often employed to measure attitude (Cohen et al., 2017).

The questionnaire items were derived from the research questionnaires as well as from the items in the literature review which tied into the research questions and research objective.

1.15 Pilot testing

In order to assess the viability of the questionnaires and to determine whether the questionnaires would generate an adequate response rate, the questionnaire was pilot-tested. The department's administrator, through the supervisors, agreed to assist with pre-testing the questionnaire. This gave room to the researcher to correct and improve the questionnaires and optimize their relevance to the study goals.

1.16 Data collection/fieldwork

With permission from the Faculty of Business and Management Sciences at large, and the Department of Entrepreneurship and Business Management in particular, the questionnaires were administered through Google Forms, with the help of the department to the third- and fourth-year students of Entrepreneurship. The respondents were asked to spare 10-15 minutes of their time to fill in the questionnaires.

Data for the interview was also collected through telephonic interviews. In the context of research, a telephonic interview is 'a strategy for obtaining data which allows interpersonal communication without a face-to-face meeting' (Carr and Worth, 2001).

Payne et al. (2004) suggest that this method could be a good technique to reach out to a large group of people, or those who do not want to fill out a questionnaire face to face.

1.17 Data coding and analysis

According to Bryman (2012), because qualitative interviews tend to generate vast amounts of data which can make analysis difficult, techniques have been recommended for breaking down data by constructing indexes that can be used to code.

Interviews were transcribed into text. Then the transcribed text was studied for similar responses by the interviewees which were relevant to the theoretical concept that led to the coding of the data. Coding early helps in understanding the data and theoretical sampling (Bryman, 2012: 576). Marginal notes were made and keywords from interviews were used to

make themes in data. After that, coding was done by creating a word index and interpreting and matching data to theory (Bryman, 2012:577).

Codes were examined for duplication and paucity in order to ensure they was narrowed down to relevant ones only. Thematic data analysis was employed, which is a process for deriving meaning as well as concepts from data via recognising, evaluating, recording themes as well as patterns.

Thematic analysis is the simplest way to organise and describe a collection of data (Javadi & Zarea, 2011). The researcher has the discretion on what to include as a theme and what to leave out due to the flexible nature of thematic analysis. Because it helps to reflect and clarify reality, it is said to be the most dependable form of analysis utilised in interpretative research. As a result, themes are easily more identifiable (Ely, 1997).

The researcher also made use of IBM's SPSS software to analyse the data gathered. It is a program designed to assist users to organise and analyse non-numerical or non-linear data. It enables users to categorize, sort, and organize data; investigate data relationships; and integrate analysis with linking, shape, searching, and modelling.

The SPSS software was used to analyse the questionnaires that had been collected and saved individually on the system. The respondents were then added to the software one after the other, after which a node was created, for example, gender (male or female). Within the gender node, the researcher then created two other nodes which were coded into the numerical forms '1' and '2' respectively, where 1 represented 'male' and 2 represented 'female'. After this, the researcher then coded by putting the data/information into their respective nodes. For instance, 'male' or 'female' went under the 'gender' nodes.

The data provided in the questionnaires were first collated. The coding system was then carefully designed; open questions were collected into smaller sets of categories and then coded. Closed questions such as those collated using a numerical scale were easily coded using the scale as a code, for example, a scale of 1-5 in which the respondents were asked to choose between 1 and 5 to express their level of agreement or dissatisfaction with a topic. After this was done, then the data was analysed using the SPSS software, as described above.

1.18 Ethical considerations

As suggested by Arifin (2018), in all research studies, the protection of human participants through the administration of suitable ethical norms and principles is critical.

1.18.1 Seeking informed consent

In order to ensure that subjects' participation in a study is entirely voluntary, consent must be obtained by informing subjects of their rights, the purpose of the study, the procedures to be followed, any possible risks and benefits of participation, the anticipated length of the study, the extent of confidentiality of personal identification and demographic data (Nijhawan et al., 2013). Consent should be freely granted (voluntarily), respondents should be made aware of what is expected from them, while all parties involved should be qualified to give consent (Arifin, 2018). Having taken this into consideration, respondents were informed of their choice in accepting or declining to participate and this was done after adequately explaining to them what the study was about. A request for participants to consent to the study was contained in the questionnaire. Before each interview, the request was also repeated. Essentially, consent was sought from each correspondent who were made to understand the reason for the study and also informed that their participation was purely voluntary.

1.18.2 Anonymity

Anonymity is ‘the degree to which the identity of a message source is unknown and unspecified; thus, the less knowledge one has about the source and the harder it is to specify who the source among possible options, the more anonymity exists’ (Scott, 2005:243)

Respondents were guaranteed their anonymity and were also assured of the confidentiality of their personal details. Their privacy was managed during and after the surveys. In ensuring this, personal details of participants were required. The details the researcher sought included gender, age, average household income, work experience and level of study of the participant.

Interviews were conducted in an uncompromising environment that might make respondents uncomfortable, as these interviews were over the phone. Therefore, respondents chose to do the interviews in the safety and comfort of their homes or residences. Their rights were respected and protected at all times.

Interviews and questionnaires were stored on a secure computer system with high-level security.

1.19 Limitations of the research

The study focused on the third- and fourth-year students and as such might not have been representative enough to justify a generalisation.

As a result of the nature in which data were collected, i.e., via the internet (as a result of Covid-19), it was difficult to get more students to commit and participate in the survey as opposed to when data is collected physically, where the student has a time period to complete the questionnaires and hand it back to the researcher. Unless there is an incentive, there was the

concern that students chose not to spend the time they could otherwise use for entertainment online, on participating in the survey. This also made it difficult to collect all the data within a specified timeline, which thus made the time period for the collection of data longer than anticipated.

There was also the concern that the respondents used the 'Neither Agree nor Disagree' category of the Likert type questionnaire as a way of avoiding answering questions they did not understand or know how to respond to. This may have limited the quality of responses generated.

1.20 Research outline/framework

Chapter 1: Introduction/Overview of the study

Chapter 1 provides the reader with information on the background of the problem, problem statement, the purpose the study aims to achieve, the research questions, definition of key concepts, and the statement of aims and objectives, the research methods, research instruments, scope of the study, ethics and limitation of the study.

Chapter 2: Literature review

The second chapter presents the literature review which contains information from similar studies that have been conducted to research similar issues, and their limitations, implications, gaps as well as their results and conclusions reached.

Chapter 3: Methodology

This chapter reiterates the purpose of the study and then provides information on the research methods (research framework), research design used, data collection, sampling and then the data analysis.

Chapter 4: Findings

Findings are presented in a logical order, in the order first of quantitative findings and then of qualitative findings as a result of using a mixed methodology. The chapter concludes with a summary of the findings.

Chapter 5: Summary, conclusion, discussion and recommendations

This chapter is used to summarise and review the entire study. It explains, in summary, the purpose and significance of the study, the literature review, methodology and findings. This is followed by the conclusions and/or suggestions based on the findings that the data presented, stating the most important aspects of the findings/results.

Recommendations will be provided for the institution (CPUT) on what can be improved based on the findings of the study.

CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

Entrepreneurship, entrepreneurship education, and intentions are concepts that have been debated as crucial to improving individual knowledge, innovation, and skills in the education sector and other key areas of a country's economy (Naude, 2015). In this chapter, the concepts of entrepreneurship, entrepreneurship education, and entrepreneurship intentions are discussed in relation to the subject matter of this study, which is to examine the impact of entrepreneurship education on actual entrepreneurial intentions, practices, and outcomes among students. Additionally, this chapter covers graduate employability, the dangers of high unemployment in an economy, and why paid employment is more attractive than self-employment. A general overview of the subject matter will be underpinned through the divergent views of existing authors' studies to provide a basis for this study, proffer answers to the research, and give this study a robust platform.

2.2 Concept of entrepreneurship

Entrepreneurship is a broad concept that has gained much attention among authors because of its importance and usage in recent times. For instance, Thurik (2015) argue that entrepreneurship is simply the willingness to start up a new business through innovative ideas to make a profit, create new businesses, and enhance a strong and competitive business environment. Arguing from the same frame of thought, Prenzel et al. (2018) note that entrepreneurship is the process involved in initiating a new business with the willingness to expand such business through the creation of new products or inventing something new that will cause a change in the life of the individual and society, and further improve the economy through advancing and continuous means of manufacturing and marketing. Thus, entrepreneurship is built on the basis of individual strength, vision, resources, intellectual capacity, and value. It entails recognizing, responding, initiating, and taking advantage of good opportunities to develop a sustainable business idea that will generate huge profits and increase human value and development.

A more comprehensive description of entrepreneurship can be found in Acs (2016), which aids in the understanding of the role of an entrepreneur. The author notes that achieving entrepreneurship starts from building up an entrepreneur to be confident to take new initiatives, maintain ethical standards, have versatile knowledge, be energetic and diligent, responsive to criticism and suggestions, and be self-confident and optimistic. Thus, an entrepreneur should be a passionate, and business-minded individual who takes risks in the

face of uncertainty to grow a new business with little resources or capital, which might later become massive and profitable if the business is managed properly (Mbonyane and Ladzani, 2011). Hence, the major function of an entrepreneur is to identify entrepreneurial opportunities in a particular location or environment, turn ideas into action, carry out a feasibility study, set up an enterprise and ensure its growth and development through proper management, employing a formidable workforce, and maintaining good customer relationships (Makinde, 2015). In view of the above, it can be said that entrepreneurship is the process of running a business that solely belongs to an individual. In addition, studies such as Agwu and Emeti (2014) maintain that the study of entrepreneurship is the process that entails an individual deciding to undertake a business by applying certain qualities such as good leadership, effective decision making, and business management to the business which would allow the idea behind it to become productive, innovative and economically beneficial. Naude (2015) asserts that when the activities of entrepreneurs are combined, it is known as entrepreneurship. According to Adeoye (2017), entrepreneurship is considered to be the main tool for industrial growth that creates wealth, employment, and advanced innovation through creative ideas and thoughts.

Entrepreneurship as a theme and concept was advanced by economists of the 18th century and attracted the attention of scholars up to the 19th century. In the 20th century, the term became indistinguishable from and closely interrelated with complementary ventures and private businesses (Baker and Eesley, 2013). Nelson (2015) corroborates this view by stating that entrepreneurship is the thing of the mind and the basis for consistency and productivity. Thus, for entrepreneurs it is not just about beginning a new business, or creating an enterprise from research, but basically it entails improving one's mindset and thinking system that will yield a positive result.

According to Bhaskar (2018), the existence of entrepreneurship entails sharing ideas spontaneously and revealing mistakes or failures in the process of learning and gathering experiences about a new business. Thus, entrepreneurial development empowers individuals to be flexible, adjustable, and to grasp opportunities.

Further, Stanford University has improved entrepreneurship knowledge among young graduates which serves as a blueprint and an ideal on how students and scholars can incorporate entrepreneurial thinking in their investigation for better entrepreneurship knowledge (Bloodgood et al., 2016). The basic idea of entrepreneurship based on research by Abianga (2015) includes:

Thinking ahead gives young minds the ability to take advantage of their presence and to build the future through innovation, business ideas, and practically starting up something new that

will amount to profit in the future. For individuals to achieve this, they must have the vision and mission to avoid obscurity and fear.

Working across disciplines: entrepreneurship education helps improve an individual's abilities to work across various disciplines and also gives them a broader picture of how to exploit their environment and produce excellent outcomes on entrepreneurship and various skills related to such outcomes (Babalola 2014).

Develop transferrable skills; most entrepreneurs acquire one skill or another and fail to share the same skills with others. Thus, entrepreneurship knowledge enables young graduates to develop their skills and apply them to various stages of their life, and then transfer the skills and knowledge to individuals ready to learn. Entrepreneurs think about the skills they have and how they can be applied to different situations. Entrepreneurs regularly have a range of transferrable skills, being the inventor and salesperson who is always accountable for their own knowledge.

Meeting people: through entrepreneurship, individuals get to meet new people to grow their business. This gives young entrepreneurs the ability to grow their business with consistency and broaden their perspective on entrepreneurial studies. Thus, entrepreneurship is a network of entrepreneurs, researchers, and students to collaborate effectively in creating new things (Acs et al., 2008).

Be in charge of your own destiny; one of the benefits of entrepreneurship is to allow individuals take charge, especially those with robust knowledge of the field. Thus, entrepreneurs are normally responsive and adaptable, working to make novel businesses and products despite any problems that may arise. This will help individuals in any aspect of an occupational path, either as a business owner or in the academic field (Ayferam 2015).

More so, the advancement in information communication technology and abundance of human and natural resources have given entrepreneurs leverage to thrive and explore opportunities and build a more business-oriented mindset that makes individuals more resourceful and knowledgeable. Arguing from the same point of view, Banson (2015) affirms that entrepreneurship development in Africa and across the world has become a viable economic approach with key factors such as the increase of physical capital, development of the labour force, technological evolution, and improved level of education in increasing human skills and creativity. For instance, entrepreneurship activities in Nigeria have yielded productive efforts in several areas such as agriculture, tourism, telecommunication, and transportation, which account for about 25% of the country's economy in the form of small and medium scale enterprises (Chaston 2017). This is possible with its human and natural resources and the role of education in improving entrepreneurship development, as is evident

among young people. Charmes (2016) suggests that the growing need for entrepreneurship development in developing countries revolves around the fact that entrepreneurship development is a key factor in improving economic growth and development, and most importantly, reducing increased hunger and poverty occasioned by unemployment.

2.3 Types of entrepreneurship

Though entrepreneurship is an inclusive practice of creating, initiating, and running a business, there are many diverse types of entrepreneurship that are taught in schools for students to be well prepared. However, individuals and those in the higher institutions of learning have unpredictable ambitions and ideas for the kind of businesses they want to create based on the knowledge acquired. Thus, choosing a specific entrepreneurship type depends on the individual's personality, skills, and physical characteristics (Suleman and Ricky, 2014). In view of this, Elkan (2010) outlined several types of entrepreneurship that are common among individuals such as small business entrepreneurship, large company entrepreneurship, scalable start-up entrepreneurship, social entrepreneurship, innovative entrepreneurship, hustler entrepreneurship, imitator entrepreneurship, researcher entrepreneurship, and buyer entrepreneurship. Each type of entrepreneur sees challenges in a unique way and has different resources to overcome them.

2.3.1 Small business entrepreneurship

Small business entrepreneurs are often individuals who own and run their personal businesses. They usually employ local personnel and family members to support them and make their business grow. Examples of small business entrepreneurship include local grocery stores, hairstylists, small boutiques, and consultants (Fuller-Love, 2018).

Small business entrepreneurship is mostly common among individuals because of its flexibility and level of organization and management which require little capital and human labour. In recent times, individuals concerned with small business entrepreneurship are mostly expected to make an income to sustain their families and support their simple lifestyle. Also, individuals who engage in small business entrepreneurship are not in search of large-scale profits or venture capital finance (Gollin, 2015).

2.3.2 Large business entrepreneurship

This type of entrepreneurship is not undertaken by small individuals with little capital because of its size, scope, and method of organization. Thus, this type of entrepreneurship is for an advanced, trained individual who knows how to apply creativity and sustain innovation. Also, large companies operate effectively by creating new services and products based on consumers' first choices and to meet market demand (Clover and Darroch, 2015). It is apt to note that this type of entrepreneurship is usually set up by literate individuals with extensive

business experience and human capital development. For instance, over 34% of individuals in the United States who operates large businesses are intellectuals with adequate knowledge of entrepreneurship and business management (Adeoye and Abu, 2015). Visible examples of such companies include Microsoft, Google, and Disney, among others.

2.3.3 Scalable start up entrepreneurship

According to Venkataraman (2019), scalable entrepreneurship is a kind of business setup that aims to grow extensively and make a profit, but starts off small. This kind of business allows entrepreneurs to have confidence that their company can be impactful and meet customers' needs. They operate by receiving finance from venture capitalists and hiring specialized employees who feel committed to facilitating transactions and interactions within a network. Most importantly, scalable start-ups search for essential products and services that are absent in the market, and devise effective ways of commercialising them (Wennekers and Thurik, 2020). Many of these types of businesses are usually technology-driven and engaged by knowledgeable individuals who seek quick growth and huge profit returns. Good examples of scalable start-ups are Facebook, Instagram, and Uber.

2.3.4 Social entrepreneurship

Social entrepreneurship is a societally based kind of business that vigorously seeks opportunities to transform and create a positive impact in their societies. They also try to add value to people's lives by pursuing a social mission (Ejiogu and Chinyere, 2012). Therefore, social entrepreneurs who want to solve human problems with their products and services are always practical in doing so, developing new models and creating new methods to overcome difficulties, and taking innovative approaches to solving social issues and transform communities through strategic partnership (Robbins et al., 2016). For example, social entrepreneurship in Canada is increasingly evident in the form of microfinance institutions to help tackle social problems by way of making a good living for people, increasing their momentum and their access to investment.

2.3.5 Innovative entrepreneurship

Innovation forms the basis of entrepreneurship in improving human knowledge and creating new ideas and products that will satisfy human needs. Thus, innovative entrepreneurs are individuals who are continuously producing inventive ideas and discoveries. They use knowledge that is then transformed into business ventures. This set of entrepreneurs often aims to change market perception by combining creativity and innovation in creating better opportunities (Shane and Venkataraman, 2015). Hence, innovative entrepreneurs have a tendency to be very motivated and passionate individuals who work tirelessly to make their products and services outstanding and unique. Tende (2014) argues that innovative

entrepreneurship strives in an environment with advanced technology and the use of the internet in speedily creating innovative products. For example, in the United State, increased advancement in the use of information communication technology has allowed innovative individuals like Steve Jobs and Bill Gates to supply the market with novel products like the iPhone and Microsoft operating system respectively (Thaddeus, 2012).

2.3.6 Hustler entrepreneurship

Committed individuals with a high level of responsibility who are eager to work and persistent are considered hustler entrepreneurs. This is so because of their efforts and readiness to start up any little business that will sustain them while they keep expanding as time goes on (Kao, 2018). They usually start small and labour toward growing a better-quality business with hard work rather than just capital. Hustlers are usually guided by their aspirations, experiences, and background which motivate them, and they are prepared to achieve their goals. They apply the concept of networking to connect with people who will help them irrespective of any challenges and physical confrontation (Todtling and Wanzenbock, 2013).

2.3.7 Imitator entrepreneurship

Imitators are groups of entrepreneurs who apply or copy others' business designs and strategies as motivation. However, they work to improve on them by making a certain level of modification and improvement (Ubong, 2015). In most cases, these individuals are not innovative enough to initiate their own ideas for starting up a business. They start businesses by making use of established ideas put forward by individuals with established businesses. Thus, they seek to make certain products and services superior and more cost-effective. Hammer and Hazell (2016) note that an imitator is a blend between an innovator and a hustler who seeks to achieve entrepreneurial success. They are willing, self-confident, and determined to copy from others rather than making their businesses entirely different.

2.3.8 Researcher entrepreneurship

This category of entrepreneurs starts up new businesses from scratch based on personal research and investigation before investment. They are regarded as business researchers who carefully and critically make deep studies on the location of their business, type of products, demand forecasting, product prices, customer demand, and marketing strategies. Thus, individuals put adequate information in place before undertaking a business. They trust that with the right research and information, they have a greater opportunity to become successful (Hébert and Link, 2013). They also depend on facts, verified information and logical proof, and not base their work on individual preconceived opinions and perceptions. It has been proven that 75% of individuals who carry out extensive research in Singapore before

venturing into a business have recorded more stability, growth, and consistency (Johnston and Mellor, 2016).

2.3.9 Buyer entrepreneurship

Buyer entrepreneurs are a specific type of entrepreneur who makes use of their capital to buy and improve business ventures. Their major concern is to use their wealth to buy already established businesses that they perceive will be successful in the long run. They also identify key challenges and solve them in order to avoid future recurrences if necessary. Their ultimate goal is to develop the businesses they procure and increase their profits. There is not much risk in buyer entrepreneurship because they procure well established firms (Rotberg, 2019).

2.4 General overview of entrepreneurship education

Entrepreneurship education presents students with the ability and opportunity to acquire knowledge and the required skills needed to engage in any form of entrepreneurial activity. Thus, in the process of improving entrepreneurship skills for human development and enlightenment, entrepreneurship education has emerged as a necessity aimed at changing individuals' ideas to identify and solve problems through new inventions (Baumol, 2018). Given this, Boettke (2017) reiterates that entrepreneurship education is the recognition of the overall features of entrepreneurs and the possibility of providing training for entrepreneurs in a specific business which enables them to acquire business management techniques needed for effective performance after the attainment of job-related skills. As aptly captured by Charney & Libecup (2000), entrepreneurship education is the embracing of knowledge and skill that qualifies students to make a good proposal, commence their own business, and gives them the appropriate knowledge on how to run a business through continuous learning and practice. In other words, entrepreneurship education lays a solid foundation for attentive individuals to become responsive and passionate thinkers on creating innovative ideas and turning such ideas into something productive and resourceful. Thus, through entrepreneurship education, students are guided on the right decision to make regarding a business, as well as the procedures and technicalities involved; they are exposed to real-life experiences through lessons from previously established businesses, and take risks when necessary. Zhao and Collier (2016) stated that entrepreneurship education is a powerful and practicable tool for self-empowerment, career development and wealth creation. This is because entrepreneurship education equips students business-wise and helps them familiarize themselves with new business perspectives and philosophies, and also increases their consciousness of business creation in a productive and competitive environment.

According to Woodward et al. (2014), entrepreneurship education was not formed in a vacuum, it arose out of the desire to gradually equip students with the ability to utilize opportunities and pass-through processes and procedures required to possess various entrepreneurial skills through training and intense teaching. This way, their knowledge on entrepreneurship becomes more robust. Thus, scholars such as Tengeh et al. (2015), and Iwu et al. (2021) have argued that entrepreneurship education is one of the strategic steps required to build the psychological strength of individuals in any society which would drive the creation and development of new ventures. In recent times, entrepreneurship education has been inculcated into the school curriculum in developed countries of the world such as Japan, the US, UK, and Germany among others, as a means to maintain a standard in the academic sector and raise minds that are ready to work, learn, transform, and change society through innovation and technology (Iwu et al., 2020). Therefore, by incorporating entrepreneurship education in schools, these countries aim to provide a clearer path and content for developing future entrepreneurs, building career opportunities for students, developing a context and solid foundation for building future entrepreneurs, and developing rural communities through research development (Iwu et al., 2020). A study by Nchu (2017) reveals that most countries have experienced a paradigm shift in entrepreneurship to embracing entrepreneurship education as a broad discipline in schools. It is a young academic field that is progressively becoming relevant for students in an advanced technological world. The advancement in technology has increased the high demand for courses in entrepreneurship as these technological skills can be applied to entrepreneurship to improve performance. Entrepreneurship courses provide interested students with the opportunity to build a career and own their businesses, thus spreading prosperity and their entrepreneurship knowledge to societies and the rest of the world (Iwu et al., 2021).

As reported in Bygrave and Minniti (2018), entrepreneurship education in universities in the US and the UK has included courses covering key areas like leadership acquisition, product creation, business management, customer relationship management, creative thinking, building a noble character for students venturing into one business or the other, resource management, and information communication technology. For instance, the University of Nebraska located in the United States has advanced entrepreneurship education through its slogan ‘Learn to Think Like an Entrepreneur’, which serves as a blueprint for young students who are ready to carry out rigorous research and create innovative ideas (Carree, 2015). With this entrepreneurship foundation, students are taught to think ahead, develop transferable skills, meet new people and mentors, and be in charge of their destiny. In Africa, entrepreneurship education has taken on dimensions that include building great minds to

improve entrepreneurial skills and enhancing small to medium enterprises (SMEs), which are dominant in rural and urban areas.

The major aim of entrepreneurship education in Africa is to build self-sufficiency and self-reliance among youths. Entrepreneurship education helps to advance their skills and fill the existing gaps in the labour market through self-employment (Ehis and Frank, 2017). In Nigeria for instance, entrepreneurship education is one of the strategic goals of the National Policy on Education for the tertiary institution to help individuals carry out entrepreneurship studies through industrial training programs (IT) and skill acquisition in areas like crop farming and livestock farming, dyeing of cloth, hairdressing, soap making, shoemaking, printing, and information communication technology, amongst others (Olawale, 2017). These various skills are products of entrepreneurship education aimed at improving human knowledge. In South Africa, several initiatives have been sought by stakeholders concerned with the employability of the South African youth to incorporate entrepreneurship education into the school curriculum (Pierre & Lumpkin, 2017). Since the 1990s, several steps have been taken by the government to create a possible entrepreneurship curriculum that will help its citizens grow rapidly and make meaningful achievements in the path of self-development and sustainable growth across the country. First, a committee was set up by the Department of Education and Culture to examine the possibility of the addition of entrepreneurship education in schools as a result of poor entrepreneurial and individual performance (Sander and Thurik, 2016). Findings by Ikechukwu and Okechukwu (2016) revealed that the first study conducted on entrepreneurship education in South Africa was targeted at creating opportunities in internships anchored on originality and value and improving societal needs. On the whole, entrepreneurship education results in entrepreneurship intentions, creativity in deliberate individuals, job creation, improvement of living standards, and development of the economy.

2.4.1 Benefits of entrepreneurship education among South African graduates

Acquiring entrepreneurship education serve as a platform for young graduate in South Africa to initiate and develop new ideas for sustainability and human capital development (Sambharya and Musteen, 2014). Thus, through entrepreneurship education, South African students have better opportunities for exposure, knowledge of the business at an early stage, thinking about a prosperous future, increasing their personal growth and development, and being helped to identify problems easily based on the knowledge acquired (Sander and Thurik, 2016). Sarma and Pais (2018) corroborate this by stating that entrepreneurship education in South Africa is increasingly becoming prevalent and the beginning of success among young graduates. Karlsson and Paulsson (2014) specifically mentioned key benefits of entrepreneurship education among South African students which include the following:

2.4.2 Creative mind

The first stage and benefit of entrepreneurship education is creativity. This is because no graduate can achieve a successful business setup without having a creative mindset. Thus, students improve their ability to create more value for their products and services based on knowledge acquired from entrepreneurship education (Sander and Thurik, 2016). This has shaped individual mindsets and orchestrated an increase in their desire to solve problems, and their willingness to explore in a challenging environment.

2.4.3 Ethical standard

Through entrepreneurship education, graduates maintain a good ethical standard based on good morals, conduct, discipline, and attitude. These qualities and human values are thought in the university to improve prospective business owners with regard to ideal business setups and good conduct. The ethical standard of businesses in South Africa and elsewhere is that business operators should not be involved in cheating, fraud, and bribery, but should base their activity on honesty and real satisfaction (Kritikos, 2014). Thus, young graduates with a passion for entrepreneurship skills learn this principle through entrepreneurship education.

2.4.4 Conceptual skill

Operational entrepreneurs are described by their conceptual skills. These are definite capabilities to examine and investigate a situation, make decisions, determine the root of any problem or opportunities and develop a suitable plan for a smooth operation (Koira, 2015). Through entrepreneurship education, university graduates develop a thorough ability to solve their immediate problems that are business-related.

2.4.5 Versatile knowledge

Individuals who multi-task and are versatile in knowledge often achieve this height through entrepreneurship education which opens more opportunities for multiple business setups. Thus, a young entrepreneur in South Africa has developed a resourceful and satisfactory knowledge of the trade, finance, digital marketing, supply chain management, operations management, technical management concerns, and other business areas. This knowledge gives them an advantage in terms of profit-making and exposure (Mahadea, 2018).

2.4.6 Knowledge of the market

One of the key benefits of entrepreneurship education is increasing graduate knowledge of the market. Thus, young entrepreneurs in South Africa have gathered enough knowledge of the market as well as newfound marketing strategies for expansion and understanding customers' demands. Through entrepreneurship education, young graduates understand

geographic, demographic, and behavioural changes in the market which makes them know the market demand and supply process (Boettke, 2017).

2.4.7 Response to criticism and suggestions

As a result of entrepreneurship education, young entrepreneurs often respond to criticism intelligently and decisively. In ensuring a long-lasting customer relationship, young entrepreneurs always focus on customer complaints and demands at all times and respond positively to overcome these complaints (Collier, 2014). Also, entrepreneurship education gives young graduates in South Africa the ability to make new suggestions, conduct research, and the flexibility to apply scientific findings to compete and stay relevant in business.

2.4.8 Eligibility in evaluating risks

Risk is part of every business; thus, every young entrepreneur should be ready to take risks without fear and discouragement. Thus, entrepreneurship education gives young graduates the insight to manage a new business through risk evaluation and to act more confidently on future business decisions (Aderemi, 2013). In achieving this, individuals are exposed to the risk management process in identifying, assessing, and controlling threats to their capital and profit.

2.4.9 Self-confidence and optimism

Entrepreneurship education increases the self-confidence and optimism of graduates in South Africa. Since the business world in recent times is moving at increasing speed, young individuals seek to build and re-assert their confidence by gaining timely entrepreneurship education to improve with regard to effective decisions, planning, and controlling to overcome unexpected challenges (Sheriff and Muffatto, 2015). Graduates from the University of Pretoria attested to the impact of entrepreneurship education in increasing their self-confidence and expectations.

Barako (2017) further suggests that effective entrepreneurs are characterized by self-confidence and optimism which makes them attractive, firm, resilient, and qualified to get huge business deals.

2.5 Entrepreneurship intentions

Entrepreneurship education, skills, and the outcome cannot be achieved by individuals without entrepreneurial intention. Nwachukwu (2017) perceived entrepreneurial intention to be an entrepreneur's basic awareness, perception, choice of decision, and behavioural predisposition to start up a new business. Ligthelm (2010) asserts that entrepreneurial intention is an attribute based on preconceived opinions about entrepreneurship and the

expectation of prospective entrepreneurs about whether they should get involved in entrepreneurship activities or not. Lin and Shen (2014) further suggest that entrepreneurial intention is the acceptance and confidence that entrepreneurs have to venture into a business. Thus, entrepreneurship intention is a mental state that directs individual responsiveness towards a defined business goal to accomplish entrepreneurial outcomes. This intention makes individuals take action to develop their minds and attitude toward creating something new and adding value to existing enterprises. According to Makinde (2015), entrepreneurship intention must have a motivational undertone backed up by certain factors that influence individuals to pursue entrepreneur outcomes. These factors could be high capital, experience, knowledge, and technological underpinnings. desirable.

Mary et al. (2015) further argue that entrepreneurship intention leads to entrepreneurial self-efficacy with the belief that individuals can successfully execute the processes involved in entrepreneurship; or enhance the degree to which an individual has a favourable or unfavourable evaluation of potential outcomes. Contributions made by Mbonyane and Ladzani (2011) highlight that entrepreneurial intention comes with self-will, the ability to recreate, the pursuit of self-reliance, and the aspiration of an individual to be independent. These authors in their sample of African university students, found that over 65% of students in most universities in Africa observe that their drive for pursuing entrepreneurship is closely related to other factors like 'personal fulfilment', increasing value, and 'taking up personal responsibility'. However, this entrepreneurship drive is usually halted by a lack of support, discouraging economic climate, and a shortage of funding (Morris and Kuratko, 2013).

As reiterated in a study by Ngerebo (2012), entrepreneurship education serves as a significant determining factor in strengthening the objective of individuals to engage in entrepreneurial activities and reduce the high rate of unemployment in South Africa. Thus, the intention of an individual to embrace entrepreneurial studies is influenced by certain factors such as the significance of the entrepreneurship curriculum, as well as intense entrepreneurship studies, and workshops to build a strong career. Other key determinants of entrepreneurship intention are increased social values and family financial status. Societal values promote justice, freedom, respect, and responsibility for individuals which changes their mindset to commit themselves to entrepreneurship. On the other hand, a family's financial status often influences individual decisions to take up entrepreneurship and perhaps pursue entrepreneurship education (Philips et al., 2014). Consequently, family financial status has an effect on entrepreneurship education uptake which in turn, is a strong motivation for entrepreneurial intentions amongst students.

Mahlaole et al. (2021) conducted a study that examined the impact of entrepreneurship education on students' entrepreneurial intentions through the lens of planned behaviour theory. The study's findings indicated that the perceived effects of entrepreneurship education significantly influenced perceived behavioural control, subjective norms and attitude toward behaviour, but had no effect on entrepreneurship intentions.

Their research revealed that attitudes toward behaviour, subjective standards, and perceived behavioural control all fully moderated the association between entrepreneurial goals and perceived benefits of entrepreneurship education (Mahlaole et al., 2021).

In a related study, Omotosho et al. (2020) found no significant effects on students' leadership, communication, goal-setting, interpersonal skills, financial discipline, creativity, or budgeting abilities, despite the fact that entrepreneurship education significantly improves students' time management abilities.

2.6 Graduate employability

Graduate employability is a concept used in this study as it relates to higher education. As captured by Olawale (2017), graduate employability is a set of successes, skills, understanding, and personal attributes that increase the chances or prospects of individuals to be gainfully employed and be effective in their preferred careers which is beneficial for them and improves the condition of society. Employability has turned out to be a principal approach to enhancing graduate skill sets in universities which are based on the notion that individual employment is characterized by having the skills and abilities as a required disposition (Adeoye, 2017). Thus, individuals have to acquire a high degree of knowledge to make them more presentable and qualified for employment after years of tutorship in character and learning in a higher institution (Mandyoli, Iwu, and Nxopo, 2017). Oluwatayo (2017) outlined numerous employable skills and features an individual should acquire such as creativity, flexibility, willingness to learn, ability to work under pressure, good oral communications, time management skills, planning, coordinating, and organization abilities, and the ability to use recent technology. Since employability is considered to be one of the criteria for graduate job enrolment (Iwu, Mandyoli, and Magoda, 2018) it is imperative for a university graduate to improve their knowledge throughout their program to meet the demand of organizations and fulfil their task. Thus, graduate employability solely rests in the hands of students and graduates (Lindsay, 2015). Consequently, universities are expected to improve their curriculum and actively improve the knowledge and skills of students to meet the standard and criteria of organizations to increase the employment rate of graduates.

In the United States, graduate employability is at a high ebb with universities such as Massachusetts Institute of Technology, California Institute of Technology, and Harvard University producing the most employable graduates as indicated by the Global University Employability Ranking in 2021 (Ogundele and Abiola, 2019). This ranking has been accepted by companies globally. An empirical study by Onyeji and Nussbaumer (2016) shows that graduate employability in South Africa is low due to its high unemployment rates. Statistics show that the total number of employed persons has remained unchanged at about 15 million since 2019 which raises questions about the validity and level of education acquired by South African students from various higher institutions. Chaston (2017) argued that graduates are not gainfully employed after years of acquiring knowledge despite the high standard of education among South African universities. Thus, several causes were highlighted such as the poor living conditions of graduates, poor socioeconomic status, curriculum problems, corruption, and the domination of foreigners.

2.7 The dangers of high unemployment in an economy

Generally, unemployment is one of the key social problems in the global system confronting many governments and impeding socio-economic development. According to Rotberg (2019), unemployment takes place when qualified individuals/graduates are deprived of work while strongly searching for a good job that suits their study interests. In most cases, a high rate of unemployment is an indication of economic misery Sambharya and Musteen (2014) argue that unemployment could be frictional, cyclical, structural, or institutional which poses a threat to a nation and could be caused by several factors, although they differ by country.

For example, research by Sander and Thurik (2016) has provided similar evidence for the causes of unemployment in various countries. India, which has a current unemployment rate of 9.30%, attributes its unemployment rate to its large population, lack of vocational skills amongst adults, low education among the working population, fall of cottage and small industries, and the social caste system. Brazil, on the other hand, has an employment rate of 14.7% triggered by social inequality, high inflation, increased population, slow economic growth, and educational problems. The Philippines' unemployment rate is currently standing at 17.20% which is attributed to overpopulation, and the oversupply of the labour force in certain industries.

Unemployment in the African continent has risen astronomically, which remains a bane to its development. For instance, South Africa (34%), Namibia (33.4%), and Nigeria (33.3%) have the highest unemployment in Africa, as reported by Co and Mitchell (2013). The major causes of unemployment in South Africa, as argued by Sarma and Pais (2018), remain the legacy of

apartheid and poor education and training, the laziness of its citizens, poor governmental policies, lack of general interest in entrepreneurship, and slow economic growth. On a global level, unemployment poses a danger to an economy in myriads of ways. Sarma and Pais (2018) note that unemployment leads to wastage of manpower and resources. This happens because individuals who should serve as support for the economy turn into liability. Consequently, a feeling of fruitlessness and misery among the youth is created, causing these individuals to feel that their existence is a social waste and that they are incapable of adding value to the economy. For instance, in India, out of the 9.3% of individuals who are jobless, over 5% remain mentally incompetent, and these individuals do not have the capacity to contribute to the development of the economy. Reports by Word Bank point out that for India to reduce its unemployment and increase manpower for economic development, over 8.1 million jobs need to be created every year. In Brazil, over 10% of its unemployed population remain unproductive, which diminishes their morale and in turn reduces economic output daily (Sarma and Pais, 2018).

More so, in South Africa, high unemployment has drastically endangered its economic output because of the waste of its manpower and resources among youth. Research conducted by Adeoye and Abu (2015) reveals that among the 34% of unemployed people in the country, young individuals between the age of 15-34 are affected, which affects its economic manpower by a 5-10% reduction of its GDP. Thus, South African unemployment has a damaging impact on general growth which is a sign of a depressed economy. One of the most disturbing dangers of unemployment is a high increase in social vices such as cybercrimes, fraud, thefts, murders, terrorism, and others. These crimes are caused by the frustration of individuals who seek to attain an average life and maintain a meaningful status in society. For young individuals to cater to their needs, they engage in all sorts of crimes that can directly or indirectly affect the economy of a country. For instance, Nigeria is recorded to have a high increase in cybercrime activities such as hacking and other illegal online activities (Wennekers and Thurik, 2020). Boettke (2017) reiterates that these social vices dent the image of Nigeria at the global level, reduce foreign investment, reduce confidence in the digital economy, and cause loss of finance to private and public organizations.

In South Africa, the high rate of unemployment has resulted in cyber activities such as phishing, smishing (a form of scam where the victims are contacted via texts; SMS), vishing (similar to phishing and smishing but the victims are called via the phone with pre-recorded robocalls), and public extortions which are on the rise. Further investigation by Zhao and Collier (2016) highlights that South Africa has the third-highest rate of cybercrime victims globally, losing roughly R2.2 billion a year to cyber-attacks, which also negatively affects its economy.

On a general note, there are numerous dangers or risks of unemployment in any nation, most especially under-development which has always been prevalent. As reiterated in Bygrave and Minniti (2018), unemployment as a social phenomenon has created a severe risk for the development of any nation, with risks such as the following.

2.7.1 Mental health challenges

One of the foremost dangers of unemployment is its effect on the mental health of individuals, because it impacts their social well-being and performance. Thus, unemployment increases an individual's risk of developing negative symptoms. These symptoms come as a result of frustration, anxiety, peer group pressure, high blood pressure, and drugs, which make an individual depressed. The implication of mental health challenges for a county's economy, as noted by Clover and Darroch (2015), will be that individuals who are supposed to contribute to development become handicapped and weakened which brings backwardness to a country and makes individual feel worthless. According to Venkataraman (2019), this problem is mostly noticed among university graduates who feel they are supposed to be gainfully employed upon graduation.

2.7.2 Poor economic policies

Good economic policies remain a significant factor that brings a country to the path of greatness when knowledgeable individuals with great dexterity in various fields are given the opportunity to involve themselves in the decision-making process of a country either by election, appointment, or employment (Tende 2014). On the other hand, poor economic policies are a product of unqualified individuals who are employed in top organizations while the qualified ones still remain unemployed as a result of tribalism and ethnic affiliations. For instance, a country like Nigeria has suffered poor economic policies, whereby qualified citizens with sound minds are not given the opportunity to showcase their value and intellect that could build the country. Graduates with employable skills are often overlooked and deprived of work which makes many relocate to other countries in search of a better livelihood (Todtling and Wanzenbock, 2013). This is the reason why Nigeria has lost many of her best brains to developing and developed countries because of her inability to provide job opportunities. Consequently, the development of the economy is hampered.

2.7.3 Reduced income

As highlighted by Naude (2013), unemployment reduces the income of individuals, especially graduates, to a very minimal level. In fact, individuals who are unemployed and have no source of income often depend on their savings or borrowed funds to cover vital expenses. The implication of this is that such individuals become poorer and financially weakened, which reduces productivity and cumulatively affects the economy at large.

2.7.4 Income inequality

Another profound danger of unemployment is the problem of income inequality which affects individual social well-being and the desire to fully participate in the developmental effort of a country (Ikechukwu and Okechukwu, 2017). Nwachukwu (2017) further avers that income inequality is commonly viewed as the discrepancy in the sharing of income between individuals, groups, classes, and, countries. In advanced countries like the United States, income inequality is caused by factors such as technological change, globalization, and most importantly, unemployment. When there is a high unemployment rate in any country there is a high tendency to disparity in income distribution which makes the employed richer at the expense of the unemployed ones. On the whole, Ogundele and Abiola (2019) state that a high level of income inequality in any given society results in economic instability, financial crisis, debt, and inflation which are all hurdles to development.

2.7.5 Social exclusion

It is widely accepted that when qualified individuals such as university graduates are not employed, they feel excluded from society. The social exclusion which is as a result of unemployment makes individuals poor in terms of income, health, or education by making them deprived of access to resources, markets, and public services (Onyeji and Nussbaumer, 2015). Allan and Manley (2016) found that social exclusion makes an individual feel unworthy to enjoy certain societal benefits as a result of poverty, inequality, lack of decent and available public services, lack of finance for public transport, the welfare, and benefits system, and lack of good housing. All the above-mentioned problems affect individual psychology and makes it difficult for the affected to contribute to the development of a country.

2.7.6 Increased crime rate

There is no doubt that crime is a dividend of unemployment, which is manifest in all countries of the world. However, the crime level depends on the extent to which a country manages its practices such as providing employment to citizens, standard education, socials programs, and others. Findings by Ozgen and Minsky (2017) show that most of the crimes perpetrated by young individuals, for example, In the US, are caused by unemployment. Thus, an increased crime rate reduces safety for a peaceful and friendly business environment, interrupts social order, creates disorder and confusion, and creates dire economic costs to the people and nation at large. In Nigeria, 65% of university graduates engage in crimes such as robbery, kidnapping, and fraud caused by the incompetence of the government to provide jobs for them (Reynolds, 2015).

2.7.7 Loss of human capital

An increased rate of unemployment among graduates reduces human capital whereby individual economic value, experience, and skills are maximally reduced (Boettke, 2017). Also, when young individuals are not employed, key human capital features like education, training, acumen, skills, health, and other key organizational values valued by employers such as loyalty and punctuality become affected (Robson and Obeng, 2019). Thus, when individuals fail to possess these fundamental values and features because of joblessness, they become unproductive and unwilling to contribute to the development of society, thus creating a huge vacuum for economic development.

2.8 Why paid employment is more attractive than self-employment

In recent times, the nature of paid employment has made it more acceptable and valuable to individuals who are willing to earn a living through being employed (Bygrave, 2018). Frank et al. (2017) defined paid employment as the condition that puts an individual to work for an organization, either public or private, and is paid in return for their services. Everybody wishes to make a good living and see themselves become more respected than when they were self-employed. Hence, the desire of many graduates is to be gainfully employed in the work of their choice which makes them feel more fulfilled (Carree, 2015). On the other hand, self-employment involves individual engagement as well as the decision to manage one's own business without being under the control of anyone. Thus, self-employment is when an individual chooses to work for themselves instead of an employer (Naude, 2015). An individual feels self-employed when he/she starts up a new business to make a profit. Most entrepreneurs and owners of SMEs are considered self-employed because they determine how the business should be controlled, choose the brand type, provide the capital and make daily or weekly earnings. Instead of being paid a salary or wage by an organization, a self-employed person makes their pay directly through the earnings made from their business or handwork (Makinde, 2015). Thus, paid employment seems to be more attractive than self-employment largely because of the formal sector's commitment to paying its workers.

In a developed society where the government is functioning and operational in promoting social welfare for the people, individuals will prefer paid employment over self-employment because of the advantages and special insurance that covers paid employment which protects their interests. For example, in Singapore, paid employment seems to be more attractive to graduates irrespective of the increasing number of entrepreneurs (Mbonyane and Ladzani, 2011). This is simply because of the nature of employees' payroll where citizens receive certain employee benefits such as transportation compensation, sick leave, annual leave, inducements and bonuses, relocation assistance, healthcare benefits, retirement fund contributions, housing and children's education allowances. The government and private

companies ensure that the social condition of its employable citizens is prioritized at all costs. Oviatt and McDougall (2015) reveal that out of the total population of Singapore, the labour force employment rate stands at about 64.5% which has increased the level of paid employment over self-employment.

In the same vein, research conducted by Chaston (2017) submits that the United States of America has one of the highest numbers of paid workers with over 80.4 million workers being paid at hourly rates which represent 58%% of all wage-earning and salaried workers. Though self-employment could be beneficial to graduates, especially in terms of increasing their level of creativity and entrepreneurial skills, graduates still downplay self-employment mainly because no employee benefits are attached to it, and its irregular income, potentially long working hours, increased responsibility, business pressure, and lack of structure. Though there are enough jobs available for Americans, approximately 16% of its population are entrepreneurs. In South Africa, self-employment is increasing, with over 3.5 million people actively employed in numerous government sectors such as the community and services, trade, finance, manufacturing, transport, agriculture, mining, utilities, and private households. Further, Sander and Thurik (2016) affirm that out of the population of 60 million in South Africa, only 11.9% have entrepreneurial intentions but are still confronted with certain challenges like lack of funding, access to finance, and lack of zeal and commitment to work, which has made the world view South Africa nationals as lazy. As a result, migrants take advantage of these open opportunities. Also, evidence from a study by Ahiauzu (2015) suggests that there are higher chances of international migrants getting employed than South Africans as they account for over 55% of the country's workforce. On the whole, Baumol (2018) posits that paid employment is more attractive than self-employment in South Africa because of the statutory and common benefits such as health insurance, overtime pay, paid time off, medical aid, voluntary retirement benefits, and other fringe benefits that do not accompany self-employed jobs.

2.9 Summary

Entrepreneurship is a broad concept that has been defined in various ways, as this chapter has discussed. An overview was presented of entrepreneurship as perceived globally and in the African context, as well as factors that facilitate entrepreneurship as a whole. Entrepreneurship education as well as literature on entrepreneurial intentions were discussed, and these factors were used as a guide to formulate the questionnaires that would present answers to the research questions of this study.

CHAPTER 3

Research methodology and design

3.1 Introduction

The research methodology utilised in carrying out this study is outlined and discussed in this chapter. The chapter outlines the research methods and design and how they were utilised to carry out the data collection processes and tools. As stated in chapter 1, the study's aim was to ascertain the extent to which entrepreneurship education influences entrepreneurial uptake amongst soon-to-be graduates i.e., third- and fourth-year students currently studying entrepreneurship. It also aimed to determine the factors that contribute to the entrepreneurial uptake decision upon graduation.

3.2 Research design

Before beginning a research project, a researcher or study team should create a private working document within which all decisions that are made at the start of the research project are included. This is known as the research design (Blaikie and Priest, 2019). It is a comprehensive declaration and subsequent validation and/or justification of the technical choices/decisions made before and during the planning of a research endeavour (Blaikie and Priest, 2019).

One of several definitions of a research design, according to Akhtar (2016), is that it is the organisation of parameters for data collection and analysis with the goal of balancing economy and method with relevance to the study purpose.

In order to address the overall study topic, the research design dictates how participants are chosen, what variables are included and how they are modified, how data is gathered and evaluated, and how unnecessary variability is managed (Dannels, 2018: 15).

Additionally, the research problem and the research questions of the study are addressed using the structure established by the research design.

A research design has two layers; the first concerns the research methodologies, such as whether a study uses a quantitative, qualitative, or mixed method approach. The other involves many sorts of research, including ethnography, case studies, surveys, content analysis, phenomenology, longitudinal, and narrative research, amongst others (Thomas and Hodges, 2010; Mahlangu, 2019).

The research design is based on the purview of and objectives evident in the expected results. It considers the available resources and the problems involved with their use or deployment, while also identifying the unique characteristics of the study such as being able to confirm or refute prior research findings (Mukherjee, 2020).

In order to assess the degree to which the entrepreneurship education the students receive influences their decision to pursue an entrepreneurial career as well as other factors that may influence such decision, the research design employed in this study was a mixed methods research design.

3.3 Research methods

According to Thomas and Hodges (2010), the collection of procedures and methods employed to gather or produce the research data or supporting materials for a project is known as the research methodology.

For instance, the purpose of this study was to gather relevant information (through data collection instruments mentioned in this chapter) on how much entrepreneurship education impacts the decisions taken by third- and fourth-year students of the CPUT Department of Entrepreneurship and Business Management to take up entrepreneurship upon graduation, as opposed to seeking employment. Therefore, the research methodology is the set of methods and/or processes the study intends to utilise to obtain said information (Jowah, 2011).

The responses from the third- and fourth-year students needed to be specific and measurable; hence, a survey/questionnaire was the chosen method for gathering this data (Iwu et al., 2016).

3.4 Unit of analysis

The object or entity being investigated in a scientific study is referred to as the unit of analysis (Dolma, 2010). The study only included third- and fourth-year CPUT students majoring in entrepreneurship, who are, in this study, the unit of analysis. The intended overall population consisted of 120 third year students and 53 fourth year students, a total population of 173 students. The sample size was then derived from this overall population and as the time of collection, the sample size became 136 in total, i.e. 126 questionnaires and 10 interviews.

This study examined the effects entrepreneurship education has on Cape Peninsula University third- and fourth-year students who are pursuing their entrepreneurship education at CPUT.

3.5 Research population

In research studies involving human participants, the group of people who meet the criteria to be a part of the study sample is referred to as the target population (Sekaran & Bougie, 2013).

Therefore, the third- and fourth-year students planning to earn their National Diplomas and/or BTech/Advanced Diploma in Entrepreneurship made up the sample.

The decision to concentrate on third- and fourth-year students was made since these two groups of students were closer to graduating and were in the last stages of their entrepreneurship education as compared to those in their formative first and second years.

The exclusions were students outside the chosen geographic location; students outside the business field; and students who had already graduated from the entrepreneurship qualifications mentioned above.

3.6 Sample size

The sample size for this study was chosen from amongst the students studying entrepreneurship at the Cape Peninsula University of Technology but specifically, the third- and fourth-year students who were closer to completing their entrepreneurship education. Jowah (2011:99) has described a sample simply as a specific portion of an entire population's social structure i.e., a smaller section of a larger population.

It was elaborated in chapter one that this study employed a method using the confidence level and confidence interval also known as the population size and margin of error. The larger the population size, the lower the margin of error, according to Cohen et al. (2017). Therefore, the study utilised 78.61% of the population for both year three and year four students against a 5% margin of error, and this helped the researcher to determine the sample size for this study. The sample size settled upon was 136 participants.

3.7 Data collection

The data collection instruments employed in the study were a combination of questionnaires and interviews. The questionnaires were the primary source of collection while the researcher intended to use the interviews to fill in the gaps that the questionnaires could not cover.

3.7.1 Questionnaires

As at the time the data was to be collected, the Covid-19 pandemic had caused a shutdown of the university's campuses and therefore, physically distributing questionnaires was not possible as the students received online lectures and were not required to be on campus physically. Therefore, the study had to utilise an online questionnaire to reach all the participants. This was achieved through the help of Google Forms where students could access the questionnaires through a link sent to everyone one in the sample population.

The questionnaire had a section which sought to answer questions relating to the demographics of the participants by determining their age range, their gender, their intended qualification, as well as their average household income. These were employed to determine what demographic factors contributed to their entrepreneurial intentions upon the completion of their entrepreneurship education.

The other parts of the questionnaires sought to determine the extent to which the participants agreed with a statement by using a Likert scale to gauge their responses. The last part of the questionnaire employed a 'Yes or No' type of question to determine the work experience of the participants.

The literature review informed the content in both the questionnaires and the interviews.

3.7.2 Interviews

An interview is a dialogue that often takes place between two persons and in which one of the participants (the interviewer) is looking for answers/information from the other participant (the interviewee) for a specific reason, according to Gillham (2001).

Like the questionnaires, face-to-face interviews could not be conducted due to the same Covid-19 restrictions, and to protect both the interviewee and the interviewer from the dreaded virus, telephonic interviews were therefore utilised.

The interviews were conducted in English because the entirety of the participants receive their lectures in English as that is the medium of communication employed by the university. The purpose of the interview was to gain the added advantage of the participants being able to express themselves more freely than the questionnaires would have afforded them. This in turn, allowed the interviewer to gain new insights and perspectives with regard to the respondents' answers to the questions.

The responses were recorded and then transcribed into text for the purpose of compiling and analysing the responses gathered.

3.8 Validity

It is possible to demonstrate and communicate the thoroughness of the research procedures and the veracity of the study findings using reliability and validity (Robert and Priest, 2006). In this study, validity was determined and/or confirmed by comparing the extent to which the responses from the participants corresponded to the expected outcome of the study.

3.9 Reliability

According to Hair et al (2003: 174), validity is the process through which a researcher evaluates the accuracy of the data that has been gathered utilizing a variety of research tools. Validity and reliability are related, with the claim that validity benefits more from reliability (Emory, 1980). The capacity to achieve consistency during measurements is referred to as reliability (Selitz et al, 1976:182; Etim, 2018). It is a method used to quantify the variables in study (Polit, 2017). This study used both qualitative and quantitative research data, gathering information through structured interviews and questionnaire methodologies to assess how much entrepreneurship education influenced third- and fourth-year students' decisions to pursue entrepreneurial endeavours after graduation. For the purpose of this study, a test-reset reliability method was employed in order to test if the same results would be obtained if the questionnaires were repeated months apart. To achieve this, a pilot test was carried out via the questionnaires. The results from the pilot test were similar to that of the final study carried out amongst the participants which indicated that data or responses were reliable.

3.10 Data analysis

The surveys collected via Google Forms were collated and then exported into a Microsoft Excel spreadsheet. There, the surveys were inputted and put into appropriate columns and cells.

After this was done, the spreadsheet was then exported to IBM SPSS software, version 29.0.0.0 (241) where coding was done for each individual section, question and statement gathered. They were coded into a numeric form in order to be easily analysed and interpreted into statistical terms. Analysis was then conducted and documented.

3.11 Ethical considerations

According to Arifin (2018), it is crucial to protect human participants in research investigations by following the appropriate ethical norms and principles. These ethical norms and principles were duly adhered to in this study in the form of permissions, confidentiality and the participants’ rights to privacy.

3.11.1 Permission

To ensure that the code of conduct was adhered to by the researcher, the Department of Entrepreneurship and Business Management, to which the respondents belong, had given written consent prior to data collection.

After reviewing the suggested study equipment and/or tools, the Ethics Committee also gave their consent for the researcher to conduct the research.

The appendices below contain all relevant attachments, including written approvals and documentation.

3.11.2 Confidentiality and privacy

The respondents received guarantees of their anonymity and confidentiality of their personal information. Their confidentiality was controlled during and after the surveys and data-gathering process. Participants' personal information was not needed, in order to ensure their privacy. The responses sought, included but were not limited to; gender, age, average household income, work experience and level of study of the participant.

The research treated with utmost respect the privacy of the respondents and carried out the data collection without asking questions that compromised their rights, values or confidentiality. The data collected was securely stored with security measures in place, such as passwords and multi-factor authentication to gain access to the files. As stated earlier, the interviews were conducted telephonically, thereby ensuring that the respondents could answer the questions in an environment of their own choosing. Similarly, the questionnaires were distributed electronically, allowing the respondent to choose when and where to respond to the surveys.

3.11.3 Voluntary participation and informed consent

Respondents were given the option to accept or decline to participate after being fully informed of the study's aim and objectives, and after taking this into account.

Additionally, a request for participants to consent to the study is contained in the questionnaire. Before each interview, the request was also repeated. Each correspondent was asked for their agreement after being explained the purpose of the study and made aware that participation was entirely voluntary.

Potential respondents were also informed by the researcher of their right to revoke their inclusion at any moment if they so desired. Participants were also made aware of their right not to respond to any questions or information they felt uneasy divulging.

3.12 Summary

This chapter described the research approach utilized to conduct the study and to look into how much entrepreneurship education affected possible entrepreneurial outcomes amongst students of the Cape Peninsula University of Technology in Cape Town, South Africa.

The research population was limited to third and fourth-year students who have entrepreneurship education in view.

CHAPTER 4

Presentation of data and analysis

4.1 Introduction

This study was conducted with the aim of determining the extent to which entrepreneurship education influenced or impacted actual entrepreneurship intentions, practices and outcomes amongst students in a university of technology in the Western Cape. This was carried out amongst third and fourth-year students at the Cape Peninsula University of Technology, Cape Town.

The study aimed to achieve this through its objectives which were:

a. to determine the extent to which entrepreneurial uptake in a South African university of technology is influenced by entrepreneurship education;

b. to determine the factors that may influence the pursuit of an entrepreneurial venture upon graduation;

c. and to determine the extent to which the entrepreneurial intention is influenced by any of the factors such as gender, age group, average household income, choice of study, work experience, social values and other factors discussed in this chapter through the questionnaires/interviews.

The entire population of respondents was based on the two categories mentioned above i.e. third- and fourth-year students in the Department of Entrepreneurship and Business Management. A total of 126 questionnaires was administered and 10 interviews were conducted. These were conducted with the consent of the university through the department mentioned above, and with the consent of the participants as well. The participants were assured of their anonymity and were informed of their right to withdraw their consent during the course of data collection.

In this chapter, the results of the data collected from the participants of the study are discussed in full detail. Frequency tables are used to display the percentages of the population on specific questions and/or statements from the questionnaires. The questionnaires were collected with the help of Google Forms and they were then exported to an Excel spreadsheet. Then the data was coded into IBM Statistical Package for the Social Sciences (SPSS) statistical software in order to be analysed. The results are presented below. They conform with the study's research objectives and research questions which were broadened and discussed in the literature review. The literature review helped in shaping the survey and interview questions. The responses for the interviews are then summarised and discussed at the end of the chapter.

4.2 SPSS

Statistical Package for the Social Sciences is a software application that academics in different fields use to analyse difficult data quantitatively (Hinton et al, 2014).

4.3 Frequency table

The target population's potential responses to a query throughout the data-gathering process are depicted in the frequency table. The frequency table used in this presentation displays the number and percentage of students who took part in the study. The number of participants is displayed as a percentage in the percentage column. The ‘frequency’ column shows the same information in numbers as opposed to percentages like the ‘percent column’. The percentages are shown in the column labelled ‘Valid percentage,’ but instances where the data is missing are excluded.

4.4 Data results

The researcher coded the data into numerical forms with labels in order to formulate responses into accurate statistical data. Frequencies and percentages were utilised to gain results from the collected data. The Likert scale was employed to get the participants to agree, disagree or remain neutral on a specific statement. The responses were then coded from 1 to 5, with 1 representing ‘Strongly Agree’; 2 representing ‘Agree’; 3 representing ‘Neither Agree nor Disagree’; 4 representing ‘Disagree’ and 5 representing ‘Strongly Disagree’ respectively.

The results are then displayed in frequencies and percentages while showing the mean, median, mode, and standard deviation of each frequency table.

The mean, sometimes referred to as the average, provides a sense of what a typical score may look like. For symmetric distributions, the mean serves as a reliable indicator of central tendency. It is calculated by dividing the total number of scores in the data set by the number of scores (Verma, 2013).

The median is the score that falls in the midpoint of the data set's order of magnitude. Since it is a positional average, the extreme scores have no bearing on it (Verma, 2013).

The score that appears the most frequently in a set of data is known as the mode while the square root of the variance is referred to as the ‘standard deviation’. It gauges the variation in a group of observations. (Verma, 2013).

4.5 Demographics of the third-and fourth-year students

4.5.1 Gender

The table below shows the gender of the participants. This is to note the number of male and female students and better understand their demographics. This may also be useful should there be a further study that consider if more females are venturing into entrepreneurship than their male counterparts having passed through the same entrepreneurship education of the same institution.

Table 4-1 Gender of the respondents

Statistics

Gender

N	Valid	126
	Missing	0
Mean		1.61

Gender

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Male	49	38.9	38.9	38.9
	Female	77	61.1	61.1	100.0
	Total	126	100.0	100.0	

Table 4.1 above illustrates that there are more female respondents than male. Out of the 126 participants, 77 were female; that is, 61.1% of the total participants were female. The remaining 49, namely 38.9% were male.

4.5.2 Age group

In the table below, the participants were categorised into different age groups rather than collating the individual ages of each participant. The participants were put into 4 age categories:

Category 1: Below 18

Category 2: 18 – 27

Category 3: 28 – 37 and

Category 4: Above 37.

Table 4-2 Respondents' age group

Age group

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Below 18	1	.8	.8	.8
	18 - 27	99	78.6	78.6	79.4
	28 - 37	21	16.7	16.7	96.0
	Above 37	5	4.0	4.0	100.0
	Total	126	100.0	100.0	

Mean = 2.24; Median = 2.00; Mode = 2; Standard Deviation = .528

Table 4.2 shows the different age categories or age groups that the participants fall into. Only One participant fell into the 'Below 18' category, representing 0.8% of the population. 99 participants fell into the '18 to 27' category, representing 78.6% of the population; 21 participants fell into the '28 to 37' category, representing 16.7%; while 5 participants were above 37, representing 4.0% of the population.

4.5.3 Qualification in view

The table below illustrates the qualification that the students (participants) are aiming toward. That is, the third years are in the final year of their National Diplomas, while the fourth years are nearing the completion of their Bachelors of Technology (BTech).

It must be noted that as at the time a majority of participants filled the survey, the fourth years students were completing their BTech qualification. However, at the time this data presentation and analysis were made, the university no longer offered the BTech qualification.

Table 4-3 Qualification respondents aim toward

Qualification in View

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	National Diploma	99	78.6	78.6	78.6
	Bachelor of Technology	27	21.4	21.4	100.0
	Total	126	100.0	100.0	

Mean = 1.21; Median = 1.00; Mode = 1; Standard Deviation = .412

Table 4.3 above shows that a majority, that is, 99 participants (78.6%) were National Diploma students, while 27 participants, namely 21.4% were completing their Bachelors (BTech) in entrepreneurship education. This result shows that not all the students who completed their National Diplomas continued with their Bachelors.

4.5.4 Average household income

The next results indicate the average household income of the participants. This was done to determine if some of the participants came from households with enough income to support their entrepreneurship uptake. This was done by dividing the participants into 5 categories of income earnings. These categories were;

Category 1: R0 to R24 999 earnings per annum,

Category 2: R25 000 to R49 999 earnings per annum

Category 3: R50 000 to R99 999 earnings per annum

Category 4: R100 000 to R249 999 earnings per annum, and;

Category 5: R250 000 and above.

Table 4-4 Household income

Average Household Income

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	R0- R24 999	58	46.0	46.0	46.0
	R25 000 - R49999	18	14.3	14.3	60.3
	R50 000 - R99 999	17	13.5	13.5	73.8
	R100 000 - R249 999	28	22.2	22.2	96.0
	R250k and above	5	4.0	4.0	100.0
	Total	126	100.0	100.0	

Mean = 2.24; Median = 2.00; Mode = 1; Standard Deviation = 1.341

58 out of the 126 participants, that is, 46.0%, came from households with an income between R0 to R24 999. 18 (14.3%) of the participants were from households with a yearly income of between R25 000 to R49 999. A further 17 participants (13.5%) came from households with yearly earnings of between R50 000 and R99 999, while 28 participants, namely 22.2%, came from households with a yearly income of between R100 000 and R249 999. The remaining 5 participants (4.0%) came from homes where the yearly household earnings were over R250 000.

This shows that a majority of the students (58%) were from low-income homes where the financial support needed to encourage their entrepreneurship uptake was lacking.

4.6 The decision to study entrepreneurship

This section of the survey was designed to test how many of the participants chose to study entrepreneurship as a course from the onset, as opposed to those who took the course because it was the only option available to them; or because the course was chosen for them by the university, a friend or a family member. A Likert scale was deployed to gauge the responses of the participants to determine the extent to which they agreed or disagreed with the statements in the questionnaire.

Table 4-5 I chose entrepreneurship as my first-choice course of study

I chose entrepreneurship as my first-choice course of study

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	29	23.0	23.0	23.0
	Agree	33	26.2	26.2	49.2
	Neither Agree nor Disagree	8	6.3	6.3	55.6
	Disagree	49	38.9	38.9	94.4
	Strongly Disagree	7	5.6	5.6	100.0
	Total	126	100.0	100.0	

Median = 3.00; Mode = 4; Standard Deviation = 1.326

In table 4.5, 29 participants constituting 23.0% of the population strongly agreed, while 33 (26.2) agreed that they chose entrepreneurship as their first-choice of study. That makes up a total of 62 (49.2%) out of the 126 participants who agreed that they chose entrepreneurship as their first-choice course of study.

8, that is, 6.3% of the participants, chose to neither agree nor disagree with the statement.

Of the remaining participants, 49 (38.9%) disagreed with the statement, while another 7 respondents constituting 5.6% of the population strongly disagreed. This means that a total of 56 (44.5%) participants disagreed with the statement.

Therefore, 49.2% of the population (62 participants) agreed; 44.5% (56 participants) disagreed while 6.3% (8 participants) were undecided, that is, they neither agreed nor disagreed.

Table 4-6 I chose entrepreneurship because my first choice was not available

In table 4.6 (below), of the 126 participants, 15 (11.9%) strongly agreed that they chose entrepreneurship because their first choice was not available. 33 (26.2%) agreed; 13

participants (10.3%) neither agreed nor disagreed. In contrast, 47 (37.3%) disagreed while 18 participants (14.3%) strongly disagreed.

This means that the sum of those who agreed (Strongly agree plus Agree) with the statement was 48 in total, which constitutes 38.1% of the sample. Those undecided, that is, 'Neither agreed nor disagreed' were 10.3% of the population (13 participants) while the total of those who strongly disagreed/disagreed was 51.6% of the population (65 participants). Therefore, the majority (51.6%) disagreed with the statement.

I chose entrepreneurship because my first choice was not available

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	15	11.9	11.9	11.9
	Agree	33	26.2	26.2	38.1
	Neither Agree nor Disagree	13	10.3	10.3	48.4
	Disagree	47	37.3	37.3	85.7
	Strongly Disagree	18	14.3	14.3	100.0
	Total	126	100.0	100.0	

Mean = 3.16; Median = 4.00; Mode = 4; Standard Deviation = 1.293

Table 4-7 Entrepreneurship was chosen for me by my institution/family/friend

Entrepreneurship was chosen for me by the institution/family/friend

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	8	6.3	6.3	6.3
	Agree	30	23.8	23.8	30.2
	Neither Agree nor Disagree	11	8.7	8.7	38.9

	Disagree	43	34.1	34.1	73.0
	Strongly Disagree	34	27.0	27.0	100.0
	Total	126	100.0	100.0	

Mean = 3.52; Median = 4.00; Mode = 4; Standard Deviation = 1.288

In the above table (table 4.7) 8 students (6.3%) strongly agreed, 30 students (23.8%) agreed while 11 students (8.7%) neither agreed nor disagreed.

On the other hand, 43 students (34.1%) strongly disagreed with the statement while the remaining 34 students who participated (27.0%) strongly disagreed.

In total, 38 students (a combination of strongly agreed and agreed) agreed with the statement, namely 30.1% of the population. 8.7% (11 students) neither agreed nor disagreed while 61% (77 students), a majority disagreed (a combination of strongly disagreed and disagreed).

Table 4-8 I chose entrepreneurship because it was the only option

I chose entrepreneurship because it was the only option available

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	7	5.6	5.6	5.6
	Agree	26	20.6	20.6	26.2
	Neither Agree nor Disagree	12	9.5	9.5	35.7
	Disagree	54	42.9	42.9	78.6
	Strongly Disagree	27	21.4	21.4	100.0
	Total	126	100.0	100.0	

Mean = 3.54; Median = 4.00; Mode = 4; Standard Deviation = 1.198

Table 4.8 indicates that, of the 126 students who participated in the survey, 7 students (5.6%) strongly agreed that they chose entrepreneurship because it was the only option available to them. 26 students (20.6%) agreed with this while 12 students (9.5%) neither agreed nor disagreed.

However, 54 students disagreed that they chose entrepreneurship because it was the only option available to them. 27 students (21.4%) strongly disagreed.

Table 4-9 I did not choose entrepreneurship

I did not choose entrepreneurship

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	6	4.8	4.8	4.8
	Agree	21	16.7	16.7	21.4
	Neither Agree nor Disagree	15	11.9	11.9	33.3
	Disagree	45	35.7	35.7	69.0
	Strongly Disagree	39	31.0	31.0	100.0
	Total	126	100.0	100.0	

Mean = 3.71; Median = 4.00; Mode = 4; Standard Deviation = 1.206

Table 4.9 displays the results of the students on the statement testing how many of them did not choose entrepreneurship when they got admission into the university.

Out of 126 students, 6 (4.8%) strongly agreed with the statement; 21 students (16.7%) agreed; 15 students (11.9%) neither agreed nor disagreed; 45 (35.7%) disagreed and 39 students (31.0%) strongly disagreed with the statement.

This shows that a significant number of the participating students (84 students; 66.7%) disagreed with the statement. This signifies that a majority of the students did choose entrepreneurship upon entry into the university and proves that the majority had some level of interest in the course.

4.7 Understanding entrepreneurship

This section of the questionnaire was aimed at gauging the participating students' general knowledge of entrepreneurship. As stated earlier, the statements were designed to determine to what extent the students agree or disagree with each statement.

Table 4-10 Entrepreneurship helps create new ventures and profit.

Entrepreneurship helps create new ventures and profit

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	61	48.4	48.4	48.4
	Agree	60	47.6	47.6	96.0
	Neither Agree nor Disagree	3	2.4	2.4	98.4
	Disagree	2	1.6	1.6	100.0
	Total	126	100.0	100.0	

Mean = 1.57; Median = 2.00; Mode = 1; Standard Deviation = .625

In the table above (table 4.10), the results of the statement 'Entrepreneurship helps create new ventures and profit' shows that 61 students (48.4%) strongly agreed with the statement; 60 students (47.6%) agreed while 3 students (2.4%) neither agreed nor disagreed. Only 2 students, that is, 1.6% disagreed, while none of the participants strongly disagreed.

The majority of the students, that is, 121 students (96%) out of the 126 students that participated agree with the statement that entrepreneurship helps create new ventures and profit. However, 3 students (2.4%) neither agreed nor disagreed while only 2 (1.6%) disagreed.

Table 4-11 Entrepreneurship helps reduce unemployment

Entrepreneurship helps reduce unemployment

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	65	51.6	51.6	51.6
	Agree	53	42.1	42.1	93.7
	Neither Agree nor Disagree	4	3.2	3.2	96.8
	Disagree	4	3.2	3.2	100.0
	Total	126	100.0	100.0	

Mean = 1.58; Median = 1.00; Mode = 1; Standard Deviation = .708

The table above (table 4.11) showcases the results from the questionnaire statement on entrepreneurship helping to reduce unemployment. 51.6% of the population (65 students) strongly agreed. 42.1%, i.e., 53 students agreed while 4 students (3.2%) neither agreed nor disagreed. On the other hand, 4 students (another 3.2%) disagreed with the statement. None of the participants 'strongly disagreed' with the statement.

This shows that a majority of the students (118 students; 93.7%) believe that entrepreneurship does help reduce unemployment.

Table 4-12 Entrepreneurship helps the economy grow

Entrepreneurship helps the economy grow

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	69	54.8	54.8	54.8
	Agree	46	36.5	36.5	91.3
	Neither Agree nor Disagree	8	6.3	6.3	97.6
	Disagree	3	2.4	2.4	100.0
	Total	126	100.0	100.0	

Mean = 1.56; Median = 1.00; Mode = 1; Standard Deviation = .721

In table 4.12 above, on whether entrepreneurship helps to grow the economy, 69 (54.8%) of the students strongly agreed, 46 (36.5%) agreed and 8 students (6.3%) neither agreed nor disagreed.

Disagreeing with the statement are 3 students who form 2.4% of the total sample.

This suggests that 86.6% of the 126 students who participated agreed that entrepreneurship encourages economic growth.

Table 4-13 Entrepreneurship helps reduce crime through job creation

Entrepreneurship helps reduce crime through job creation

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	55	43.7	43.7	43.7
	Agree	54	42.9	42.9	86.5
	Neither Agree nor Disagree	12	9.5	9.5	96.0
	Disagree	5	4.0	4.0	100.0
	Total	126	100.0	100.0	

Mean = 1.74; Median = 2.00; Mode = 1; Standard Deviation = .792

The above table (table 4.13) presents the results on the statement about entrepreneurship helping to reduce crime through the creation of jobs.

Out of the 126 participating students, 55, namely 43.7% of the population, strongly agreed with the statement. Another group of 54 students (42.9) similarly agreed with the statement while 12 students (9.5%) neither agreed nor disagreed with the statement. A total of 5 students (4.0%) were of the opinion that entrepreneurship does not help reduce crime through job creation by disagreeing with the statement.

Table 4-14 Entrepreneurship helps encourage innovation and new technologies

Entrepreneurship helps encourage innovation and new technologies

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	69	54.8	54.8	54.8
	Agree	48	38.1	38.1	92.9
	Neither Agree nor Disagree	4	3.2	3.2	96.0
	Disagree	4	3.2	3.2	99.2
	Strongly Disagree	1	.8	.8	100.0
	Total	126	100.0	100.0	

Mean = 1.57; Median = 1.00; Mode = 1; Standard Deviation = .774

In table 4.14, out of the 126 participating students, 69 students, a percentage of 54.8, strongly agreed with the statement that entrepreneurship encourages innovation and new technologies. 48 other students (38.1%) agreed and 4 others (3.2%) neither agreed nor disagreed. Another group of 4 (3.2%) students disagreed that entrepreneurship helps encourage innovation and new technologies. Only 1 student (0.8%) strongly disagreed.

This shows that a majority of the students, precisely 117 students (92.9%) agree that entrepreneurship does indeed contribute to innovation and new technologies.

4.8 Entrepreneurship education

Ravasi and Turati, (2005) view entrepreneurship education as the learning procedures used in the development or establishment of new companies.

It is possible to both teach and employ entrepreneurship to encourage it in a community. Additionally, formal entrepreneurship courses have been linked to influencing students' motivation and interest in entrepreneurship (Badulescu et al. 2014; Linan, 2004; Morris et al.,1994).

This section of the questionnaire was designed to gauge the extent to which the participants agree or disagree with the statements on what entrepreneurship education encompasses.

Table 4-15 Entrepreneurship education enables the start-up of a business

Entrepreneurship education enables the start-up of a business

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	57	45.2	45.2	45.2
	Agree	62	49.2	49.2	94.4
	Neither Agree nor Disagree	4	3.2	3.2	97.6
	Disagree	2	1.6	1.6	99.2
	Strongly Disagree	1	.8	.8	100.0
	Total	126	100.0	100.0	

Mean = 1.63; Median = 2.00; Mode = 2; Standard Deviation = .700

Results for the claim that entrepreneurship facilitates business start-up are shown in the table above (table 4.15). Out of the 126 students who participated, 57, or 45.2% of the group, strongly agreed with the statement. Another set of 62 students (49.2%) 'agreed' as well. While 4 students (3.2%) neither agreed nor disagreed with the statement. A total of 2 students (1.6%) were of the opinion that entrepreneurship does not facilitate the start-up of a business by disagreeing with the statement.

The majority of the students (119 students; 94.4%) agree that entrepreneurship education enables entrepreneurship uptake.

Table 4-16 Entrepreneurship education is important for economic growth

Entrepreneurship education is important for economic growth

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	58	46.0	46.0	46.0
	Agree	55	43.7	43.7	89.7
	Neither Agree nor Disagree	13	10.3	10.3	100.0
	Total	126	100.0	100.0	

Mean = 1.64; Median = 2.00; Mode = 1; Standard Deviation = .663

Out of 126 students, 58 (46.0%) strongly agree that entrepreneurship education is crucial for economic growth, according to the findings in Table 4.16 above. Additionally, 55 students (43.7%) agreed with this assertion. 10.3% of the class, or 13 students, were unable to decide whether to agree or disagree with the statement. The statement was agreed upon by all 126 participating students.

Table 4-17 Entrepreneurship education speeds up the search for work upon graduation

Entrepreneurship education speeds up the search for work upon graduation

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	25	19.8	19.8	19.8
	Agree	41	32.5	32.5	52.4
	Neither Agree nor Disagree	36	28.6	28.6	81.0
	Disagree	21	16.7	16.7	97.6
	Strongly Disagree	3	2.4	2.4	100.0
	Total	126	100.0	100.0	

Mean = 2.49; Median = 2.00; Mode = 2; Standard Deviation = 1.064

In table 4.17 above, 25 students (19.8%) of the 126 students strongly agreed that entrepreneurship education speeds up the search for jobs upon the completion of their studies. 36 students (28.6%) did not agree or disagree with the statement, while another 41 students (32.5%) agreed.

However, 21 students (16.7%) disagreed with the assertion, with to 3 students (2.4%) who strongly disagreed.

The majority, 66 students (52.3%) agreed that entrepreneurship education does in fact, help speed up the search for work upon graduation.

Table 4-18 Entrepreneurship education facilitates creative thinking

Entrepreneurship education facilitates creative thinking

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	60	47.6	47.6	47.6
	Agree	56	44.4	44.4	92.1
	Neither Agree nor Disagree	9	7.1	7.1	99.2
	Disagree	1	.8	.8	100.0
	Total	126	100.0	100.0	

Mean = 1.61; Median = 2.00; Mode = 1; Standard Deviation = .657

Table 4.18 above shows that 60 students (47.6%) strongly agree with the statement that entrepreneurship education facilitates creative thinking. 56 students (44.4%) agree with the statement as well. However, 9 students (7.1%) neither agreed nor disagreed while there was 1 (0.8%) student who disagreed. No student strongly disagreed.

The majority of the students, specifically 116 students (92%) believe that entrepreneurship education enables creative thinking.

4.9 Entrepreneurial intention

Entrepreneurial intention can be broadly defined as an individual's aim to pursue self-reliance or self-employment. This is supported by Thompson's (2009) claim that it is a person's wish or will to become a business owner or their desire to be self-employed.

This section of the surveys carried out seeks to gauge that 'desire', that is, the student's intention to pursue entrepreneurial outcomes before, during and after their entrepreneurship education.

Table 4-19 Intention before university was to start a business

My intention before university was to start a business

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	23	18.3	18.3	18.3
	Agree	23	18.3	18.3	36.5
	Neither Agree nor Disagree	22	17.5	17.5	54.0
	Disagree	54	42.9	42.9	96.8
	Strongly Disagree	4	3.2	3.2	100.0
	Total	126	100.0	100.0	

Mean = 2.94; Median = 3.00; Mode = 4; Standard Deviation = 1.215

In table 4.19 above, the results show that 23 students (18.3%) strongly agree that they had the desire and/or intention to start a business even before gaining admission into the university. Another 23 students (18.3%) agreed with this, while 22 students neither agreed nor disagreed. However, 54 students (42.9%) disagreed with this statement. With 4 students strongly disagreeing to the statement.

This shows that a majority of the participating students (46.1%; 58 students in total) had no intention or desire to start up a business before they started down the path of entrepreneurship education.

Table 4-20 Intention before university was not to start a business

My intention before university was not to start a business

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	5	4.0	4.0	4.0
	Agree	45	35.7	35.7	39.7
	Neither Agree nor Disagree	23	18.3	18.3	57.9
	Disagree	34	27.0	27.0	84.9
	Strongly Disagree	19	15.1	15.1	100.0
	Total	126	100.0	100.0	

Mean = 3.13; Median = 3.00; Mode = 2; Standard Deviation = 1.175

The above table (table 4.20) illustrates the number of the students who ‘Strongly agree’, ‘Agree’, ‘Neither agree nor disagree’, ‘Disagree’ and ‘Strongly disagree’.

Of the 126 students, 5 (4.0%) strongly agreed that they did not have the intention to start a business before university. Another 45 students (35.7%) agreed with the statement and 23 students (18.3%) neither agreed nor disagreed.

34 students (27.0%) however disagreed with the statement, while another 19 students (15.1%) strongly agreed.

This means that a total of 50 students, the sum of those who agreed and strongly agreed, (39.7%) attested to not having the intention to start a business before they started their studies at the university. 23 students (18.3%) were undecided as they neither agreed nor disagreed while a total of 53 students (42.1%) disagreed with the statement. This means that a majority of the students, that is, 42.1% of the sample (53 students, a combination of those who disagreed or strongly disagreed) had the intention before their university studies of starting a business.

Table 4-21 Intention after university is now to start a business

After starting university, my intention is now to start a business

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	27	21.4	21.4	21.4
	Agree	46	36.5	36.5	57.9
	Neither Agree nor Disagree	30	23.8	23.8	81.7
	Disagree	22	17.5	17.5	99.2
	Strongly Disagree	1	.8	.8	100.0
	Total	126	100.0	100.0	

Mean = 2.40; Median = 2.00; Mode = 2; Standard Deviation = 1.036

Table 4.21 above illustrates the results from the statement that the students had the intention of starting a business after they had started entrepreneurship education at the university. Of the 126 students, 27 (21.4%) strongly agreed with the statement. Another 46 students, namely 36.5%, agreed with the statement. 30 students (23.8%) neither agreed nor disagreed. 22 students (i.e., 17.5%) however, disagreed with the statement while only 1 student (0.8%) strongly disagreed.

It follows that a total of 73 students (57.9%), which is the majority of the population, agreed that they had the intention of starting a business after they had started entrepreneurship as their course of study. The 73 students were the sum of those who chose ‘Agree’ and ‘Strongly agree’. 30 students remained neutral, that is, they neither agreed nor disagreed with the statement while a total of 23 students (18.3%) disagreed with the statement.

Table 4-22 Intention to start a business as a result of entrepreneurship education

As a result of my education, I intend to start a business after university

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	33	26.2	26.2	26.2
	Agree	50	39.7	39.7	65.9

	Neither Agree nor Disagree	23	18.3	18.3	84.1
	Disagree	19	15.1	15.1	99.2
	Strongly Disagree	1	.8	.8	100.0
	Total	126	100.0	100.0	

Mean = 2.25; Median = 2.00; Mode = 2; Standard Deviation = 1.033

In Table 4.22 above, the results show that 33 students (26.2%) out of the 126 students strongly agreed that they intended to start a business venture after university as a result of their entrepreneurship education. 50 students (39.7%) also agreed with this statement. 23 students were undecided, that is, they neither agreed nor disagreed with the statement. To the contrary, 19 students (15.1%) disagreed with the statement, while 1 student (0.8%) strongly disagreed.

This translates into a majority of the students (83 students and 65%) agreeing to the statement which indicates that their entrepreneurship education had resulted in their having the intention of becoming a business owner after university.

23 (18.3%) students remained undecided by neither agreeing nor disagreeing with the statement, while a total of 20 students (15.9%) were of the opinion that their entrepreneurship education so far had not resulted in an intention to start a business after university.

Table 4-23 My intention is to get a job

My intention is to get a job

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	23	18.3	18.3	18.3
	Agree	33	26.2	26.2	44.4
	Neither Agree nor Disagree	42	33.3	33.3	77.8
	Disagree	16	12.7	12.7	90.5
	Strongly Disagree	12	9.5	9.5	100.0
	Total	126	100.0	100.0	

Mean = 2.69; Median = 3.00; Mode = 3; Standard Deviation = 1.190

Table 4.23 shows the result of the number of students who agreed, disagreed or remained neutral (neither agreed nor disagreed) on whether their intention was to get a job after completing their studies.

Of the 126 participants, 23 (18.3%) students strongly agreed with the statement regarding their intention to get a job after their studies. 33 students (26.2%) agreed while 42 students (33.3%) neither agreed nor disagreed.

Another 16 students (12.7%) disagreed with the statement while a further 12 (9.5%) strongly disagreed.

Therefore, a total (sum of strongly agreed and agreed) of 56 students (44.5%) agreed that they intended to seek employment upon graduation. 42 students (33.3%) neither agreed nor disagreed while 28 students (22.2%) attested that they would not be seeking a job upon graduation.

4.10 Social values

This section sought to determine whether the respondents' intention to pursue entrepreneurship or not had been influenced by their family background or if there had been a history of entrepreneurship in their families.

Table 4-24 Respondents come from a family where the father is/was an entrepreneur

I come from a family where my father is/was an entrepreneur

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	12	9.5	9.5	9.5
	Agree	14	11.1	11.1	20.6
	Neither Agree nor Disagree	6	4.8	4.8	25.4
	Disagree	72	57.1	57.1	82.5
	Strongly Disagree	22	17.5	17.5	100.0
	Total	126	100.0	100.0	

Mean = 3.62; Median = 4.00; Mode = 4; Standard Deviation = 1.179

In the above table (table 4.24), the results show that 12 students (9.5%) strongly agreed that they were from a family where the father was or had been an entrepreneur. A further 14 students (11.1) also agreed. 6 students (4.8%) neither agreed nor disagreed. Furthermore, 72 others (57.1%) disagreed while another 22 students (17.5%) strongly disagreed.

This translates into a majority of the students (94 students; 74.6%) disagreeing that they had a father who was or had been an entrepreneur. This means that the 26 students (20.6%) who agreed with the statement were from families where the father was or had been an entrepreneur. The remaining 6 students (4.8%) remained neutral by neither agreeing nor disagreeing.

Table 4-25 Respondents come from a family where the mother is/was an entrepreneur

I come from a family where my mother is/was an entrepreneur

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	10	7.9	7.9	7.9
	Agree	24	19.0	19.0	27.0
	Neither Agree nor Disagree	7	5.6	5.6	32.5
	Disagree	58	46.0	46.0	78.6
	Strongly Disagree	27	21.4	21.4	100.0
	Total	126	100.0	100.0	

Mean = 3.54; Median = 4.00; Mode = 4; Standard Deviation = 1.244

Table 4.25 shows the results of the questionnaire statement, ‘I come from a family where the mother is or was an entrepreneur’.

Of the 126 participating students, 10 students (7.9%) strongly agreed, while a further 24 students (19.0%) agreed that they came from a home where the mother was/had been an entrepreneur.

7 students (5.6%) were indifferent as they chose neither agreed nor disagreed, while 58 students (46.0%) and another 27 students (21.4%) chose disagree and strongly disagree respectively.

This shows that a majority of the students, specifically 67.4% (85 students), were not from homes where the mother is/had been an entrepreneur as they disagreed with the statement.

Table 4-26 Respondents come from a family where both parents are/were entrepreneurs

I come from a family where both parents are entrepreneurs

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	7	5.6	5.6	5.6
	Agree	6	4.8	4.8	10.3
	Neither Agree nor Disagree	5	4.0	4.0	14.3
	Disagree	76	60.3	60.3	74.6
	Strongly Disagree	32	25.4	25.4	100.0
	Total	126	100.0	100.0	

Mean = 3.95; Median = 4.00; Mode = 4; Standard Deviation = .995

In the table above (table 4.26), the results show the number of candidates who agreed, disagreed or were neutral on if they were from families where both parents were, or had been entrepreneurs.

While 7 (5.6%) and 6 (4.85) of the 126 students strongly agreed and agreed respectively, 5 students (4.0%) neither agreed nor disagreed. 76 students (60.3%) on the other hand disagreed with the statement while 32 others (25.4%) strongly disagreed with the statement that they came from a family where both parents were entrepreneurs.

The students who were from homes where neither the father nor the mother were/had been entrepreneurs were in the majority – a total of 108 students (85.7% of students who participated in the survey).

Table 4-27 Respondents come from a family where a relative is/was an entrepreneur

I come from a family where a relative is/was an entrepreneur

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	16	12.7	12.7	12.7
	Agree	41	32.5	32.5	45.2
	Neither Agree nor Disagree	3	2.4	2.4	47.6
	Disagree	44	34.9	34.9	82.5
	Strongly Disagree	22	17.5	17.5	100.0
	Total	126	100.0	100.0	

Mean = 3.12; Median = 4.00; Mode = 4; Standard Deviation = 1.372

Table 4.27 above shows us that 16 students (12.7%) strongly agreed that they came from a family where at least one relative was/had been an entrepreneur. 41 others (32.5%) agreed with the statement as well. 3 students (2.4%) neither agreed nor disagreed. To the contrary, 44 students (34.9%) disagreed while 22 students (17.5%) strongly disagreed with the statement.

This translates into majority of the students (66 students; 52.4%) who did not belong to a family where a relative was/had been an entrepreneur.

Table 4-28 Respondents come from a family with no entrepreneur(s)

I come from a family with no entrepreneurs

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	31	24.6	24.6	24.6
	Agree	26	20.6	20.6	45.2
	Neither Agree nor Disagree	8	6.3	6.3	51.6

	Disagree	33	26.2	26.2	77.8
	Strongly Disagree	28	22.2	22.2	100.0
	Total	126	100.0	100.0	

Mean = 3.01; Median = 3.00; Mode = 4; Standard Deviation = 1.536

The table above (table 4.28) illustrates the results from the statement test to see how many of the students came from a family with no entrepreneurs by determining to what extent they agreed or disagreed with the statement.

24.6% of the 126 students (31 students) strongly agreed that they indeed came from a family with no entrepreneurs, while a further 20.6% (26 students) agreed. 6.3% (8 students) neither agreed nor disagreed with the statement while 26.2% (33 students) and 22.2% (28 students) disagreed and strongly disagreed with the statement respectively.

The majority, 48% (61 students), come from a family with no entrepreneurs. This means that the possibility of their being influenced by a family member who was an entrepreneur to want to pursue entrepreneurial outcomes was lower than those who came from a family with one or more entrepreneurs, who may have influenced their having the desire to pursue entrepreneurship.

4.11 Fear of failure versus hope of success

One of the characteristics of entrepreneurs is that they are risk takers. They are not only willing to take risks but they are ready to manage those risks while also being willing to accept failure (Miller, 2020).

This section was designed to gauge the extent to which factors such as the fear of failure and/or the hope of success influence the participants' intention to pursue entrepreneurship outcomes upon graduation.

Figure 2 Bar chart showing overall results of this section in percentages

To what extent do you agree or disagree with each of the following statements? (Please select one answer per row)

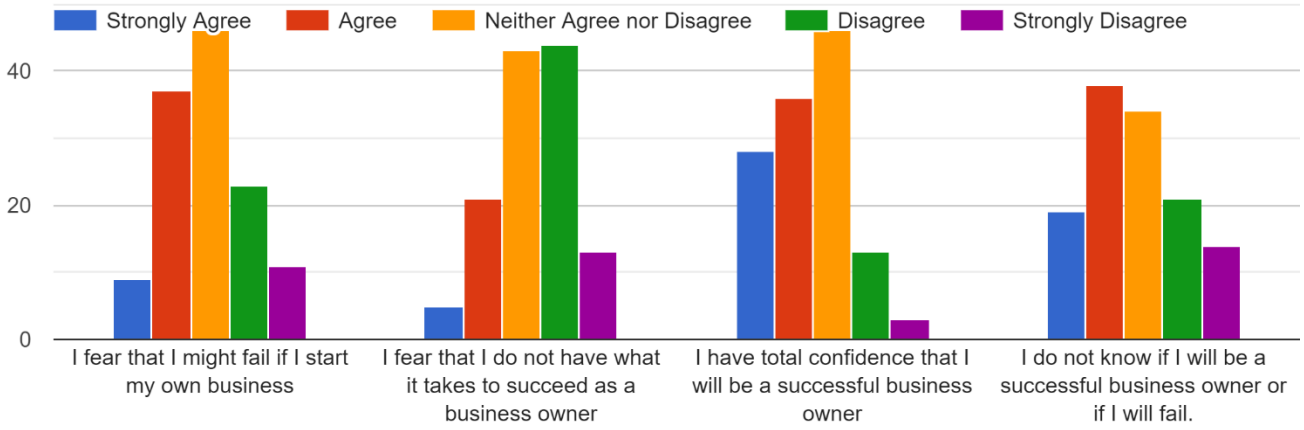


Table 4-29 Fear of failure if respondents start their own business

I fear that I might fail if I start my own business

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	9	7.1	7.1	7.1
	Agree	37	29.4	29.4	36.5
	Neither Agree nor Disagree	46	36.5	36.5	73.0
	Disagree	23	18.3	18.3	91.3
	Strongly Disagree	11	8.7	8.7	100.0
	Total	126	100.0	100.0	

Mean = 2.92; Median = 3.00; Mode = 3; Standard Deviation = 1.055

The table above (table 4.29) illustrates the results from the above statement which was designed to analyse the extent to which participants agreed or disagreed on the fear of failure should they take up starting a venture.

9 students (7.1%) strongly agreed that they feared they might fail if they started their own businesses. 37 others (29.4%) also agreed with the statement while 46 students (36.5%) neither agreed nor disagreed.

Disagreeing with the statement, 23 (18.3%) students expressed that they disagreed while another 11 (8.7%) strongly disagreed.

The total number of those who agreed (sum of 'strongly agree' and 'agree') was 46 students (36.5%) which was an exact match of those who neither agreed nor disagreed, namely 46 students (36.5%). This shows that those who have no fear of failing should they start their own businesses are in the minority, namely 34 students (27%).

Table 4-30 Fear of not having what it takes to succeed as a business owner

I fear that I do not have what it takes to succeed as a business owner

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	5	4.0	4.0	4.0
	Agree	21	16.7	16.7	20.6
	Neither Agree nor Disagree	43	34.1	34.1	54.8
	Disagree	44	34.9	34.9	89.7
	Strongly Disagree	13	10.3	10.3	100.0
	Total	126	100.0	100.0	

Mean = 3.31; Median = 3.00; Mode = 4; Standard Deviation = 1.000

In table 4.30, the statement in this part of the questionnaire was intended to measure the confidence of the participants (i.e., the third- and fourth-year students) have in themselves in succeeding as business owners. 5 students (4.0%) strongly agreed that they feared they did not have what it takes to succeed as business owners. 21 students (16.7%) also agreed while

43 (34.1%) neither agreed nor disagreed with the statement. 44 (34.9%) students however, disagreed, while 13 students (10.3%) strongly disagreed.

The majority of the students, namely 45.2% of the total population (57 students), attested that they had no such fear by disagreeing with the statement.

Table 4-31 **Total confidence in being a successful business owner**

I have total confidence that I will be a successful business owner

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	28	22.2	22.2	22.2
	Agree	36	28.6	28.6	50.8
	Neither Agree nor Disagree	46	36.5	36.5	87.3
	Disagree	13	10.3	10.3	97.6
	Strongly Disagree	3	2.4	2.4	100.0
	Total	126	100.0	100.0	

Mean = 2.42; Median = 2.00; Mode = 3; Standard Deviation = 1.023

Table 4.31 above shows the results from the responses collected for the statement measuring the confidence the students have that they will be successful business owners. 28 candidates (22.2%) strongly agreed that they had total confidence in themselves in their pursuit of starting a business. 36 more participants (28.6%) also agreed with the statement. 46 students (36.5%) neither agreed nor disagreed. 13 students (10.3) and 3 others (2.4%) disagreed and strongly disagreed respectively.

The majority are those who agreed that they had total confidence in becoming successful business owners. A total of 50.8% of the population, i.e., 64 students, are in this majority group. A significant percentage (36.5%; 46 students) neither agreed nor disagreed. The students who believed that they didn't have confidence in becoming successful business owners were in the minority, 26 students (12.7%).

Table 4-32 Uncertainty on being a success or a failure

I do not know if I will be a successful business owner or if I will fail

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	19	15.1	15.1	15.1
	Agree	38	30.2	30.2	45.2
	Neither Agree nor Disagree	34	27.0	27.0	72.2
	Disagree	21	16.7	16.7	88.9
	Strongly Disagree	14	11.1	11.1	100.0
	Total	126	100.0	100.0	

Mean = 2.79; Median = 3.00; Mode = 2; Standard Deviation = 1.217

Table 4.32 shows that 19 students (15.1%) strongly agreed with the statement on not knowing if they will be successful business owners or not. 38 students (30.2%) agreed with the statement; while 34 students (27.0%) neither agreed nor disagreed with the statement, 21 students (16.7%) and another group of 14 students (11.1%) disagreed and strongly disagreed respectively.

The majority was made up of the group who agreed that they did not know if they would succeed or not, a total of 57 respondents (45.3%).

4.12 Entrepreneurship education curriculum

This section aims to investigate the perception of the students on the entrepreneurship education curriculum.

Figure 3 Bar chart showing the overall result of section 4.12

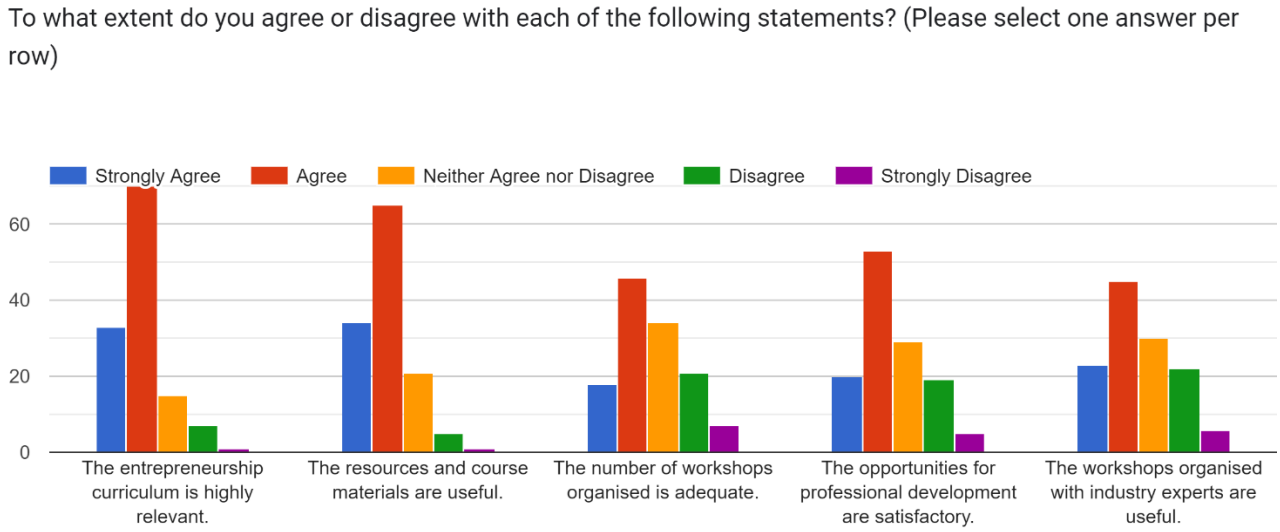


Table 4-33 The entrepreneurship curriculum is highly relevant

The entrepreneurship curriculum is highly relevant

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	33	26.2	26.2	26.2
	Agree	70	55.6	55.6	81.7
	Neither Agree nor Disagree	15	11.9	11.9	93.7
	Disagree	7	5.6	5.6	99.2
	Strongly Disagree	1	.8	.8	100.0
	Total	126	100.0	100.0	

Mean = 1.99; Median = 2.00; Mode = 2; Standard Deviation = .825

Table 4.33 above shows that 33 students (26.2%) strongly agreed that the entrepreneurship curriculum at the university was highly relevant. 70 students (55.6%) also agreed with the statement. 15 students (11.9%) neither agreed nor disagreed while 7 students (5.6%) and another student (1 student; 0.8%) disagreed and strongly disagreed respectively.

Thus, the majority of the students, namely 103 (81.8%) agreed that the entrepreneurship curriculum was highly relevant.

Table 4-34 The resources and course materials are useful

The resources and course materials are useful

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	34	27.0	27.0	27.0
	Agree	65	51.6	51.6	78.6
	Neither Agree nor Disagree	21	16.7	16.7	95.2
	Disagree	5	4.0	4.0	99.2
	Strongly Disagree	1	.8	.8	100.0
	Total	126	100.0	100.0	

Mean = 2.00; Median = 2.00; Mode = 2; Standard Deviation = .820

Table 4.34 displays results indicating the extent to which the above statement was agreed or disagreed with by the 126 students who participated in the surveys.

34 students (27.0%) strongly agreed with the statement while 65 students (51.6%) agreed with it. 21 students (16.7%) neither agreed nor disagreed. 5 students (4.0%) disagreed while just 1 student (0.8%) strongly disagreed.

The consensus was that the resources and course materials were useful since a majority of the participants agreed with the statement. In total, 99 students (78.6%) out of the 126 participants agreed with the statement.

Table 4-35 The number of workshops organised is adequate

The number of workshops organised is adequate

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	18	14.3	14.3	14.3
	Agree	46	36.5	36.5	50.8
	Neither Agree nor Disagree	34	27.0	27.0	77.8
	Disagree	21	16.7	16.7	94.4
	Strongly Disagree	7	5.6	5.6	100.0
	Total	126	100.0	100.0	

Mean = 2.63; Median = 2.00; Mode = 2; Standard Deviation = 1.094

In table 4.35 above, the participants were asked to what extent they agreed or disagreed that the number of entrepreneurship workshops organised by the university were adequate to influence their entrepreneurial intentions.

18 (14.3%) strongly agreed; 46 students (36.5%) agreed; 34 (27.0%) neither agreed nor disagreed. 21 students however, disagreed while a further 7 students strongly disagreed with the statement.

The majority of the students (64 students or 50.8%) agreed that the number of workshops was adequate.

Table 4-36 The opportunities for professional development are satisfactory

The opportunities for professional development are satisfactory

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	20	15.9	15.9	15.9
	Agree	53	42.1	42.1	57.9
	Neither Agree nor Disagree	29	23.0	23.0	81.0
	Disagree	19	15.1	15.1	96.0

	Strongly Disagree	5	4.0	4.0	100.0
	Total	126	100.0	100.0	

Mean = 2.49; Median = 2.00; Mode = 2; Standard Deviation = 1.056

Table 4.36 shows that 20 students (15.9%) strongly agreed that the university's entrepreneurship curriculum provided satisfactory opportunities for professional development. 53 other students (42.1%) agreed while 29 students (23.0%) neither agreed not disagreed.

19 students (15.1%) however, disagreed with the statement while 5 others (4.0%) strongly disagreed.

73 students (58%) agreeing with the statement affirms that the majority believed the statement to be true.

Table 4-37 The workshops organised with industry experts are useful

The workshops organised with industry experts are useful

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Strongly Agree	23	18.3	18.3	18.3
	Agree	45	35.7	35.7	54.0
	Neither Agree nor Disagree	30	23.8	23.8	77.8
	Disagree	22	17.5	17.5	95.2
	Strongly Disagree	6	4.8	4.8	100.0
	Total	126	100.0	100.0	

Mean = 2.55; Median = 2.00; Mode = 2; Standard Deviation = 1.121

Table 4.37 above shows the results from the responses collected for the statement measuring the extent to which the students agreed or disagreed with the statement on the usefulness of he workshops organised by the university's entrepreneurship department for the entrepreneurship students. 23 students (18.3%) strongly agreed that workshops were useful.

45 more participants (35.7%) also agreed with the statement. 30 students (23.8%) neither agreed nor disagreed. 22 students (17.5) and 6 others (4.8%) disagreed and strongly disagreed respectively.

The majority agreed that the workshops were in fact useful. A total of 54% of the population i.e., 68 students were in this majority group. A fair percentage (23.8%; 30 students) neither agreed nor disagreed. The students who believed that the workshops are not useful were in the minority at 28 students (22.3%).

4.13 Work experience

This section was designed to determine how much some work experience influenced the participants' desire to start their own businesses. It was designed to see if the following factors would have any form of influence on the students' decisions to start their own business or venture: being a part of an organisation; seeing how the organisation is run; the operations; the chain of command and the important decision-making by the top management of the organisation that a student may have been privileged to work in.

Table 4-38 Work before starting university studies

I had worked before starting university studies

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Yes	78	61.9	61.9	61.9
	No	48	38.1	38.1	100.0
	Total	126	100.0	100.0	

Mean = 1.38; Median = 1.00; Mode = 1; Standard Deviation = .488

As table 4.38 above shows, the students were required to answer either 'Yes' or 'No' to the statement designed to determine how many of the third and fourth years had had some work experience prior to their entrepreneurship education uptake.

The majority of the participating students i.e., 78 students (61.9%) had worked at some point before starting at the university level. 48 students (38.1%) had no previous work experience.

Table 4-39 Working and studying at the same time

I am working and studying at university at the same time

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Yes	59	46.8	46.8	46.8
	No	67	53.2	53.2	100.0
	Total	126	100.0	100.0	

Mean = 1.53; Median = 2.00; Mode = 2; Standard Deviation = .501

Table 4.39 displays the results of the students to the statement that they are working and studying at the same time. 59 students (46.8%) agreed that they were juggling work and studies while 67 students (53.2%), a majority, responded in the negative.

Table 4-40 No work experience at all

I have no work experience at all

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Yes	31	24.6	24.6	24.6
	No	95	75.4	75.4	100.0
	Total	126	100.0	100.0	

Mean = 1.53; Median = 2.00; Mode = 2; Standard Deviation = .501

Table 4.40 illustrates the responses of the participating students on whether they had had work experience or not. The students with no work experience at all were in the minority, 31 students in total, namely 24.6% of the 126 students who answered the questionnaire.

95 students (75.4%) on the other hand indicated that the had had some form work experience either currently (while studying) or in the past (before their studies).

Table 4-41 Work experience will positively encourage respondents to become business owner(s)

My work experience will positively encourage me to become a business owner

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Yes	73	57.9	61.9	61.9
	No	45	35.7	38.1	100.0
	Total	118	93.7	100.0	
Missing	System	8	6.3		
Total		126	100.0		

Mean = 1.38; Median = 1.00; Mode = 1; Standard Deviation = .488

Table 4.41 displays the result from the statement on whether the students' previous work experience will positively encourage them in their pursuit of becoming business owners.

It is to be noted that in this section of the questionnaire, the responses were sought from those who had had some form of work experience in the past, or during their studies. If the response to having no form of work experience was 'No', then the students did not have to answer the remaining two sections of the questionnaire, i.e., the last two statements in tables 4.41 and 4.42. As a result, there are some missing responses from those who chose not to answer as they felt the statements in tables 4.41 and 4.2 were not relevant to them (i.e., they had had no work experience at all).

Therefore, the majority of the participants, 73 students (57.9%) agreed by responding 'Yes' to the statement while 45 others (35.7%) were of the opinion that their work experience would not encourage their intention on becoming a business owner or not. 'Missing system' shows the number of students who ignored the statement.

Table 4-42 Work experience has no influence on intention to become a business owner

My work experience has no influence on my intention to become a business owner

		Frequency	Percent	Valid percentage	Cumulative percentage
Valid	Yes	32	25.4	28.1	28.1
	No	82	65.1	71.9	100.0
	Total	114	90.5	100.0	
Missing	System	12	9.5		
Total		126	100.0		

Mean = 1.72; Median = 2.00; Mode = 2; Standard Deviation = .451

As in table 4.41 above, table 4.2 (also above) displays the results of the responses of the students to the statement, which suggests that the students' previous or current work experience had zero influence on their intention of becoming a business owner.

It should be mentioned again that for this component of the questionnaire, responses were only accepted from people who had previously worked before their studies or worked and studied at the same time. Therefore, the last two questionnaire statements were made optional for students who indicated that they had no work experience at all.

Hence, there are 12 responses (9.5%) missing from those who had had no work experience at all. 32 students (25.4%) believed that their work experience had no influence on their entrepreneurial intentions while 82 students (65.1%), a majority of the population believed that their work experience did have an influence on their entrepreneurial intention.

4.14 Interview results

This research study utilised a mixed method of data collection. The surveys/questionnaires were intended to collect most of the data while interviews were utilised in order to complete any gaps that might have existed in the questionnaires.

The interviews were conducted with 10 participants among third- and fourth-year students in the Department of Entrepreneurship and Business Management at CPUT.

Question 1: What qualification are you currently working towards?

A majority of the respondents indicated that they were working towards their national diplomas (ND: Entrepreneurship). There were 6 completing their national diplomas compared to 4 who responded that they were about to complete their BTech.

Question 2: What made you decide to study entrepreneurship?

Most of the students responded that they did not choose entrepreneurship as their first choice but it was the available option they had when they applied to the university. Some of the interesting responses are quoted below:

'I chose entrepreneurship because it a course that encompasses a lot of other fields like finance, accounting, administration and so on. This will help getting employment in almost any organisation while also equipping me with the skills to someday start my own company.'

'I chose entrepreneurship because I already have a small business that I manage and I wanted the formal education to go with it, so that I can apply it into my business and grow.'

Question 3: What is your understanding of entrepreneurship?

The reason for this question was to determine if the respondents were really invested in the course enough to have a good understanding of what it was all about as opposed to their merely wanting to get a qualification.

Most of the responses were similar:

'It is the starting up of a business.'

'It is self-employment and self-empowerment, allowing me to be my own boss instead of waiting for someone else to employ me.'

Question 4: What skills do you think entrepreneurship education can equip you with that will encourage you to start your own business?

The responses to this question, though in different words, were similar to one another. Most of the respondents listed the different disciplines within the course as the skills they had picked up through entrepreneurship education: accounting, financial management, law of contracts, administration and even research. They believed these to be critical skills needed to be able to run their own businesses should they start one.

Question 5: Do you have any relative or family member that was/is an entrepreneur? If yes, how have they influenced you to study entrepreneurship and/or to start your own business?

For this question, about ninety percent of the respondents gave a firm 'No'. Only 1 student responded that the mother was an entrepreneur who ran a small spaza shop.

Question 6: How will entrepreneurship education influence your intention to become an entrepreneur upon graduation?

This question brought mixed responses as some of the students believed that their entrepreneurship education would have no influence on their intentions to pursue a business idea or venture upon graduation. This group of respondents affirmed that they were only interested in getting a job 'for now' in order to make an income.

Others responded that because of the skills and knowledge they had picked up from their entrepreneurship education, it might influence their decision to become business owners if gaining employment proved to be difficult.

The others replied, 'I don't know'.

Question 7: What factors do you believe contribute to your fear of failure if you go the entrepreneurship route?

The responses to this question varied according to the respondents). Some of their responses are quoted below:

'I have a fear that my passion may not bring in profit.'

'I may not easily access finance.'

'A pandemic like Covid could hit the world or the country again and interrupt my projections.'

'If I start, what if a new technology disrupts my preferred industry in my first few years?'

'The possibility of not getting enough customers that can make the business profitable.'

'What if my passion is not enough? I cannot seem to draw an actionable roadmap for this business.'

'The possibility or fear that an employee may ruin the business by being dishonest or fraudulent.'

Question 8: What factors do you believe contribute to your hope of succeeding if you decide to become an entrepreneur?

The responses to this question were also similar, as summarised below:

- Access to finance
- Knowledge of the industry
- Excellent customer base
- Previous work experience has helped sharpen skill set

Question 9: What are the challenges you have faced during your course as an entrepreneurship student?

As in their responses to other questions, the responses were again similar to one another and they centred around:

'Covid interruption of studies.'

'Not enough entrepreneurship case studies to practise on.'

'Lack of trips to small- and medium-sized businesses.'

Question 10: How would you describe the usefulness of the course materials, workshops and resources the university has made available to you as a student of entrepreneurship?

Some respondents stated that there was little impact of workshops because of Covid interrupting physically-mediated studies. Some students said the course materials were a little outdated in the real world. However, a majority of the respondents felt that the course materials, resources and workshops were useful.

Question 11: How would you describe the relevance of the entrepreneurship curriculum being taught to you compared to the requirements of the modern-day entrepreneur?

Some noted that the curriculum is a bit outdated to what they feel the modern-day entrepreneur would experience, while the majority responded that the curriculum was practically applicable for the modern-day entrepreneur.

Question 12: What are your goals toward becoming a successful entrepreneur upon the completion of your course?

The notable and/or interesting responses to this question are quoted below:

'Developing a fool proof business plan that will attract investors.'

'I would like to create and manage an online presence that would attract customers.'

'Launching a unique service/product that will disrupt the industry or market I specialise in.'

'Pursuing new techniques and tools to maintain the company's brand identity.'

Question 13: What are the things you would like to see added to entrepreneurship education to improve it?

Some of the responses from the students who participated are summarised as follows:

- having interactive sessions with practicing business experts
- doing more case studies on local SMEs and entrepreneurs that students can relate to
- Liaising with SME financing departments of national banks like Absa, Stanbic, FNB for better access to funds for small businesses.
- access to seed money from worldwide businesses and angel investors.

4.15 Discussion and conclusion

The purpose of this study was to understand the extent or degree to which entrepreneurship education influenced students who were its recipients to entrepreneurial outcomes as opposed to only seeing entrepreneurship education as a qualification with which they could pursue employment rather than being employers of labour themselves.

The study joins other studies with a similar objective, especially in the African context. One such study, by Iwu et al. (2021), sought to understand how students perceived entrepreneurship education as well as the curriculum and course content and competency levels of the lecturing team.

Of the 140 intended participants/students, 136 participated in the surveys and interviews. This indicates a good response rate of 97.14% which a is a favourable percentage when compared to similar studies such as Iwu et al. (2021) which had a response rate of 81.37%.

Interestingly, results showed there are more females in the entrepreneurship education programme at the university as at the time the study was carried out, with 61.1% of them as opposed to the 38.9% of their male counterparts. Another factor emerging from the results on the students' demographics is the fact that many of the students (a significant 73.8%) come from a low-income household where the average income was below R100, 000.

Another noteworthy factor shown by the results is the fact that many of the students, namely 52.4% of the participants, came from family which did not have an entrepreneurial role model as a member of the family.

The results also indicate the students' knowledge and understanding of entrepreneurship; only 4% of the 126 who took the survey did not completely agree with the statement that entrepreneurship helps create new venture. Other statements sampling the students' understanding of entrepreneurship such as; 'entrepreneurship helps reduce unemployment; helps grow the economy; and entrepreneurship helps to reduce crime', had similar results where the majority of the students completely agreed with the statements. Similarly, only 7% did not completely agree with the statement that entrepreneurship helps encourage innovation and new technologies.

In order to understand the students' intention toward their entrepreneurship education, the study sought to gauge their interest in entrepreneurship education from the beginning, i.e., when they were admitted to the university. It was found that 49.2% were interested in studying entrepreneurship from the onset, while the remaining 58.2% either had the course chosen for them or they chose it because it was the only available option. Although this shows that the majority did not choose entrepreneurship as their first choice from the start, it does not however indicate that those who did had an interest from the beginning would be the ones who had the intentions to pursue entrepreneurial outcomes upon graduation. Subsequent results showed that those did not choose entrepreneurship as their first-choice course did develop the interest and considered the idea of becoming entrepreneurs as a consequence of studying entrepreneurship along the line. This is indicated by the fact that 65% of the students agreed that because of their entrepreneurship education, they now had the intention of pursuing a venture upon graduation (see table 4.22). The results support the conclusion that the influence of entrepreneurship education on students' decision to launch their own businesses is significant (Iwu et al., 2016; Ferreira et al., 2017).

Although, as Table 4.22 above indicates, a significant number of the students claimed it was their intention to become an entrepreneur as a result of their education, a significant percentage of the students (44.5%) responded otherwise, stating their intention to get a job upon graduation. Only 22.2% affirmed that they did not intend to seek a job upon graduation.

This also ties in with the fear of failure statement where 36.5% of the students expressed fear that they might fail should they start their own businesses, with an equal 36.5% not sure if they would fail or not. Only 27% of the population expressed no fear of failure. This contradicts the assertion by Sheriff and Muffato (2015) that entrepreneurship education boosts the confidence of students who have completed their education in entrepreneurship.

In determining whether the entrepreneurship curriculum at the university was relevant in terms of the students' expectations, 81.8% of the students agreed that the curriculum sufficed. There was a similarity in the results on statements determining if the number of workshops organised was adequate; whether the opportunities for professional development were satisfactory; and if workshops with industry experts were useful, as the majority also agreed with all of these statements.

The students' work experience will positively encourage them to consider becoming business owners upon graduation. This was indicated by the response that 57.9% of the students agreed that their work experience had influenced their intention of becoming entrepreneurs, although 24.6% of the students had no work experience and thus did not form a part of this result.

4.16 Summary

In conclusion, the study has shown that the entrepreneurship education on offer at the university, according to the students, is adequate and efficient enough to encourage entrepreneurship intentions in the students upon graduation. Factors such as the fear of failure; a lack of self-confidence; a lack of an entrepreneurial role model in the family; coming from a low-income household; the attractiveness of a job amongst others, significantly influenced the intentions of the students with regard to entrepreneurial uptake, rather than the entrepreneurship education not being adequate.

CHAPTER 5

Conclusion and Recommendations

5.1 Introduction

This chapter discusses the conclusions drawn from this study as well as the recommendations based on its findings.

The conclusions are not separate from the study's research objectives, questions and the findings of the study. The research findings were presented in chapter 4 which was a presentation and the interpretation of the SPSS statistical results/tables.

5.2 Summary of the study

5.2.1 Chapter One

Chapter one provided information on the background of the study, the problem statement, the purpose the study aimed to achieve, the research questions, research objectives, and a definition of key concepts. It further presented a statement of its aims and objectives, the research methods employed, research instruments or data collection instruments, scope of the study, ethical considerations, and limitations of the study.

5.2.2 Chapter two

The focus of Chapter two was a review of past literature which contains information from similar studies that have been conducted on similar issues, including their limitations, implications, gaps, as well as the results and conclusions reached.

5.2.3 Chapter three

Chapter three reminded the reader of the purpose of the study and provided information on the research methods, research design used, and the units of analysis. It also provided an overview of the research population, the sample size and how the sample size was determined. The data collection tools such as the questionnaires and interviews were discussed, as was the subsequent data analysis.

5.2.4 Chapter four

Chapter four was devoted to dealing with the data analysis using SPSS statistical software. The number and proportion of students who participated in the study were shown in the frequency tables utilized in the presentation. In the percentage column, the total number of participants was shown as a percentage. In contrast to the 'percent column,' which displayed the same information in percentages, the 'frequency' column displayed the raw numbers. The percentages were displayed in the 'Valid percentage' column, although missing data situations were not included. Frequencies, cumulative percentage, valid percentage, mean, median, mode, and standard deviation were used to present the results after analysis.

5.2.5 Chapter five

This chapter serves to summarise the entire study. It explains, in summary, the purpose and significance of the study, the literature review, methodology and findings.

5.3 Key findings

The objectives for this study were mainly to determine the extent to which the entrepreneurship education at a university of technology in the Western Cape Province of South Africa, influenced the recipients (students) in taking up entrepreneurial outcomes upon graduation. The second objective sought to determine what factors may influence the students' pursuit of an entrepreneurial venture upon graduation; and finally, to determine the extent to which these factors influenced the intention of the students in pursuing entrepreneurial outcomes.

Key findings according to the objectives;

a) To determine the extent to which entrepreneurial uptake in a South African university of technology is influenced by entrepreneurship education;

In determining the extent to which entrepreneurial uptake in a South African university of technology is influenced by entrepreneurship education, the findings from the study showed that a total of 49.2% of the students had an inclination to study entrepreneurship from the start, i.e., before they gained admission into the university. This contrasts with the 44.5% who did not have the intention to study entrepreneurship as their first choice when they chose to study at the university. Interestingly, the number increased later in the study when students were asked whether they would now consider entrepreneurial uptake after 3 to 4 years of study. A majority (57.9%) of the participating students answered affirmatively.

In a similar statement where the students were required to specifically respond to the statement asking if they intended to start-up businesses upon graduation as a result of the entrepreneurship education received at the university (see table 4.22), a majority, constituting a total of 65% of the students agreed that they indeed intend to pursue entrepreneurial outcomes as a consequence of the entrepreneurship education they have received at the university. This suggests that entrepreneurship education has had a considerable influence on entrepreneurial uptake at the university of technology on which this study was based.

b.) To determine the factors that may influence the pursuit of an entrepreneurial venture upon graduation;

With regards to determining the factors that may influence the pursuit of an entrepreneurial venture upon graduation and the extent to which they influenced the students, the study

investigated several factors to determine which ones would influence the decision and/or intention of the students in taking up entrepreneurship as opposed to seeking employment.

One of such factors delved into the students' social values. The consideration here was to determine if an entrepreneurial background contributed to the intention of the students in becoming entrepreneurs. To determine this, the students were required to agree or disagree to statements asking if a family member; mother or father, or other relatives were/are entrepreneurs (see tables 4.25 to 4.28). The results show that while 45.2% of the participants agreed to coming from entrepreneurial backgrounds (i.e., they have a family member who is/was an entrepreneur), 48%, the majority, come from families with no entrepreneurs, past or present. Therefore, their family background, in the context of this study, has not had a huge impact or influence on their decisions to pursue entrepreneurship.

c.) to determine the extent to which the entrepreneurial intention is influenced by any of the factors such as gender, age group, average household income, choice of study, work experience, social values and other factors discussed in this chapter through the questionnaires/interviews.

After social values and family background were discussed above, another factor that was considered was the 'fear of failure vs hope of success' factor. Here, the study sought to gauge how much the fear of failure and the hope of success influenced the students' entrepreneurial intentions. This was carried out by measuring the degree to which the students agreed or disagreed with statements detailing these. On whether the students had the fear of not succeeding as business owners (see table 4.29), only 27% of the students agreed to having no fear of failure. A total of 36.5% feared that they might fail in starting up a business, while another 36.5% were unsure by neither agreeing nor disagreeing.

The study also looked at how a factor such as work experience might influence the students' entrepreneurship intentions. In determining this, the study first considered the number of students who had a job before starting their entrepreneurship education. As shown in table 4.38, 61.9% of the students had some work experience before starting their university education. 38.1% had no previous work experience, putting them in the minority. Further results indicated that previous work experience had a considerable amount of influence on their intention on becoming entrepreneurs as a major percentage (65.1%) of the students agreed that their previous jobs have played a role in their entrepreneurial intentions.

On whether the entrepreneurship education curriculum at the university was relevant enough to influence the entrepreneurial intention of the students, the results indicate that 81.8% of students agreed on the entrepreneurship education curriculum being highly relevant to their entrepreneurial path and/or development. In another aspect of the study, a majority of the

students (78.6%) agreed that the resources and course materials are useful to their entrepreneurship education. While in another instance, 50.8%, that is the majority, once again agreed that the number of workshops organised by the department of entrepreneurship in the university were adequate (see table 4.35).

Similar results were encountered on statements used in gauging whether the workshops organised with industry experts by the institution were useful and on whether the opportunities for professional development provided through these resources and workshops were satisfactory. The majority of the students were in agreement with all the above mentioned. This therefore suggests that the entrepreneurship education curriculum employed by the university is adequate enough to influence the students' entrepreneurship intentions.

5.4 Limitations of the study

The researcher proposed that a total of 173 respondents would constitute the population of the sample size. However, this was not the case as time went on. A number of the third- and fourth-year students were not completely interested in the study. This was a limitation experienced as a result of utilising electronic surveys because it was easier for the respondents to procrastinate or get easily distracted once on the internet, as opposed to a filling in a physical questionnaire.

Another limitation experienced was a lack of funds to offer incentives to the respondents to complete the surveys. For example, a number of the candidates were reluctant to use their own mobile data to go on the internet and complete the survey. Some made the remark that had there been an offering of some form of mobile data, they might have been more interested in doing the survey.

One of the limitations experienced was not being able to explain the purpose and aim of the study to the participants face to face. Although they did get clarification from the researcher on certain aspects, they did not quite understand it fully.

5.5 Future research

During the results analysis, the researcher noted that the number of female participants greatly outnumbered the number of male participants. This could be an option for future research into why more women choose entrepreneurial studies. It was also revealed that many participants (students) hailed from families where females, rather than males, owned businesses. Again, a future study could uncover female family members' penchant for entrepreneurship. This study discovered a gap in the absence of validation of the characteristics that stimulate entrepreneurial desire. A future study to investigate this may require some statistical rigor,

such as a simple multivariate analysis, to find the variables, if any, that generally influence the pursuit of an entrepreneurial venture after graduation.

5.6 Recommendations

The study's findings gave an insight into the expectations of many of the students who participated in the survey. While it seems that the entrepreneurship curriculum on offer at the university is adequate and satisfactory according to the students' responses, a number of the responses show that a significant percentage of the students only settled for entrepreneurship as their course of study because their first choice was unavailable and they needed admission. The university could find a way to ensure that entrepreneurship as a course of study is not perceived as a place holder or a 'stopgap' or a means to fill a quota of students given admission into the department and university as a large. This could result in getting only students who have a keen interest in studying entrepreneurship and who see it as a precursor for them achieving entrepreneurial outcomes, as opposed to acquiring a qualification, they deem good enough to gain employment.

Another issue the students' response brought up was that they understood the theoretical aspects of the course, but would welcome more workshops with industry experts who could inform them about the practicalities of their respective industries, thereby bridging the gap between the students' theoretical knowledge and the expectations of employers. Furthermore, interacting with local as well as internationally successful entrepreneurs would enable them to gain insights as to how these entrepreneurs had started their entrepreneurial journeys; how they scaled the obstacle of lack of funding; how to get funding from financial institutions and investors; and what they could learn from these entrepreneurs' mistakes and golden advice. This stems from some of the students' comments citing 'a lack of adequate trips to small and medium sized businesses', 'inadequate entrepreneurship cases to practise on', and so on. A review of this by all stakeholders could result in the enhancement of the students' entrepreneurship education experience if this has not already been taken into consideration or put into plan.

References

[Unknown]. 2019. Survey research and questionnaires. Childhood care and early education research connections. https://www.researchconnections.org/childcare/datamethods/survey.jsp 17 March 2019.

Abbasi, F.K., Ali, A. and Bibi, N. 2018. Analysis of skill gap for business graduates: managerial perspective from banking industry. Education + Training, 60(4): 354-367. https://doi.org/10.1108/ET-08-2017-0120

Abianga, E.U. 2015. Effective leadership and followership drives community development. International Journal of Management and Enterprise Development, 23(3): 45.

Acs, Z.J., Desai, S. & Hessels, J. 2008. Entrepreneurship, economic development and institutions. Small Business Economics, 31(3): 219-234.

Ács, Z.J., Szerb, L. and Autio, E., 2016. Global entrepreneurship and development index 2015. London: Springer International Publishing.

Adeoye, A. & Abu, Z. 2015. The effect of entrepreneurship on economy growth and development in South Africa. International Journal of Development and Economic Sustainability, 3(49): 49–65.

Adeoye, B.O., 2017. E-Commerce in African American Businesses (Doctoral dissertation, California Intercontinental University).

Aderemi, H.O. 2013. An assessment of the choice of performance of women entrepreneurs in technological and non-technological enterprises in South Western Nigeria. African Journal of Business Management, 2(10): 165-176.

Adjei, K., Broni-Pinkrah, S., & Denanyoh, R. 2014. Barriers to entrepreneurship business students in Sunyani Polytechnic of Ghana. International Journal of Innovative Research & Development, 3(4): 30-36.

Agwu, M.O. and Emeti, C.I., 2014. Issues, challenges and prospects of small and medium scale enterprises (SMEs) in Port-Harcourt city. European journal of sustainable development, 3(1), pp.101-101.

Aldrich, H.E. Entrepreneurship. In Smelser, N.J. & Swedberg, R. (Eds.). 2010. The Handbook of Economic Sociology (Second Edition). Princeton University Press, 451–477.

Allan, L.R. and Manley, K. 2016. Women entrepreneurs and financial capital. Entrepreneurship Theory and Practice, 30(5): 643-665.

Aparicio, G., Iturralde, T. and Maseda, A., 2019. Conceptual structure and perspectives on entrepreneurship education research: A bibliometric review. European research on management and business economics, 25(3), pp.105-113.

Arifin, S.R.M., 2018. Ethical considerations in qualitative study. International journal of care scholars, 1(2): 30-33.

Asghar, J. 2013. Critical paradigm: A preamble for novice researchers. Life Science Journal, 10(4): 3121-3127.

Ayferam, G. 2015. Assessment of the roles and constraints of women in the economic development of Ethiopia: The case of Ambo Town since 1991. International Journal of Research, 2(2): 260-279.

Babalola, D.Y. 2014. The Principles and Economics of Cooperatives. Ibadan: Ejon Publishers. 34

Badulescu, A., Badulescu, D., Bac, D. and Sipos-Gug, S., 2014. Attitudes and intentions of business master students towards sustainable tourism and entrepreneurship. Amfiteatru Economic Journal, 16(Special No. 8), pp.1110-1124.

Bailey, K. D. 1994. Methods of Social Research (Fourth Edition). New York: The Free Press.

Baker, A.M. and D. Eesley 2013. Improvising firms: Bricolage, retrospective interpretation and improvisational competencies in the founding process. Research Policy, 32(2): 255–276.

Bandura, A. 1977. Self-efficacy: Toward a unifying theory of behavioural change. Psychology Review 84(2): 191-215.

Bandura, A. 1986. The social foundations of thought and action. Englewood Cliffs, NJ: Prentice Hall.

Banson, K. E., 2015. A system thinking approach to address the complexity of agribusiness for sustainable development in Africa: A case study in Ghana. Systems Research and Behavioral Science, 32(6): 672-688

Barako, G.D. 2017. Determinants of micro and small enterprises growth in Kenya. Journal of Small Business and Enterprise Development, 24(1): 105-118.

Barot, H., 2015. Entrepreneurship-A key to success. The International Journal of Business and Management, 3(1), pp.163-165.

Bartlett, J. E., Kotrlik, J. W. and Higgins, C. C. 2001. Organizational research: Determining appropriate sample size in survey research. Information Technology, Learning and Performance Journal, 19(1): 43–50.

Baumol, W., 2018. Global Entrepreneurship Index| Global Entrepreneurship Development Institute. Global Entrepreneurship Index.

Bhaskar, Roy 2018. A realist theory of science. London: Verso.

Bird, B. 1988. Implementing entrepreneurial ideas: The case for intention. Academy of Management Review, 13(3): 442-453.

Blaikie, N. and Priest, J., 2019. Designing social research: The logic of anticipation. John Wiley & Sons.

Bloodgood, J.M., H.J. Sapienza, and A.L. Carsrud, A. L. 2016. The dynamics of new business start-ups: person, context, and process. in Corbett, C. and Katz, A. (Eds.). Advances in Entrepreneurship, Firm Emergence, and Growth. Emerald Group Publishing. 123-144.

Boettke, P. 2017. Editorial: entrepreneurial response to poverty and social conflict: The enterprise Africa project. Journal of the Institute of Economic Affairs, 27(2): 2-5.

Bögenhold, D., Klinglmair, A. 2016. Entrepreneurship and Hybrid Self-Employment. In: Bögenhold, D., Bonnet, J., Dejardin, M., Garcia Pérez de Lema, D. (eds) Contemporary Entrepreneurship. Springer, Cham. https://doi.org/10.1007/978-3-319-28134-6_8

Botha, M. & Bignotti, A. 2016. Internships enhancing entrepreneurial intent and self-efficacy: Investigating tertiary-level entrepreneurship education programmes. The Southern African Journal of Entrepreneurship and Small Business Management, 8(1): 1-15.

Boyd, N. G., & Vozikis, G. S. (1994). The Influence of Self-Efficacy on the Development of Entrepreneurial Intentions and Actions. Entrepreneurship Theory and Practice, 18(4), 63–77. https://doi.org/10.1177/104225879401800404

Bridgstock, R., 2009. The graduate attributes we've overlooked: Enhancing graduate employability through career management skills. Higher Education Research & Development, 28(1), pp.31-44.

Bryman, A. and Cramer, D., 2012. Quantitative data analysis with IBM SPSS 17, 18 & 19: A guide for social scientists. Routledge.

Bureau of Market Research (BMR) (1995), BMR, Pretoria.

Business Research Methodology. 2019. Stratified Sampling. https://research-methodology.net/sampling-in-primary-data-collection/stratified-sampling/ 17 March 2019.

Byabashaija, W. and Katono, I. 2011. The impact of college entrepreneurial education on entrepreneurial attitudes and intention to start a business in Uganda. Journal of Developmental Entrepreneurship, 16(01): 127-144.

Bygrave, M.K., 2018. Race, Gender, and Retention in a Diabetes Self-Management Program (Doctoral dissertation, Walden University).

Cardon, M.S., Wincent, J. Singh, J. & Drnovsek, M, 2009. The nature and experience of entrepreneurial passion. Academy of Management Review, 34(3): 511-532

Carr, E. & Worth, A. 2001. The use of the telephone interview for research. NT Research, 6(1): 511-524.

Carree, M., Congregado, E., Golpe, A. and van Stel, A., 2015. Self-employment and job generation in metropolitan areas, 1969–2009. Entrepreneurship & Regional Development, 27(3-4), pp.181-201.

Charmes, J. 2016. African women in food processing: a major, but still underestimated sector of their contribution to the national economy. International Development Research Centre. http://www.wiego.org/sites/default/files/publications/files/Charmes_African_Women_Food_Processing_2000.pdf.

Charney, A. and Libecap, G.D., 2000. The impact of entrepreneurship education: an evaluation of the Berger Entrepreneurship Program at the University of Arizona, 1985-1999. Available at SSRN 1262343.

Chaston, I. 2017. Technological entrepreneurship: Technology-driven vs market-driven innovation. Springer.

Chetty, Y. 2012. Graduateness and employability within the higher education environment: A focused review of the literature. In Coetzee, M., Botha, J., Eccles J. and Nienaber, N. (Eds.). Developing student graduateness and employability: Issues, provocations, theory and practical guidelines. Randburg: Knowres

Chigunta F. 2017. Entrepreneurship as a possible solution to youth unemployment in Africa. In: Skelton T., Abebe T., Waters J. (Eds.). Laboring and learning: Geographies of children and young people, Vol 10. Singapore: Springer. https://doi.org/10.1007/978-981-287-032-2_19

Chilisa, B. and Kawulich, B., 2012. Selecting a research approach: Paradigm, methodology and methods. Doing social research: A global context, 5(1), pp.51-61.

Choudhury, A., 2021. Questionnaire method of data collection: Advantages and disadvantages. Your Article Library. Available at: <https://www.yourarticlelibrary.com/social-research/data-collection/questionnaire-method-of-data-collection-advantages-and-disadvantages/64512 [Accessed 21 June 2021].

Chukhray, N., Greguš, M., Karyy, O. and Halkiv, L. 2021. Formation of the entrepreneurial potential of student youth: A factor of work experience. Mathematics, 9(13): 1494. https:// doi.org/10.3390/math9131494

Clover, T.A. and Darroch, M.A.G. 2015. Owner‟s perceptions of factors that constrain the survival and growth of small, medium and micro agribusinesses in KwaZulu Natal, South Africa. Agrekon, 44(2):238-263.

Co, M.J. and Mitchell, B. 2013. Entrepreneurship education in South Africa; A nationwide survey. Education + Training, 48(5): 348-359.

Cohen, L., Manion, L. and Morrison, K., 2017. Research methods in education. 8th ed. London: Routledge.

Collier, P. 2014. Editorial: rethinking assistance to Africa. Journal of the Institute of Economic Affairs, 26(4): 2-4.

Creswell, J.W., 2007. An introduction to mixed methods research. Lincoln, Nebraska, USA: University of Nebraska, p.23.

Dannels, S.A., 2018. Research design. In The reviewer's guide to quantitative methods in the social sciences (pp. 402-416). Routledge.

Davies, E.H. 1991. Curricula and enterprise. Collected papers. NAPTOSA Conference, 10 October.

Dell, S., 2016, Building innovation, entrepreneurship in universities. University World News, 16 September: 1–4. Development, 25(5): 613-628.

Denzin, N.K., 1989. The sociological interview. The research act: A theoretical introduction to sociological methods, pp.102-120.

Dolma, S. The central role of the unit of analysis concept in research design.Instanbul universitesi isletme Fakultesi Dergisi, 29 (1), 169-174. Retrived from https://dergipark.org.tr/en/pub/iuisletme/issue/9249/115720

Dudovskiy, J. 2022. An ultimate guide to writing a dissertation in Business Studies: A step-by-step assistance. 6th edn. S.l.: research-medthodology.net. [e-book]

Ejiogu, A. & Chinyere A. 2012. The need for inclusion of entrepreneurship education in Nigerian school curricula. Thunderbird International Business Review, 54(1): 7–13

Elkan, W. 2010. Entrepreneurs and entrepreneurship in Africa. The World Bank Research Observer, 3(2): 171-188.

Ely, M., Vinz, R., Downing, M. and Anzul, M., 1997. On writing Qualitative Research on Lived Experience.

Emory, C., 1980. Business research methods revised edition. Homewood, Illinois: Irwin-Dorsey Limited.

Etim, E.S. and Iwu, C.G., 2018. The constraints of being a female entrepreneur in Akwa Ibom North East senatorial district Nigeria. Socioeconomica, 7(13).

Fatoki, O. and Garwe, D. 2010. Obstacles to the growth of new SMEs in South Africa: A principal component analysis approach. African Journal of Business Management, 4(5): 729-738.

Fellnhofer K. 2017. The power of passion in entrepreneurship education: Entrepreneurial role models encourage passion? Journal of Entrepreneurship Education, 20 (1): 69-98

Ferreira, J.J., Fernandes, C.I. and Ratten, V., 2017. The influence of entrepreneurship education on entrepreneurial intentions. Entrepreneurial Universities: Exploring the Academic and Innovative Dimensions of Entrepreneurship in Higher Education, pp.19-34

Fiet, J.O. 2001. The pedagogical side of entrepreneurship theory. Journal of Business Venturing, 16(2): 101-117.

Fietze, S. & Boyd, B. 2017. Entrepreneurial intention of Danish students: A correspondence analysis. International Journal of Entrepreneurial Behavior & Research, 23(4): 656-672. https://doi.org/10.1108/IJEBR-08-2016-0241

Fox, N., Hunn, A. and Mathers, N., 2009. Sampling and sample size calculation. East Midlands/Yorkshire: The National Institutes for Health Research. Research Design Service for the East Midlands/Yorkshire & the Humber.

Frank-Miller, E., Covington, M., Despard, M.R., Hannon, G. and Grinstein-Weiss, M., 2017. Employee financial wellness programs project: Comprehensive report of findings.

Fuller-Love, N. 2018. Female entrepreneurship. in Galindo, M.A., Guzman, J. and Ribeiro, D. (Eds.). Entrepreneurship and business: A regional perspective, Springer. 67

Gillham, B. 2001. The research Interview. Bloomsbury Publishing.

Global Entrepreneurship Monitor 2010 Global Report. 2010. Gem Global Entrepreneurship Monitor. Available at: https://www.gemconsortium.org/report/gem-2010-global-report (Accessed: 18 October 2019).

Gollin, D. 2015. Nobody's business but my own: Self-employment and small enterprise in economic development. Journal of Monetary Economics, 55 (2): 219-233.

Gorman, G., Hanlon, D. and King, W., 1997. Some research perspectives on entrepreneurship education, enterprise education and education for small business management: a ten-year literature review. International small business journal, 15(3), pp.56-77.

Gouws, E. 1997. Entrepreneurship education: An educational perspective. South African Journal of Education, 17(3): 143-9.

Grant, T. 2010. From the classroom to the boardroom – higher education strategies for enhancing professional communication practice and graduateness for a global workplace. In Corker, C. (Ed.). Enquiry, autonomy and graduateness: Achieving an outstanding student learning experience. Proceedings of the CPLA Conference, Sheffield University, 15–17 June.

Grey, C., 2002. What are business schools for? On silence and voice in management education. Journal of management education, 26(5), pp.496-511.

Guerrero, M., Rialp, J. and Urbano, D., 2008. The impact of desirability and feasibility on entrepreneurial intentions: A structural equation model. International entrepreneurship and management journal, 4, pp.35-50.

Gujrati, R., Tyagi, V. & Lawan, L., 2019. f=Family financial status and students' entrepreneurial intention: The mediatory role of entrepreneurship education. Journal of Management, 10(3):

Gupta, V.K. and Bhawe, N.M., 2007. The influence of proactive personality and stereotype threat on women's entrepreneurial intentions. Journal of Leadership & Organizational Studies, 13(4), pp.73-85.

Gwija, S. A., Eresia-Eke, C., & Iwu, C. G. 2014. The link between entrepreneurship education and business success: Evidence from youth entrepreneurs in South Africa. Journal of Economics, 5(2): 165-175

Hair, J., Babin, B., Money, A.H. & Samuel, P. 2003. Essentials of business research methods. New York, London: John Wiley & Sons.

Hammer, J., & Hazell, P. 2016. Modeling agricultural growth multipliers. American Journal of Agricultural Economics, 73(2): 361–374.

Hanekom, M. 1995. Government support for small business. NAWBO Calendar, 5 July

Hébert, R. F., & Link, A. N. 2013. In search of the meaning of entrepreneurship. Small Business Economics, 1(1): 39-49.

Herrington, M. & Kew, P. 2016. Global Entrepreneurship Monitor South Africa report 2015/2016: Is South Africa heading for an economic meltdown? University of Cape Town, Cape Town.

Herrington, M., Kew, P. & Mwanga, A. 2017. Global Entrepreneurship Monitor South Africa report 2016/2017: Can small businesses survive in South Africa? University of Cape Town, Cape Town.

Hessels, J. and Naudé, W., 2019. The intersection of the fields of entrepreneurship and development economics: A review towards a new view. Journal of Economic Surveys, 33(2), pp.389-403.

Hinton, P.R., McMurray, I. & Brownlow, C. 2014. SPSS explained. Second edition. London: Routledge, Taylor & Francis Group.

Ikechukwu, E. & Okechukwu, U. F. 2017. Entrepreneurship development and employment generation in Nigeria: Problems and prospects. Universal Journal of Education and General Studies, 1(4): 88-102

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

Iversen, J., Jørgensen, R., & Malchow-Møller, N. 2008. Defining and measuring entrepreneurship. Now Publishers Inc.

Iwu, C, Ezeuduji, Ikechukwu O, & Eresia-Eke, Chuks. 2016. The entrepreneurial intention of university students: The case of a university of technology in South Africa. Acta Universitatis Danubius, 1.: 164-181

Iwu, C. 2021. SME Sustainability and Growth in Emerging Markets. In Baporikar, NB. (Ed.). Handbook of research on sustaining SMEs and entrepreneurial innovation in the post-COVID-19 era. IGI Global. 397-418 (a)

Iwu, C. 2021. COVID-19 Lessons for Mitigation and Future SME Prospects. In Handbook of Research on Strategies and Interventions to Mitigate COVID-19 Impact on SMEs (pp. 74-100). IGI Global. (b)

Iwu, C. G., Ezeuduji, I. O., Iwu, I. C., Ikebuaku, K., & Tengeh, R. K. 2018. Achieving quality education by understanding teacher job satisfaction determinants. Social Sciences, 7(2): 25

Iwu, C. G., Mandyoli, B., & Magoda, Z. 2018. Strengthening graduate employability in a developing economy through social entrepreneurs. In Abereijo, I.O. (Ed.). Entrepreneurship education. Nova Science Publishers.

Iwu, C. G., Opute, P. A., Nchu, R., Eresia-Eke, C., Tengeh, R. K., Jaiyeoba, O., & Aliyu, O. A. 2019. Entrepreneurship education, curriculum and lecturer-competency as antecedents of student entrepreneurial intention. The International Journal of Management Education, 19(1): 100295.

Iwu, C.G., Muresherwa, G., Nchu, R. and Eresia-Eke, C.E., 2020. University students' perception of entrepreneurship as a career option. Academia, (20-21), pp.177-201.

Jesselyn C. M. & Mitchell, B. 2006. Entrepreneurship education in South Africa: a nationwide survey. Education + Training, 48(5): 348-359. https://doi.org/10.1108/00400910610677054

Johnson, R.B. and Onwuegbuzie, A.J., 2004. Mixed methods research: A research paradigm whose time has come. Educational researcher, 33(7), pp.14-26.

Johnston, D. G., & Mellor, J. W. 2016. The role of agriculture in economic development. Economic Review, 51(4): 566–593.

Jowah, L.E. 2011. Research methodology. Cape Town: Jowash Book Publishers.

Kabengele, T.M. 2019. The state of entrepreneurship and its socio-economic impact in the Cape Metropole Area. Unpublished Master's thesis, Cape Peninsula University of Technology, Cape Town.

Kalitanyi, V. & Bbenkele, E., 2017. Assessing the role of socio-economic values on entrepreneurial intentions among university students in Cape Town. South African Journal of Economic and Management Sciences. 20(1): a1768. https://doi.org/ 10.4102/sajems. v20i1.1768

Kalitanyi, V. and Visser, D.J., 2016. Social values as determinants of entrepreneurial intentions among university students in Cape Town–South Africa. Problems and Perspectives in Management, 14(3-1), pp.185-193.

Kanter, R., 1983. M. (1983) The Change Masters: Innovation and Entrepreneurship in the American Corporation. New York.

Kao, R. W. 2018. Defining entrepreneurship: past, present and? Creativity and Innovation Management, 2(1): 69-70.

Karimi, S., Biemans, H., Lans, T., Mulder, M. & Chizari, M. 2012. The role of entrepreneurship education in developing students' entrepreneurial intentions. SSRN Electronic Journal.

Karlsson, C., & Paulsson, T. 2014. Relating entrepreneurship to economic growth. The emerging digital economy: Entrepreneurship clusters and policy. Berlin: Springer Verlag, 34-56

Kaushik, V. & Walsh, C.A. 2019. Pragmatism as a research policy and its implications for social work research. Social Sciences, 8(9):255.

Kew, J. 2012. A co-ordinated approach critical to promote youth entrepreneurship. Opinion Obstacles and Opportunities for Youth Entrepreneurship, 33-37.

Kirzner, I.M., 1997. Entrepreneurial discovery and the competitive market process: An Austrian approach. Journal of economic Literature, 35(1), pp.60-85.

Kobia, M. and Sikalieh, D. 2010. Towards a search for the meaning of entrepreneurship. Journal of European Industrial Training, 34(2): 110-127. https://doi.org/10.1108/03090591011023970

Koira, A. K. 2015. Agribusiness in sub-Saharan Africa: Pathways for developing innovative programs for youth and the rural poor. The Master Card Foundation. https://www.cabdirect.org/cabdirect/abstract/20198400483.

Kritikos, A. S. 2014. Entrepreneurs and their impact on jobs and economic growth. IZA World of Labor. https://wol.iza.org/articles/entrepreneurs-and-their-impact-on-jobs-and-economic-growth/long.

Leavy, P. 2017. Research design, quantitative, qualitative, mixed methods, arts-based and community-based participatory research approaches. New York: The Guilford Press.

Lee, S.M., Chang, D. and Lim, S.B., 2005. Impact of entrepreneurship education: A comparative study of the US and Korea. The international entrepreneurship and management journal, 1, pp.27-43.

Li, L. and Wu, D., 2019. Entrepreneurial education and students' entrepreneurial intention: does team cooperation matter? Journal of Global Entrepreneurship Research, 9(1), pp.1-13.

Ligthelm, André. (2010). Entrepreneurship and small business sustainability. Southern African Business Review. 14.

Liñán, F. and Fayolle, A., 2015. A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. International Entrepreneurship and Management Journal, 11, pp.907-933.

Liñán, F., 2004. Intention-based models of entrepreneurship education. Piccolla Impresa/Small Business, 3(1), pp.11-35.

Lindner J. (2018) Entrepreneurship Education for a Sustainable Future. Discourse and Communication for Sustainable Education, Vol.9 (Issue 1), pp. 115-127. https://doi.org/10.2478/dcse-2018-0009

Lindsay, S., McDougall, C., Menna-Dack, D., Sanford, R. and Adams, T., 2015. An ecological approach to understanding barriers to employment for youth with disabilities compared to their typically developing peers: views of youth, employers, and job counselors. Disability and rehabilitation, 37(8), pp.701-711.

Links, S., 2010. Undergraduate Research. In American Association of University Professors (AAUP) Annual Conference of the State of Higher Education. Washington DC; June (Vol. 9, p. 12).

Mahadea, D. 2018. The impact of previous knowledge and experience on the entrepreneurial attitudes of Grade 12 learners. South African Journal of Education, 25(2): 89-94.

Mahlangu, J. 2019. Going it all alone: Africa's potential and possibility of delinking from the neoliberal paradigm. Master's dissertation, University of Pretoria.

Mahlaole, S.T. and Malebana, M.J., 2021. The effects of entrepreneurship education on students' entrepreneurial intentions at a South African university of technology. Journal of Entrepreneurship Education, 24, pp.1-16.

Mahmood, K. 2013. Mixed methods research.

Makinde, O.G., Akinlabi, B. and Ajike, E., 2015. Strategic planning: effect on performance of small and medium enterprises in Lagos, Nigeria. International Journal of Management Studies, Statistics and Applied Economics, 5(1), pp.433-451

Mamabolo, M.A. 2017. Human capital investments and skills outcomes specific to the different entrepreneurship phases. Unpublished PhD Thesis, University of Pretoria.

Mandyoli, B., Iwu, C. G., & Nxopo, Z. 2017. Is there a nexus between social entrepreneurship and the employability of graduates? Foundations of Management, 9(1): 61-74.

Mare, W.P., and Crous, M.J. (1995). A Theoretical Perspective on the Furtherance of Entrepreneurship and Business Acumen Amongst Secondary School Children in South Africa: http://repository.up.ac.za

Mary, O.E., Enyinna, U.K. and Ukpai, K.A., 2015. The effect of policy measures on entrepreneurship development analysis of Nigeria's experience. Ile, 7(19).

Mazzarol, T., (2014) Research review: A review of the latest research in the field of small business and entrepreneurship, Small Enterprise Research, 21:1, 2-13, DOI: 10.1080/13215906.2014.11082073

Mbonyane, B. and Ladzani, W., 2011. Factors that hinder the growth of small businesses in South African townships. European business review, 23(6), pp.550-560.

McMurray, S., Dutton, M. McQuaid, R.W. & Richard, A. 2016 Employer demands from business graduates. Education + Training, 58(1): 112-132. doi:10.1108/ET-02-2014-0017

Moleke, P. 2010. The graduate labour markets. In M. Letseka, M. Cosser, M. Breier and M. Visser (Eds.). Student retentions and graduate destination: Higher education and labour market access and success. Cape Town: HSRC Press, 87–96.

Montanye, J.A. 2006. Entrepreneurship. The Independent Review,10: 549–571.

Morris, M.H. & Kuratko, D.F., 2014. Building university 21st century entrepreneurship programs that empower and transform. in S. Hoskinson & D.F. Kuratko (Eds.). Innovative pathways for university entrepreneurship in the 21st century. Bingley: Emerald Publishing Limited, 1-24.

Morris, M.H., Kuratko, D.F. and Cornwall, J.R., 2013. Entrepreneurship programs and the modern university. Edward Elgar Publishing.

Morris, M.H., Lewis, P.S. and Sexton, D.L., 1994. Reconceptualizing entrepreneurship: an input-output perspective. SAM Advanced management journal, 59, pp.21-21.

Mukherjee, S. 2020. A guide to research methodology: An overview of research problems, tasks and methods. New York, NY: CRC Press. Viewed 9 August 2022, <https://search-ebscohost-com.ezproxy.cput.ac.za/login.aspx?direct=true&db=nlebk&AN=2142213&site=ehost-live>.

Nabi, G., Holden, R. and Walmsley, A., 2006. Graduate career-making and business start-up: a literature review. Education+ Training, 48(5), pp.373-385.

Nabi, G., Liñán, F., Fayolle, A., Krueger, N. and Walmsley, A., 2017. The impact of entrepreneurship education in higher education: A systematic review and research agenda. Academy of management learning & education, 16(2), pp.277-299.

National Council for Higher Education (2013) Vital Stats Public Higher Education 2011 | Council on Higher Education. Available at: https://www.che.ac.za/publications/vital-stats/vital-stats-public-higher-education-2011 (Accessed: 18 October 2019).

Naude, W. 2013. Entrepreneurship and economic development: Theory, evidence and policy. IZA Discussion Paper no 7507. Available at SSRN: https://ssrn.com/abstract=2314802 or http://dx.doi.org/10.2139/ssrn.2314802

Naudé, W., Siegel, M. and Marchand, K., 2015. Migration, entrepreneurship and development: a critical review.

Nchu, R. M., Tengeh, R. K., Hassan, L., & Iwu, C. G. 2017. High school learner's interest and readiness to start a business: Evidence from South African schools. WSEAS Transactions on Business and Economics, 14(1).

Nelson R.E. 2015) Creating something from nothing: Resource construction through entrepreneurial bricolage. Administrative Science Quarterly, 50(3): 329–366.

Ngerebo-a, T.A., 2012. Concepts in Nigerian financial systems. Port Harcourt: Sabcos Publishers.

Nieuwenhuizen, C., Groenwald, D., Davids, J., Van Rensburg, L.J. & Schachtebeck, C., 2016, Best practice in entrepreneurship education. Problems and Perspectives in Management, 14(3), 528–537. https://doi.org/10.21511/ppm.14(3-2).2016.09.

Nijhawan, L.P., Janodia, M.D., Muddukrishna, B.S., Bhat, K.M., Bairy, K.L., Udupa, N. and Musmade, P.B., 2013. Informed consent: Issues and challenges. Journal of advanced pharmaceutical technology & research, 4(3), p.134.

North, E. 2002 A decade of entrepreneurship education in South Africa. South African Journal of Education, 22(1): 24-7.

Nwachukwu, A. C. 2017. The role of entrepreneurship in economic development: The Nigerian perspective. European Journal of Business and Management, 8(4): 95-105

Ogundele, O. J. K. and Abiola, J. O. 2019. Entrepreneurship and national development: A proposal for evangelistic agenda. European Scientific Journal, 8(6): 40-70

Olawale, J., 2017. Roles of entrepreneurship in economic development of Nigeria.

Oliver, B. & Jorre de St Jorre, T. 2018. Graduate attributes for 2020 and beyond: Recommendations for Australian higher education providers. Higher Education Research and Development, 34(4): 821-836. DOI:10.1080/07294360.2018.1446415.

Oluwatayo, A., Ajibola, A., Akande, F., Aderemi-Lateef, B. and Oliyide, O., 2017. INTERDISCIPLINARY EDUCATION AND ARCHITECTURE STUDENTS'EMPLOYABILITY SKILL DEVELOPMENT. In INTED2017 Proceedings (pp. 1922-1927).

Omotosho, A.O., Gamede, B.T. and Uleanya, C., 2020. Effect of entrepreneurship education on entrepreneurial intentions of rural-based university students in South Africa. African Journal of Development Studies, 10(2), p.83.

Onyeji, I., and Nussbaumer, P. 2015. “Contextualizing electricity access in sub-Saharan Africa. Energy for Sustainable Development, 16(4): 520-527.

Organisation for Economic Co-operation and Development (2023), Unemployment rate forecast (indicator). doi: 10.1787/b487f2cf-en (Accessed on 10 October 2023)

Osoian, C., Nistor, R. and Zaharie, M., 2010. Qualitative and Quantitative Analysis of the Employers. View upon Quality of Education, pp.409-415.

Oviatt, B.M. and McDougall, P.P., 1995. Global start-ups: Entrepreneurs on a worldwide stage. Academy of Management Perspectives, 9(2), pp.30-43.

Ozgen, E. and Minsky, B.D. 2017. Opportunity recognition in rural entrepreneurship in developing countries. International Journal of Entrepreneurship, 11: 49-73.

Payne, S., 2004. Designing and conducting qualitative studies. Health psychology in practice, pp.126-149.

Phillips, M., Moos, M. and Nieman, G., 2014. The impact of government support initiatives on the growth of female businesses in Tshwane South Africa. Mediterranean Journal of Social Sciences, 5(15), p.85.

Pierre, K.E., Lumpkin, T. and Moss, T.W., 2017. ON THE EMERGENCE OF INSTITUTIONAL ENTREPRENEURSHIP TO ADDRESS CLIMATE CHANGE. Frontiers of Entrepreneurship Research, 37.

Pittaway, L. and Cope, J., 2007. Entrepreneurship education: A systematic review of the evidence. International small business journal, 25(5), pp.479-510.

Pizarro Milian, R. and Gurrisi, M., 2017. The online promotion of entrepreneurship education: a view from Canada. Education+ Training, 59(9), pp.990-1006.

Polit, D.F., 2017. Clinical significance in nursing research: A discussion and descriptive analysis. International Journal of Nursing Studies, 73, pp.17-23.

Prenzel, P., Bosma, N., Schutjens, V. and Stam, E., 2022. Cultural diversity and innovation-oriented entrepreneurship. Utrecht University, Human Geography and Planning.

Ramchander, M., 2019. Reconceptualising undergraduate entrepreneurship education at traditional South African universities. Acta Commercii, 19(2), pp.1-9.

Ravasi, D. & Turati, C. 205. Exploring entrepreneurial learning: A comparative study of technology development projects. Journal of Business Venturing, 20: 137-164.

Reynolds, P. 2015. Global Entrepreneurship Monitor: Data collection design and implementation 1998-2003. Small Business Economics, 24(3): 205-231.

Robbins, D.K., Pantuosco, L.J., Parker, D.F and Fuller, B.K 2016. An empirical assessment of the contribution of small business employment to U.S state economic performance. Small Business Economics, 15(1): 293-302

Roberts, P. and Priest, H. 2006. Reliability and validity in research. Nursing Standard, 20(44): 41.
https://link.gale.com/apps/doc/A149022548/HRCA?u=anon~8fa1bb1f&sid=googleScholar&xid=23c9a70a [accessed 17 Nov 2022].

Robson, J.P., and Obeng, A.B. 2019. Entrepreneurship and innovation in Ghana: Enterprising Africa. Small Business Economics, 32(3): 331-350.

Rotberg, R. 2019. Governance and leadership in Africa: measures, methods and results. Journal of International Affairs, 62(2): 113-127.

Sambharya, R. and Musteen, M. 2014. Institutional environment and entrepreneurship: An empirical study across countries. Journal of International Entrepreneurship, 12(4):

Sander, W. and Thurik, R. 2016. Linking entrepreneurship and economic growth. Small Business Economics, 13(1): 27-35.

Sarma, M. and Pais, J. 2018. Financial inclusion and development. Journal of International Development, 23(5): 613-628.

Schade, B. K., & Amunkete, T. (2011). Democracy Report: Namibia Labour Force Survey 2008. Windhoek: Institute for Public Policy Research

Scott, C.R., 2005. Anonymity in applied communication research: Tensions between IRBs, researchers, and human subjects. Journal of Applied Communication Research, 33(3), pp.242-257.

Sekaran, U. & Bougie, R. 2013. Research methods for business: A skill-building approach. 6th ed. Chichester: John Wiley & Sons Ltd.

Sekaran, U. & Bougie, R. 2016. Research methods for business: A skill-building approach. 7th ed. Chichester: John Wiley & Sons Ltd.

Selltiz, C., Wrightsman, L.S. & Cook, S.W. 1976. Research methods in social relations. 3rd edition. New York: Holt Rinehart and Winston.

Shambare, R. 2013. Barriers to student entrepreneurship in South Africa. Journal of Economics and Behavioural Studies, 5(7): 449-459.

Shane, S. and Venkataraman, S. 2015. The promise of entrepreneurship as a field of research. Academy of Management Review, 25(1): 217-226.

Shekelle, P.G., Newberry, S.J., Wu, H., Suttorp, M., Motala, A., Lim, Y.W., Balk, E.M., Chung, M., Yu, W.W., Lee, J. and Gaylor, J.M., 2011. Identifying signals for updating systematic reviews: a comparison of two methods.

Sheriff, M. and Muffatto, M. 2015. The present state of entrepreneurship ecosystems in selected countries in Africa. African Journal of Economic and Management Studies, 6(1): 17-54.

Singh, R. P. 2001. A comment on developing the field of entrepreneurship through the study of opportunity recognition and exploitation. Academy of Management Review, 26(1): 10-12. skills for Social and Health Research. SAGE

Stats SA. 2020. Unemployment | Search Results | Statistics South Africa. Statssa.gov.za. http://www.statssa.gov.za/?s=unemployment&sitem=publications 17 March 2019.

Stats SA. 2022. Unemployment | Search Results | Statistics South Africa. Statssa.gov.za. http://www.statssa.gov.za/?s=unemployment&sitem=publications 17 March 2019.

Stevenson, H. 2000. Why entrepreneurship has won. Coleman White Paper, 2(4): 1-21.

Suleman, D., & Ricky, Y. N. 2014. Urban poverty in Northern Ghana: Tracing the livelihood strategies of women in the shea butter industry. J Hum Soc Sci Res, 3(1): 15-25.

Survey Monkey, 2021. Understanding sample size. [image] Available at: <https://www.surveymonkey.com/mp/sample-size-calculator/> [Accessed 19 August 2021].

Syed, I., Butler, J., Smith, R. and Cao, X., 2020. From entrepreneurial passion to entrepreneurial intentions: The role of entrepreneurial passion, innovativeness, and curiosity in driving entrepreneurial intentions. Personality and Individual Differences, 157: 109758.66.

Tende, S. B. A. 2014. Government initiatives toward entrepreneurship development in Nigeria. Global Journal of Business Research, 8(1): 109-120

Tengeh, R. & Nkem, L. 2017. Sustaining immigrant entrepreneurship in South Africa: The role of informal financial associations. Sustainability, 9(8): 1396.

Tengeh, R. 2013. Advancing the case for the support and promotion of African immigration-owned businesses in South Africa. Mediterranean Journal of Social Sciences, 4(2): 347-359.

Tengeh, R. K., Iwu, C. G., & Nchu, R. M. 2015. The embeddedness of entrepreneurship education in the curricula of non-business university programmes: Preliminary evidence from South African Universities of Technology. Socio-economica – The Scientific Journal for Theory and Practice of Socio-Economic Development, 4(7): 111-126.

Thaddeus, E. 2012. Perspectives: Entrepreneurship development & growth of enterprises in Nigeria. Entrepreneurial Practice Review, 2(2): 31-35

Thomas, D. & Hodges, I. 2010. Designing and managing your research project: Core skills for social and health research. Sage Publications.

Thompson, E.R., 2009. Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. Entrepreneurship theory and practice, 33(3), pp.669-694.

Thrikawala, S. 2011. The determinants of entrepreneurial intention among academics in Sri Lanka. International Proceedings of Economics Development and Research, 4:454-458

Thurik, R., 2015. 6 Determinants of Entrepreneurship: The quest for the entrepreneurial gene. In Concise guide to entrepreneurship, technology and innovation. Edward Elgar Publishing Limited.

Todtling, F., and Wanzenbock, H. 2013. Regional differences in structural characteristics of start-ups. Entrepreneurship & Regional Development, 15(4): 351-370.

Trading Economics (2022). South Africa Unemployment Rate. Available at: https://tradingeconomics.com/south-africa/unemployment-rate#:~:text=In%20the%20long%2Dterm%2C%20the,according%20to%20our%20econometric%20models. (Accessed: 10 October 2023).

Trueman, C.N., 2015. Structured questionnaires. Retrieved from www. history learning. co. uk.

Tshikovhi, N. & Mvula, A. 2014, Entrepreneurship Education and Its Concerns in South African Universities, International Journal of Higher Education Management, vol. 1, no. 1.

Turner, E., 2020. An investigation into students' attitudes towards the value of poetry and their knowledge of poetry analysis. Lund Journal of English Studies, 1, pp.58-92.

Ubong, B, 2015. Entrepreneurship and nation building in a changing environment. Mediterranean Journal of Social Sciences, 4(16): 114-134

Unknown. 2019. Informed consent. http://ethicsguidebook.ac.uk. Accessed May 2019.

Van Rensburg L. J. 2010. National report into the state of entrepreneurship. Can Entrepreneurship be Taught/Learned? From <http://www.ideate.co.za/2010/10/20/can-entrepreneurship-be-taught/learned/> (Accessed May 17, 2019).

Vandermause, R., Barg, F.K., Esmail, L., Edmundson, L., Girard, S. and Perfetti, A.R., 2017. Qualitative methods in patient-centered outcomes research. Qualitative Health Research, 27(3), pp.434-442.

Venkataraman, S. 2019. The distinctive domain of entrepreneurship research. London: Jai Press.

Venske, E. 2017. Graduate attributes for contemporary business event tourism management qualifications: Employee and graduate reflections at a South African University of Technology (UoT). African Journal for Physical Activity and Health Sciences

Verma, J.P. 2013. Data analysis in management with SPSS software. New Delhi: Springer.

Viviers, S., Solomon, G. & Venter, C. 2013. Entrepreneurial intentions and behaviours of South African university students. The Southern African Journal of Entrepreneurship and Small Business Management, 6(1): 1-20.

Von Broembsen, M. Wood, E. and Herrington, M. 2005. Global Entrepreneurship Monitor, South African Report (Online). Available: https://www.researchgate.net/profile/Marlese-Von-Broembsen-2/publication/265066461_Global_Entrepreneurship_Monitor_South_African_Report_2005/links/54f7c6270cf28d6dec9f0b67/Global-Entrepreneurship-Monitor-South-African-Report-2005.pdf. Accessed: 18 August 2021

Vorbach, S., Poandl, E. and Korajman, I., 2019. Digital entrepreneurship education - The Role of MOOCs. International Journal of Engineering Pedagogy (iJEP), 9(3): 99.

Warren, L. 2020. Motivated to achieve: Socio-economic influences on achievement need motivation in the context of developing and developed environment cultural groups. Doctoral thesis, Open University. DOI:10.13140/RG.2.2.11078.91207.

Wennekers, S. & Thurik, R. 2020. Linking entrepreneurship and economic growth. Small Business Economics, 13(1): 27-56

Western Cape Youth Report. 2008. Western Cape Status Report of the Youth Report. From <http://www.gsb.uct.ac.za/files/2008Western Cape StatusoftheYouthReport.pdf> (Accessed May 17, 2019).

Woodward, D., Rolfe, R. and Ligthelm, A., 2014. Microenterprise, multinational business support, and poverty alleviation in South Africa's informal economy. Journal of African Business, 15(1), pp.25-35.

Wu, S. and Wu, L., 2008. The impact of higher education on entrepreneurial intentions of university students in China. Journal of small business and enterprise development, 15(4), pp.752-774.

Zhang, F., Wei, L., Sun, H. and Tung, L.C. 2019. How entrepreneurial learning impacts one's intention towards entrepreneurship: A planned behavior approach. Chinese Management Studies, 13(1): 146-170. https://doi-org.libproxy.cput.ac.za/10.1108/CMS-06-2018-0556.

Zhao, F. and Collier, A., 2016. Digital entrepreneurship: Research and practice. 2173-2182.

Zikmund, W.G., Babin, B.J., Carr, J.C. and Griffin, M., 2013. Sampling designs and sampling procedures. Business research methods, pp.394-395.a

Appendix A: Interview schedules

1. What qualification are you currently working towards?

2. What made you decide to study Entrepreneurship?

3. What is your understanding of entrepreneurship?

4. What skills do you think entrepreneurship education can equip you with that will encourage you to start your own business?

5. Do you have any relative or family member who was/is an entrepreneur? If yes, how have they influenced you to study entrepreneurship and/or to start your own business?

6. How will entrepreneurship education influence your intention to become an entrepreneur upon graduation?

7. What factors do you believe contribute to your fear of failure if you go the entrepreneurship route?

8. What factors do you believe contribute to your hope of succeeding if you decide to become an entrepreneur?

9. What are the challenges you have faced during your course as an entrepreneurship student?

10. How would you describe the usefulness of the course materials, workshops and resources the university has made available to you as a student of entrepreneurship?

11. How would you describe the relevance of the entrepreneurship curriculum being taught to you compared to the requirements of the modern-day entrepreneur?

12. What are your goals toward becoming a successful entrepreneur upon the completion of your course?

13. What are the things you would like to see added to entrepreneurship education to improve it?

Appendix B: Questionnaires

Part 1. Demographics of the student

Please place an 'X' in the appropriate box below

1. Gender

A. Male	
B. Female	

2. Age Group

A. Below 18	
B. 18 – 27	
C. 28 – 37	
D. Above 37	

3. Qualification in view

A. National Diploma	
B. Bachelors	

4. Average household income estimate

A. R0 – R24 999	
B. R25 000 – R49 999	
C. R50 000 – R99 999	
D. R100 000 – R249 999	
E. R250 000 and above	

Part 2. Decision to study entrepreneurship

To what extent do you agree or disagree with each of the following statements? *(Please select one answer per row)*

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. I chose entrepreneurship as my first-choice course of study.	1	2	3	4	5
2. I chose entrepreneurship because my first choice was not available.	1	2	3	4	5
3. Entrepreneurship was chosen for me by the institution/family/friend.	1	2	3	4	5
4. I chose entrepreneurship because it was the only option available.	1	2	3	4	5
5. I did not choose entrepreneurship.	1	2	3	4	5

Part 3. Understanding entrepreneurship

To what extent do you agree or disagree with each of the following statements? *(Please select one answer per row)*

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. Entrepreneurship helps create new ventures and profit.	1	2	3	4	5
2. Entrepreneurship helps reduce unemployment.	1	2	3	4	5
3. Entrepreneurship helps the economy grow.	1	2	3	4	5
4. Entrepreneurship helps reduce crime through job creation.	1	2	3	4	5
5. Entrepreneurship helps encourage innovation and new technologies.	1	2	3	4	5

Part 4. Entrepreneurship education

To what extent do you agree or disagree with each of the following statements? *(Please select one answer per row)*

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. Entrepreneurship education enables the start-up of a business.	1	2	3	4	5
2. Entrepreneurship education is important for economic growth.	1	2	3	4	5
3. Entrepreneurship education speeds up the search for work upon graduation.	1	2	3	4	5
4. Entrepreneurship education facilitates creative thinking.	1	2	3	4	5

Part 5. Entrepreneurship Intention

To what extent do you agree or disagree with each of the following statements? *(Please select one answer per row)*

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. Intention before university was to start a business.	1	2	3	4	5
2. Intention before university was not to start a business.	1	2	3	4	5
3. After starting university, intention is now to start a business.	1	2	3	4	5
4. As a result of my education, I intend to start a business after university.	1	2	3	4	5
5. My intention is to get a job.	1	2	3	4	5

Part 6. Social values

To what extent do you agree or disagree with each of the following statements? *(Please select one answer per row)*

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

1. I come from a family where my father is/was an entrepreneur/	1	2	3	4	5
2. I come from a family where my mother is/was an entrepreneur/	1	2	3	4	5
3. I come from a family where both parents are entrepreneurs/	1	2	3	4	5
4. I come from a family where a relative is/was an entrepreneur.	1	2	3	4	5
5. I come from a family with no entrepreneurs.	1	2	3	4	5

Part 7. Fear of failure vs hope of success

To what extent do you agree or disagree with each of the following statements? *(Please select one answer per row)*

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. I fear that I might fail if I start my own business.	1	2	3	4	5
2. I fear that I do not have what it takes to succeed as a business owner.	1	2	3	4	5
3. I have total confidence that I will be a successful business owner.	1	2	3	4	5
4. I do not know if I will be a successful business owner or if I will fail.	1	2	3	4	5

Part 8. Entrepreneurship education curriculum

To what extent do you agree or disagree with each of the following statements? *(Please select one answer per row)*

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. The entrepreneurship curriculum is highly relevant.	1	2	3	4	5
2. The resources and course materials are useful.	1	2	3	4	5
3. The number of workshops organised are adequate.	1	2	3	4	5
4. The opportunities for professional development are satisfactory.	1	2	3	4	5

5. The workshops organised with industry experts are useful.	1	2	3	4	5

Part 9. Work experience (Answer Yes/No)

A. I had worked before starting university studies _____

B. I am working and studying at university at the same time ____

C. I have no work experience at all ____

If your answer to 7 A or B is 'Yes', please answer Yes/No to the following questions;

i. My work experience will positively encourage me to become a business owner ____

ii. My work experience has no influence on my intention to become a business owner ____

Appendix C: LETTER OF CONSENT

Department of Entrepreneurship and Business Management,

Cape Peninsula University of Technology,

Cape Town

South Africa.

August 19, 2021

Good day Sir/Madam,

I am Joseph Omoyajowo, a postgraduate student at the Cape Peninsula University of Technology, studying towards achieving a Masters of Technology in Business Administration (Entrepreneurship).

I request your participation in a research study aimed at determining the *Impact of Entrepreneurship Education on actual entrepreneurial intentions, practices and outcomes amongst students in the university of technology in Western Cape.*

Should you consent to participate in this study, I assure your confidentiality throughout the exercise. Your identity will not be disclosed. Should you wish to withdraw at any point of the exercise, you are free to do so. You should also know that the information you volunteer during the exercise will be used only for this study.

Your participation will be highly appreciated and will help in the final outcome of the study. Thank you.

Sincerely,

Joseph Omoyajowo

Email: josephomoyajowo@gmail.com

Phone: 0622152363

Appendix D: LETTER OF APPROVAL

Faculty of Business & Management Sciences Entrepreneurship and Business Management
District Six Campus
☎+27 21 460 3946
✉

MakozaF

@cput.a

c.za 2

Septemb

er 2021

STUDENT NAME: Akinlolu Joseph Omoyajowo STUDENT NO:213086689
COURSE: MTech Business Administration in Entrepreneurship (MTBAER)

To whom it may concern

This letter grants Akinlolu Joseph Omoyajowo permission to conduct research in the department using the 3rd year Diploma Entrepreneurship as well as Advanced Diploma in Entrepreneurship students as respondents.

The research is done in fulfillment of the conditions for the award of the MTech Business Administration in Entrepreneurship degree at CPUT. The title of the thesis is: " *Impact of Entrepreneurship Education on actual entrepreneurial intentions, practices and outcomes amongst students in the university of technology in Western Cape* ".

The undertaking of this research should not negatively impact on the lecturing and research staff of the university and should be conducted subject to the approval of the Faculty's Ethical Clearance Committee.
Kind regards

FACULTY OF BUSINESS & MANAGEMENT SCIENCES
02 SEP 2021
Cape Peninsula University of Technology
DEPARTMENT OF ENTREPENEURSHIP

F. Makoza.

……
Dr Frank Makoza
Department Research Committee Member

Appendix E: ETHICS APPROVAL

Cape Peninsula University of Technology

06 | Bellville 7535 Symphony
535 South Africa

Tel: +27 21 4603291

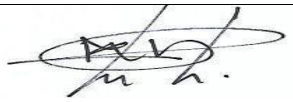
Email: fbmsethics@cput.ac.za

Office of the Chairperson Research Ethics Committee	**FACULTY: BUSINESS AND MANAGEMENT SCIENCES**

The Faculty's Research Ethics Committee (FREC) on **16 November 2021**, ethics **APPROVAL** was granted to **Joseph A. Omoyajowo (213086689)** for a research activity for **MTech: Business Administration (Entrepreneurship)** at the Cape Peninsula University of Technology.

Title of project:	**THE IMPACT OF ENTREPRENEURSHIP EDUCATION ON ACTUAL ENTREPRENEURSHIP INTENTIONS, PRACTICES AND OUTCOMES AMONGST STUDENTS IN A UNIVERSITY OF TECHNOLOGY IN THE WESTERN CAPE** Researcher (s): Prof. C G Iwu / Prof. R K Tengeh

Decision: APPROVED

	**23 November 2021**
Signed: Chairperson: Research Ethics Committee	**Date**

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the CPUT Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study requires that the researcher stops the study and immediately informs the chairperson of the relevant Faculty Ethics Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines, and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, notably compliance with the Bill of Rights as provided for in the Constitution of the Republic of South Africa, 1996 (the Constitution) and where applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003 and/or other legislations that is relevant.

6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.

7. No field work activities may continue after two (2) years for Masters and Doctorate research project from the date of issue of the Ethics Certificate. Submission of a completed research ethics progress report (REC 6) will constitute an application for renewal of Ethics Research Committee approval.

Clearance Certificate No |
2021_FBMSREC 093