

**UNIVERSITY OF KWAZULU-NATAL**

**THE INFLUENCE OF ENTREPRENEURSHIP EDUCATION ON THE  
ENTREPRENEURIAL INTENTIONS OF UKZN FEMALE ENTREPRENEURSHIP  
STUDENTS**

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College of Law and Management Studies**

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## DECLARATION

I, Mzwandile Boss Raymond Zulu, declare that

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Name: Mzwandile Boss Raymond Zulu

4 October 2019

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## **ABSTRACT**

Entrepreneurship intent resulting from entrepreneurship education provides a solid framework for understanding entrepreneurial activity globally. While the number of entrepreneurship education programmes is growing, their influence on the entrepreneurial intent of female entrepreneurship students has not been sufficiently investigated from a South African perspective. Therefore, the purpose of this study is to understand the influence of entrepreneurship education on the entrepreneurship intentions of female students who are enrolled for entrepreneurship at UKZN. The study used a quantitative research approach to collect data from a sample of 175 female students who had enrolled for entrepreneurship modules in their second year, of which 74 responded. Nonprobability sampling known as purposive sampling was used to select the respondents to the study. Data was obtained through a questionnaire and analysed with both descriptive as well as inferential statistics. The results revealed that entrepreneurship education has an influence on entrepreneurship intentions amongst female students. The results also indicated that the content and topics covered within entrepreneurship modules are a strong contributing factor affecting students' entrepreneurial intentions. The study also discovered that behavioural control plays a prominent role in determining the entrepreneurial intentions of students. The results draw attention to the importance of introducing entrepreneurial modules to the curriculum of undergraduate students. Therefore, this study recommends that entrepreneurship modules should be compulsory for all students across the different disciplines to promote entrepreneurial intentions in female university students. Future research studies should compare the differences in entrepreneurship intentions between males and females that pursue entrepreneurship education at UKZN and probe the understanding of those causes in the differences, if they exist, with the view to maximising the impact of entrepreneurship education.

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## **CHAPTER ONE:**

### **INTRODUCTION AND BACKGROUND OF THE STUDY**

#### **1.1 Introduction and background of the study**

Entrepreneurial activities, particularly focussing on new venture creation can promote wealth creation and reduce social and regional inequality (Westhead & Wright, 2013). According to Brush and Cooper (2012), females can play an important role in innovation, as well as the creation, employment and generation of wealth. This is however not fully explored, as, globally, many women are excluded from entrepreneurship, because of the various gendered barriers to entrepreneurship that they face (Orser, Riding, & Stanley, 2012; Kariv, 2013).

Many studies construct 'the female entrepreneur' as the 'other' entrepreneur, which suggests that women are viewed as lacking in critical entrepreneurial attributes (Marlow & Swail, 2014; Solesvik, 2015; Westhead & Solesvik, 2016). "Women are generally marginalized within the dominant entrepreneurship discourse which in itself is gendered and ethnocentrically biased" (Verduijn & Essers, 2013: 613). There is therefore gender-stereotypical beliefs about entrepreneurship that are prevalent (Jennings & Brush, 2013). In addition to being confronted with potential gender stereotypes, women may self-stereotype which leads to their tendency to evaluate business opportunities less favourably, and therefore to report a lower entrepreneurial intention (Gupta, Goktan, & Gunay, 2014).

Entrepreneurship education, focussing on alertness and risk-taking may broaden the general skills of students and enable students to accumulate unique skills that will allow them to identify unique business opportunities (Solesvik, 2015). A meta-analysis of the outcome of entrepreneurship education investigated by Martin, McNally and Kay (2013) established that there was a link between Entrepreneurship Education and the intention to do business. This was also concurred by the finding of Bae, Qian, Miao and Fiet (2014) in a separate investigation.

Since the mid- to late-1990's, there has been an increasing emphasis, by the international community, on entrepreneurship development and support, which has resulted in

various pieces of research being conducted into this phenomenon (Yadav & Unni, 2016). The government of South Africa has also caught on to the importance and potential impact of supporting entrepreneurship to the extent that a new small business development unit was established and consequently various support mechanisms for Small Medium and Micro Enterprises have been adopted (Small Business Project, 2013). Tertiary institutions, such as the University of KwaZulu-Natal (UKZN). Have also taken a bold stance to support the government's objective of supporting and producing more entrepreneurs in the economy, by introducing entrepreneurship education programs (Langa, 2016).

In conducting this study, the following variables in line with Ajzen Theory of planned behavior, have been utilised to achieve the objectives of the study. The independent variables are attitude towards entrepreneurship education, subjective norms and perceived behavioural control over entrepreneurship education, while the dependant variable is entrepreneurship intention.

## **1.2 Problem Statement**

There is a dearth of knowledge surrounding the best combinations of objectives, contents and teaching style when addressing the needs and specificities of each entrepreneurship education audience (Fayolle, 2013). This refers most importantly to minority groups such as women. Further, there is inadequate and contradictory proof regarding, whether female students gain from entrepreneurship education in the same way as male students do (O'Connor, 2013; Bae et al., 2014). In addition, according to Fayolle (2013), regardless of the role of entrepreneurship education from a policy-maker perspective, and the tremendous increase in entrepreneurship education programs, very few investigative studies have assessed the outcomes associated with these programs, specifically for female students (Bae et al., 2014). This study investigated the influence of entrepreneurship education on the entrepreneurial intentions of University of KwaZulu-Natal (UKZN) female entrepreneurship students.

Much of the unemployment suffered by developing nations, such as South Africa, are a direct result of low entrepreneurship activity.

The 2018/2017 Global Entrepreneurship Monitor Report, reported that the proportionality of male to female early-stage entrepreneurship involvement differed throughout the Global Entrepreneurship Monitoring (GEM) countries, based on the cultural and custom differences on female participation, however males were still more likely to be involved in entrepreneurial activity than females across all GEM countries. (GERA, 2018; Herrington, Kew & Mwanga, 2016). In addition, various studies indicated that women experience relatively more challenges in becoming entrepreneurs than men (Derera, 2011; Adeel Anjum et al., 2012) These challenges include: more domestic demands; lower education (particularly in developing countries); fewer businesswomen to look up to; limited access to business-orientated networks; limited access to assets and capital; socially undermined and undervalued, as well as a lack of assertiveness and confidence in their entrepreneurial ability (Herrington, Kew & Mwanga 2016). A key part to enabling greater participation of females in entrepreneurship in South Africa, will be to overcome the above-mentioned barriers. According to (Bae et al., 2014) entrepreneurship education improves the entrepreneurship activity of a society. This study investigates the influence of entrepreneurship education on the entrepreneurial intentions of UKZN female entrepreneurship students.

### **1.3 Objectives and Hypotheses**

#### ***1.3.1 Research Objectives***

1. To establish a relationship between attitude about entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students.
2. To establish a relationship between subjective norms about entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students
3. To establish a relationship between perceived behavioural control over entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students

#### ***1.3.2 Research Hypotheses***

##### **Objective One**

1. H01a: There is no relationship between entrepreneurship education and entrepreneurial intentions of UKZN female entrepreneurship students.

H1a: There is a relationship between entrepreneurship education and entrepreneurial intentions of UKZN female entrepreneurship students.

2. H01b: There is no relationship between topics covered by entrepreneurship course(s) and entrepreneurial intentions of UKZN female entrepreneurship students.

H1b: There is a relationship between topics covered by entrepreneurship course(s) and entrepreneurial intentions of UKZN female entrepreneurship students.

3. H01c: There is no relationship between the interest in topics covered within entrepreneurship course(s) and entrepreneurial intentions of UKZN female entrepreneurship students.

H1c: There is no relationship between the interest in topics covered within entrepreneurship course(s) and entrepreneurial intentions of UKZN female entrepreneurship students.

## Objective Two

1. H02a: There is no relationship between the influence of family members on students to pursue a career in entrepreneurship and their entrepreneurial intentions.

H2a: There is a relationship between the influence of family members on students to pursue a career in entrepreneurship and their entrepreneurial intentions.

2. H02b: There is no relationship between the influence of friends on students when choosing their entrepreneurship modules and their entrepreneurial intentions.

H2b: There is a relationship between the influence of friends on students when choosing their entrepreneurship modules and their entrepreneurial intentions.

3. H02c: There is no relationship between the support of entrepreneurship ideas at the university level and the entrepreneurial intentions of students

H2c: There is a relationship between the support of entrepreneurial ideas at the University level and the entrepreneurial intentions of students

4. H02d: There is no relationship between the influence of role models on students to choose entrepreneurship education and its effect on their entrepreneurial intentions

H2d: There is a relationship between the influence of role models on students to choose entrepreneurship education and its effect on their entrepreneurial intentions

### Objective Three

1. H03a: There is no relationship between students' understanding of entrepreneurship content and their entrepreneurial intentions.

H3a: There is a relationship between students' understanding of entrepreneurship content and their entrepreneurial intentions.

2. H03b: There is no relationship between the relevance of entrepreneurship education and entrepreneurial intentions of students

H3b: There is a relationship between the relevance of entrepreneurship education and entrepreneurial intentions of students

3. H03c: There is no relationship between students' success on their entrepreneurship assessments and its effects on their entrepreneurial intentions.

H3c: There is a relationship between students' success on their entrepreneurship assessments and its effect on their entrepreneurial intentions.

## 1.4 Need for the Study

Globally, entrepreneurship is recognised for the value that it adds to the economy (Nicolaidis, 2011; Westhead & Wright, 2013; Nchu, 2015). This was also highlighted by Azhar, Javaid, Rehman and Hyder (2010), supported by Nafukho and Muyia (2010), who confirmed the essential role played by entrepreneurship creating and fulfilling a healthy economy. The increase in emphasis on entrepreneurship has led to various pieces of research being conducted, being, among others, entrepreneurship education and entrepreneurship intention (Marlow & Swail, 2014). Whilst there is a wealth of

information and knowledge on entrepreneurship intentions in general (Malebana, 2012; Malebana & Swanepoel, 2015), there is very little known about the entrepreneurship intentions of female entrepreneurship students. This is an alarming issue as females, within the South African context, represent the majority of the population and therefore suffer most from unemployment. Furthermore, research has proven that entrepreneurship rates in South Africa favour men, owing to the various gender specific obstacles suffered by females in pursuing entrepreneurship (Orser et al., 2012; Kariv, 2013). This study investigates how entrepreneurship education influences the entrepreneurial intent of UKZN female entrepreneurship students.

### **1.5 Research Methodology**

The main objective was to determine how entrepreneurship education influences the entrepreneurial intent of UKZN female entrepreneurship students. This investigation was correlational in nature and therefore followed a quantitative research approach. According to Creswell (2014), the aim of a correlational study is to identify where in fact there is a relationship between aspects of a situation (Kumar, 2011). Primary data was obtained from a questionnaire. The study was conducted at UKZN, Pietermaritzburg campus. The population of the study was made of female students' who enrolled for second year entrepreneurship modules. Non-probability sampling was used to choose participants (Zikmund, Babin, Carr & Griffin, 2010; Sekaran & Bougie, 2010). Collected data was analysed with descriptive and inferential statistics from the SPSS version 20.

### **1.6 Limitation of the study**

The researcher is based at the Pietermaritzburg campus of UKZN, which made it challenging to access female students enrolled in entrepreneurship modules at the other UKZN campuses. Furthermore, although there were female students that were enrolled in postgraduate studies that had also completed entrepreneurship modules, the researcher had to exclude them from this research although they could have contributed to the findings. These limitations were as a result of the availability of information as well as the logistical and cost implications of accessing the data from the excluded group. This meant that primary data had to be gathered from third year female students that had been enrolled for the entrepreneurship modules in their second year of study in the Pietermaritzburg campus of the University of KwaZulu-Natal. This is a limitation as the results are not necessarily a representation of the collective views of all female



entrepreneurship students at UKZN, as a result the findings are not generalizable to all UKZN female entrepreneurship students. Thus, the findings of the study only reflect the views of the selected students. However, the findings provide a basis for future research in this area and fills a research gap that exists in understanding how entrepreneurship education influences the entrepreneurial intentions of UKZN female entrepreneurship students.

## **1.7 Structure of the dissertation**

### **Chapter 1: Introduction**

The aim of this section was to present and outline the background information to the study. In addition, the justification, need, problem as well as the objectives of this research are provided. Thereafter an outline of the research methodology is also provided as well as the limitations.

### **Chapter 2: Literature Review**

This chapter begins by introducing and defining the concept of entrepreneurship. Thereafter Female entrepreneurship is discussed in the global context, with a focuss on the South African conditions. This is followed by a deeper review of the barriers to female entrepreneurship, citing the various studies that have considered and explored these barriers. Thereafter past research on female entrepreneurship is presented dating back to 1970 to more recent studies in the 2000s. This chapter closes with literature surrounding the theoretical framework that has been adopted for this study as well as concluding remarks.

### **Chapter 3: Research Methodology**

This chapter commences with the statement of the purpose of the investigation, lays out the objectives and relevant hypotheses. The Research problem as well as the justification for the sampling method used for this study are also discussed, including ethical considerations, with details of the steps taken to ensure the study, was conducted in an ethical manner. This was then followed by concluding remarks to the chapter

### **Chapter 4: Presentation of Results**

Here details about the findings as well as the interpretations of the results are outlined. SPSS version 20 was utilised to capture data and Pearson correlation coefficient statistics

were employed to analyse the results. Furthermore, descriptive statistics helped in understanding the demographic findings.

### **Chapter 5: Discussion**

This area provides a discussion of the outcome of this investigation with reference to literature findings and applicable theory.

### **Chapter 6: Summary, Conclusion and Recommendations**

Here the research findings as well as recommendations and limitation are summarised as identified in the study. Furthermore, suggestions for future research in this area of study are provided.

#### **1.8 Summary**

In summing up, this chapter presented the main purpose for this study. highlighting the research; problem, questions, rationale and objectives. This was followed by the details about the research design, ethical issues that were considered as well as what the limitations were to this study. Finally, the structure of the dissertation was discussed. The next chapter details various relevant literature that was consulted in commencing this study.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter starts by exploring the contribution of various authors towards the definition of entrepreneurship as well as the differences of opinion that have led to the rich understanding of what constitutes entrepreneurship. This lays the necessary foundation that helps us to understand the main subject of this research, which is female entrepreneurship, the next section then looks at female entrepreneurship and surveys the relative literature on this subject and looks at the role of females in the South African and global economy. This section is then followed by an in-depth look at entrepreneurship education and thereafter entrepreneurship intentions which are a critical component of this research as the entire research hinges on the understanding of the relationship among entrepreneurship education, female entrepreneurship and entrepreneurial intentions.

### **2.2 Defining Entrepreneurship**

Entrepreneurship is a complex subject to define as there exist various thoughts on what constitutes it and what an entrepreneur is. This section explains the various definitions that have been developed by various authors on entrepreneurship including the contexts under which these definitions have been developed. According to Steenkamp (2013), since the introduction of the term 'entrepreneurship' in the twentieth century, it has meant different things to different people, under the broad interpretation of being active, but risk-taking has been a common theme. When entrepreneurship was initially introduced in the 17<sup>th</sup> century, it was linked to risk-taking as well as own initiative (Fuchs, Werner & Wallau, 2008). Table 1 below presents different definitions of entrepreneurship from various authors.

**Table 1: Definitions of Entrepreneurship**

Author	Definition
Barringer & Ireland (2010)	Entrepreneurship is the pursuit of economic opportunities, regardless of available resources; it is the art of transforming ideas into business.
Gries & Naude (2011)	Entrepreneurship is the resource, process and state of being thorough which, individuals utilize progressive opportunities to create and grow new enterprises.
Grigorea, Mainescu & Tomaa (2014)	Entrepreneurship is a purposeful motion to begin and enlarge a revenue-orientated business.

Source: Authors Own Compilation

The definitions in the table above shows different perspectives from various authors about the concept of entrepreneurship. Some authors define entrepreneurship as a process, some as a mind-set and some as an attitude. Regardless of the complexity of these definitions, Shane and Venkataraman (2000) highlight the fact that entrepreneurship requires the existence of an entrepreneur and an opportunity. An entrepreneur is a person who sees opportunities that others do not (Schumpeter, 1934; 1942, as quoted by Malebana, 2012). From the above definitions it can therefore be stated that entrepreneurship is a process of identifying an economic opportunity and gathering the resources necessary to turn that economic opportunity into a sustainable revenue generating activity (Shane & Venkataraman, 2000; Malebana, 2012; Grigorea, Mainescu & Tomaa, 2014).

## **2.3 Female entrepreneurship**

According to Brush and Cooper (2012), females are an important source of innovation, jobs, and wealth generation, because women represent a large human capital base, necessary for the sustainable economic development of nations (Adom & Williams, 2012). According to Adom and Williams (2012), female entrepreneurs often operate small and medium businesses (SMEs), but this is more prevalent in developing and emerging economies. De’Vita, Mari and Poggesi (2014) acknowledged the global significance of the economic contribution of female entrepreneurs. Women often reflect lower levels of entrepreneurship than males and this is due to various gender-based obstacles that

women experience, which make it difficult for females to become entrepreneurs (Derera, 2011; Singh & Belwal, 2008; Hossain *et al.*, 2009). However, while men were later still more likelier to participate in early-stage business activity, the gender gap in 2015 (Herrington & Kew, 2016) had severely decreased in 2016, and South Africa reflected a healthier gender parity in entrepreneurship involvement for 2016 (Herrington & Kew, 2016). In 2016, for every 10 males, less than 7 females were involved in early-stage entrepreneurship, as opposed to the 2015 figure of six females for every ten males (Herrington & Kew, 2016).

## **2.4 Barriers to female entrepreneurship**

Singh (2012) pointed out that the major entrepreneurship obstacles that females experience are limited management skills, business education, domestic responsibility and work demand conflict, high risk aversion, fewer business women to look up to, a lack of timely business information, pressure of child care as well as extreme inequality in accessing credit. In a similar study, Kock (2008) agreed that there were huge obstacles experienced by female entrepreneurs when establishing a business and indicated that these were in the form of limited entrepreneurial skills, inter-role conflict with domestic and work responsibilities, poor access to business information, high risk aversion, a low confidence and limited awareness or access to business support. Furthermore Kock (2008), highlighted that the main obstacles experienced by female entrepreneurs are liquidity and other financial problems.

### **2.4.1 Access to Credit**

According to Nieman and Niewenhuizen (2014), females in South Africa experience tremendous difficulties in obtaining loans to establish and grow their businesses. This comes as a result of many females having no collateral or property to use as collateral for loans. Nieman and Niewenhuizen (2014) further state that females in South Africa require their husbands' permission to raise the much-needed finances for their businesses as they can only enter into debt with their husbands' approval.

According to Cesarani and Sentuti (2014), there is evidence that females are declined more frequently for loans and are often requested to have their spouse or other male family member co-sign the loan application. Cesarani, Lotti and Mistrulli (2013) further argued that pure gender discrimination was the cause of females' difficulties in obtaining

funding for their ventures. Access to working capital is essential to smooth out income fluctuations arising from the timing of production and sales. Lack of capital negatively affects the SMMEs ability to come up with new products. According to Zins and Weill (2016), there may be negative discrimination against females in the credit granting process. This means that females are either unfairly declined access to credit or discouraged from applying for credit, thus making it all extremely difficult for females to access debt. This argument is supported by Gomez (2013) who stated that there is gender discrimination by finance and support providers. Previous research on this subject indicates that female businesses are established with, lower capital and debt finance than male businesses (Zins & Weill, 2016). This argument is also supported by Cesaroni and Sentuti (2014) that there is evidence that females encounter more obstacles to financing than males, and further stating that females are required to provide more collateral against their debt requirements.

Gomez (2013) highlights that when female entrepreneurs manage to secure debt, they are required to pay higher interest than males for their most recent loans. However, Cavalluzzo and Wolken (2005) argue that the loan officers in the banks they visited for their study, took the prospect of discrimination very seriously. Gomez (2013) however indicates that loan officers were unlikely to recommend a loan for a female, citing the reason for this, being that females did not have adequate security.

Zins and Weill (2016) indicate that female entrepreneurs prefer informal sources of finance. Mattis (2004) also argues that female entrepreneurs often depend on savings and credit cards to support their businesses. Cesaroni and Sentuti (2014) state that females tend to establish smaller businesses, rely less on banks and use savings, supplemented by family members and friends. This may reflect both challenges in financial institutions and the risk averse attitudes towards female entrepreneurs by financial institutions. In addition, Gomez (2013) indicates that female micro entrepreneurs find difficulty when engaging with banks. Furthermore, the type of entrepreneurship and size of business that females pursue also influences their general credit legitimacy.

#### ***2.4.2 Work-home role conflict***

Other issues experienced by female entrepreneurs are the dual responsibilities of household and family versus employment (Heilbrunn & Davidovitch, 2011). Nasurdin and O'Driscoll (2012) indicated that the tension that exists between the female entrepreneur's personal life and her career pursuit was referred to as work-home conflict. According to Coulter (2003), the dual career family emerged as the norm in the mid-1990s. The growth of women-owned business reflects broader-based changes worldwide. The concepts of dual income families and professional women in the workplace are ever expanding notions. This societal change also poses a critical problem for women. However, a tension exists where the pressures of exercising entrepreneurship activities and being a homemaker become incompatible (Kuratko & Hodgetts, 2004; Leaptrott, 2009). Leaptrott (2009) indicates that work-home conflict is evident even for women who do not have children.

The responsibilities of taking care of family and household needs as well as the demands of full-time business ownership, exerts a tremendous load on female entrepreneurs. Since it requires substantial time to do both jobs, women often suffer from a great deal of exhaustion and stress in the attempt to maintain these responsibilities (Diaz-Garcia, Brush, Gatewood & Welter, 2016). As a result of family commitments, female business entrepreneurs often have less time available for their businesses unlike their male counterparts (Neneh, 2018). Neneh further argues that family responsibilities, could limit females engaging in entrepreneurship. This argument is supported by Leaptrott (2009) by stating that, while many females become successful business owners, they still experience difficulties in balancing the demands of their family responsibilities and the demands of their business ownership obligations. Furthermore, Neneh, (2018) pointed out that while most female business owners considered their household responsibilities as an obstacle there were a few cases where entrepreneurship gave them an alternative, through flexible hours and mobility in running the business, to better take care of the needs of their homes.

### **2.4.3 Self confidence**

Another barrier that was apparent amongst women was a lack of self-confidence (Derera, 2011). This was related to a lack of business knowledge and low self-esteem (Zins and Weill (2016). According Perez-Perez and Aviles-Hernandez (2016), although women perceive that they achieved a slightly higher level of success than men, they seemed to begin the start-up process with certain handicaps. One of these was the tendency to start smaller businesses, this tendency showed a lack in self-confidence, meaning that woman starting a small business were not confident that they would succeed in their start-up (Perez-Perez & Aviles-Hernandez, 2016).

### **2.4.4 Laws and regulations**

The legal context in which female entrepreneurs operate plays an important role, as this influences the nature and extent of their activity as well as the economic contribution that they have (Meunier, Krylova & Ramalho, 2017). In addition, Hughes, Jennings, Brush, Carter and Welter (2012) stated, that the social and tax laws imposed by governments may encourage females to take up entrepreneurship in the attempt to take advantage of the favourable conditions arising from these laws towards them, with regards to social security associated with entrepreneurship, affording them better working conditions, more flexibility in the use of their time as well as allowing them to take better care of their households, whilst improving the income of their families. However, Byrne and Fattoum (2015) argue that there are regulatory environments where certain laws reduce women's contractual power which in turn reduces women's involvement in economic activity.

Byrne and Fattoum (2015) identified regulations that discriminate against women. For example, in the United Arab Emirates, the law forbids women from working at night. In the Democratic Republic of Congo, females need their husbands' consent to start a business and a single female requires a judge's approval. In Lao People's Democratic Republic, women are banned from performing certain types of management. In Germany, there was visible discrimination of females up until the early 1990s in the laws, where females required their husbands' authorisation to legitimise labour contracts or in regulations where husbands had to endorse a women's bank application. In addition, Meunier *et al.* (2017) pointed out that females had more problems in Germany with the frequent changes in legislation as well as with the interpretation of legal regulations.



#### **2.4.5 Pessimistic self-perceptions**

Females think that they have negative traits that have an adverse impact on their business activities. There are indications that rural, migrant females are more affected by their limitations (Brush & Cooper, 2012). According to Gomez (2013) most female entrepreneurs, especially those that have operated in the professional sector, do not see themselves as businesswomen, which is a term they associate with more prominent women in larger organisation.

#### **2.4.6 Socio-cultural environment**

Social attitudes towards entrepreneurship are part of the business environment and for that reason, are of great importance to female entrepreneurs (Orser *et al.*, 2012). Herrington and Kew (2016) emphasise that cultural factors and societal views that discourage female entrepreneurs are among the factors which inhibit entrepreneurship. These include a diminished view from the male community, excessive social discrimination, social conditioning as well as gender stereotyping (Brush & Cooper, 2012). Furthermore, females, are socially undermined and undervalued (Ghosh & Cheruvalath, 2007).

For these reasons female entrepreneurs view public attitudes towards them as negative (Orser *et al.*, 2012). Gomez (2013) argues that the degree to which female entrepreneurs experience barriers will have an influence on the success of their enterprises. The extent to which these dimensions impact female entrepreneurs' rests, highly on the context of the country they are in. The differences in social structures across the various developed and developing countries indicate that there are variations in individual factors that influence the performance of women owned businesses.

#### **2.4.7 Societal biased perceptions**

Social and cultural systems also have an impact on the development of entrepreneurs in general as well as of females (Díaz-García *et al.*, 2016). Brush and Cooper (2012) argued that most of the time female entrepreneurs are undermined, as they are negatively perceived as "hobbyists", "dabblers" or part-timers and not serious businesspeople. They are also viewed as over-emotional and underqualified to run businesses. In German society, females are still defined through their domestic responsibilities (Hughes *et al.*,

2012). Evidence suggests that female entrepreneurs need to overcome society's belief that they are not as serious about business as men are (Meunier *et al.*, 2017).

#### **2.4.8 Risk averse**

According to Marlow and Swail (2014), women are more failure averse than men as a result they are susceptible to setting their business sights too low. They are often afraid to travel, relate to strangers, employ subordinates and even to borrow substantial values of money. They may start and keep their businesses at small scales. Female entrepreneurs are also cautious about risks associated with fast paced business growth and intentionally keep their growth at a slow and steady pace (Marlow & Swail, 2013). Similarly, Gomez (2013) suggests that when the owner-manager's attitude is risk averse and they want to keep control of the firm, they may stunt equity growth. According to Akhalwaya and Havenga (2012), the risk aversion in females decreases as they gain more confidence about their business and entrepreneurial capabilities.

#### **2.4.9 Doubt about being a competitive, profit-oriented dealmaker**

According to Brush and Cooper (2012), females may be against being perceived by society as a "competitive, profit oriented deal maker" because they have been socialised into the conventional perception of women as nurturing, mothering and selfless – putting others first (Marlow & Swail, 2014). Furthermore, females are sensitive to being rejected and are shy to request anything in order to conclude the deal (Marlow & Swail, 2014). As a result of this, females have more often suffered from strong and unfair competition from their male counterparts, who are less understanding and are more aggressive in closing deals (Brush & Cooper, 2012). Historically, women-owned enterprises were involved in the retail sales and services sector, as these sectors predominantly had low labour intensity, however, these sectors generate lower returns for the business owner (Meunier *et al.*, 2017). The appeal of these sectors was the ease of entrance, due to there being comparatively lower capital requirement (Meunier *et al.*, 2017). However, businesses in these industries generally tends to be confronted with high competition, and comparatively slower growth rates (Akhalwaya & Havenga, 2012; Meunier *et al.*, 2017).

#### **2.4.10 Isolation from business network**

The entrepreneur personal network is crucial tool to the firm. Firm social networks facilitate the success of a start-up (Zins and Weill, 2016). Similarly, Manolova, Manev and Gyoshev (2007) indicate that, social networks are an important source of resources and

support which counters the risks of newness and smallness and allows entrepreneurs to engage in the pursuit of growth, furthermore gender differences in network structures and networking behaviour in social capital can influence the decision to commence and develop a business as well as the success and survival of that business. In terms of network social capital, research suggests that gender limitations in networking contacts of female entrepreneurs, paying attention to the limited outreach and diversity of female entrepreneurs' networks (Adeel, Khan, Naz, Razas & Fatima, 2012). In many countries, females are often not part of social or informal network of information (Zins & Weill, 2016).

Since young females are predominantly not intended to run a business, they are not encouraged to join business-oriented organisations or taught the necessary skills to do so. It is only until recently that certain professional community organisations, that were previously only open to males, that they have opened to females as well. This lack of contacts has isolated females (Mandipaka, 2014). Moreover, Ghosh and Cheruvalath (2007) state that women tend to undermine networking. Female entrepreneurs do not see value in networking as an entrepreneur, as a result of certain stigmas or societal norms pinned against them. However, Manolova *et al.* (2007) indicate that the social networks where entrepreneurs find themselves, influence their ability to tap into the resources they need to run their businesses.

#### ***2.4.11 Developing a management style***

Males are mainly characterised by a traditional leadership style while females have a transformational leadership style, which is a style of management that tries to create positive interactions between subordinates (Bruni, Gherardi & Poggio, 2004). Due to socialisation and inexperience female entrepreneurs tend to be more comfortable, in dealing with smaller, technical problems as opposed to the overall perspective of the entire business (Chinomona, Maziriri & Moloi, 2014). According to Adeel Anjum *et al.* (2012), one of the most common findings of literature relating to gender differences is that the leadership styles used by females is democratic and participative as opposed to males, that display a more autocratic and directive leadership.

#### **2.4.12 Lack of business management, skills training and experience**

Strong business skills, especially ideas generation, has a big influence on the success of an enterprise. Since the level of business skills is highly dependent on the stage of business's development, it is argued that females face difficulties in acquiring these skills, early in their business life cycle, which causes their businesses to be less profitable than at later stages when they have gained more business skills (Adeel Anjum *et al.*, 2012).

Herrington and Kew (2016) indicate that limited education opportunities as well as education systems may severely hinder female involvement in entrepreneurial activities, further stating that females often experience limited access to education. Adeel Anjum *et al.* (2012) highlighted that most female entrepreneurs have no business experience, and many have little management experience as well. As much as female entrepreneurs may possess a higher level of education than male entrepreneurs, the qualification and contents of their education tends to be unrelated to entrepreneurship, than those of their male counterparts (Adeel Anjum *et al.*, 2012). According to Herrington and Kew (2016) and Birley, Moss and Saunders (1987), females also have minimal managerial skills and also lack managerial job opportunities as a result of the historical discrimination they suffer, resulting in limited access to appropriate management and entrepreneurship training (Herrington & Kew, 2016).

Herrington and Kew (2016) indicate that in South Africa, individual skills are currently a critical problem and further state that the skills that South African female entrepreneurs lack are finance management, ideas origination, executing and developing a feasibility analysis, exporting and technological skills.

Females consider themselves as lacking financial abilities as well as possessing inadequate marketing and operations skills (Akhalwaya & Havenga, 2012). This argument is further supported by Hughes *et al.* (2012) who stated that the lack of financial management experience, also adds to the problems experienced by females and noted in addition that this lack of financial management experience comes from the limited financial management training that females have due to the various interruptions they experience in their work careers. The low literacy rates and limited training in information technology has resulted in most African females in Africa being unable to take

as much advantage of the changes emanating from globalisation, thus lagging females in other parts of the world (Katepa-Kalala, 1999).

Furthermore, Mandipaka, (2014) indicated that a lack of relevant work or management experience for female entrepreneurs limits their choice of sector for their start-ups, to sectors with low entry barriers.

#### ***2.4.13 Lack of female role models***

Research on the backgrounds of businesspeople and role models indicates, that there exists a strong link between role models in a person's life and the emergence of entrepreneurs (Ascher, 2012). According to Mattis (2004), female entrepreneurs do not have enough female role models. There is a need for successful businesswomen to become more noticeable in order to become role models' women aspiring to become entrepreneurs. Similarly, female entrepreneurs lack familiar alternative role models to support their ambitious growth goals. This lack results in female entrepreneurs having, minimal enterprise growth expectations (Akhawaya & Havenga, 2012). The limited access to mentors was found to be a great inhibitor to female enterprise success (Gangata & Matavire, 2013). Adeel Anjum *et al.* (2012) revealed that with the publication of success stories about female entrepreneurs, this problem reduced. Gangata and Matavire (2013) also concluded that most successful entrepreneurs have successful role models in their family or workplace.

#### ***2.4.14 Lack of timely information***

Access to networks is the main source of crucial information and contracts but this often comprises overt mechanisms of gender exclusion (Bruni *et al.*, 2004). However, a lack of timely information leads to fragmented knowledge, thus inhibiting the correct decisions about business. appropriate decisions about policy on female business are often limited by the shortage of timely and reliable information (Derera, 2011). In addition, Hughes *et al.* (2012) found that support from close networks, such as family, is a decisive business support factor.

## **2.5 Past research on Female Entrepreneurship**

In the 1970s and 1980s, research on female entrepreneurship was deep-rooted in early trait psychology, mainly focussing on a better understanding of the female entrepreneur. These works suggested that the motivations of female entrepreneurs differed slightly from male entrepreneurs, with some concentrating on comparisons of men and female entrepreneurs (Mazonde, 2016). The idea was to develop an 'ideal profile' of the woman entrepreneur distinguishable from a non-entrepreneur. Studies of female entrepreneurs addressed similar questions as those of men. The majority of what was known about female entrepreneurs was their background, their motivation for starting their businesses, and the problems they encountered in their businesses (Mazonde, 2016).

Schwartz (1976) published the first research paper on female entrepreneurs in 1976, where she explored the attitudes, characteristics and motivation of female entrepreneurs that led them to become business owners (Schwartz, 1976; Greene, Hart, Gatewood, Brush, & Carter, 2003). Using male-based measures as a yardstick, she found that, like men, females were motivated by the need to achieve, job satisfaction and independence (Schwartz, 1976). She also revealed that at start-up level, female entrepreneurs faced credit discrimination, which negatively affected their business initiation (Schwartz, 1976; Derera, 2011). She further identified that females tended to have an autocratic leadership style and underestimated operating and/or marketing costs. (Schwartz, 1976). Following on Schwartz's study, Decarlo and Lyons (1979) conducted a comparative investigation of minority and non-minority businesswomen in America, which found differences between the two groups. The two groups differed on tests measuring autonomy, achievement, aggressiveness, conformity, independence, benevolence, leadership and the age of starting their business. Non-minority female entrepreneurs were found to score higher on ratings of need for achievement and independence whilst minority female entrepreneurs appeared to place greater importance on conformity and benevolence.

Hisrich and O'Brien (1981) took a business and sociological perspective of a woman entrepreneur when they studied the entrepreneurial challenges faced by women entrepreneurs, their characteristics and motivations. They reported that the female entrepreneurs lacked collateral to enable them to secure the required credit (Ascher,

2012). Furthermore, it was discovered that females experienced difficulties in overcoming societal belief, and that females were not as serious about business as men were. This was reinforced by Ascher (2012) and Derera (2011).

Female entrepreneurs were also found to lack the support normally given a wife to her husband, a factor which was found to be crucial to the eventual success of an. Birley *et al.* (1987) as quoted by Akhalwaya and Havenga (2012), in their study of British women, found that less women utilised family as labour, contrary to what was a common practice by men. This supported Hisrich & O'Brien's (1981) as well as Scase and Goffee's (1982) views that the often-understated support of wives may be an important contributor to the success of new firms. Difficulty in obtaining funding was also noted as another major hindrance for female entrepreneurs (Gangata & Matavira, 2013; Adeel Anjum *et al.*, 2012).

Hisrich and O'Brien (1982) reported noticeable differences in the characteristics of female entrepreneurs according to the type of businesses they owned. Successful female entrepreneurs had a supportive family and were older and more educated than the average woman. However, those female entrepreneurs, that operated in traditional "female" type business areas, such as retail and wholesale trade, had particular difficulty in gaining access to financial assistance from financiers; more so than those that operated in non-traditional female type business areas, such as finance, insurance, manufacturing and construction. It was therefore concluded that entrepreneurship education played a major contributor in the start-up, being either in a female enterprise operating in a "traditional" or "non-traditional" sector (Jennings & Brush, 2013).

Brush and Cooper (2012) estimated that females constituted the fastest growing group of entrepreneurs in USA. They also discovered that there were minor differences between female and male entrepreneurs as both were motivated by the need for job fulfilment, independence and financial needs (Hisrich & Brush, 1983; 1984; 1985), reinforcing Schwartz's (1976) earlier findings. These findings were later endorsed by Holmquist and Sundin (1988) as quoted by Jennings and Brush (2013).

However, Watkins and Watkins (1983) in their research on the backgrounds and characteristics of British female entrepreneurs argued that, while the prior established motivations by authors Hisrich and Brush (1983) and Schwartz (1976), may be present,

aspiring female entrepreneurs, required greater stimuli than their male counterparts to make the final decision to become entrepreneurs, a point which Tuck (1985) further reinforced. In addition, Watkins and Watkins (1983) as quoted by Akhalwaya and Havenga (2012), found that unlike their male counterparts, females lacked confidence in numerical skills and in managerial experience and they needed the support of their husbands.

Hisrich and Brush (1984) in their pioneering longitudinal study of 468 female entrepreneurs in the United States, described the average female entrepreneur as having a college degree, married with children and having a supportive professional husband. Furthermore, they reported that the female entrepreneurs faced business start-up problems with finance, credit, and a lack of business training. In addition, as the business continued, female entrepreneurs experienced difficulties due to poor financial planning (Arogundade, 2011).

Hisrich and Brush's (1985) findings on the characteristics of female entrepreneurs, supported Hisrich and O'Brien's (1982) earlier findings that most business women, had a self-employed father, was from a well of family, between middle to upper class, she was the eldest and educated to a degree level, she was also married with children, at the age of forty to forty-five years and at start-up level with relevant experience in the chosen type of business. Furthermore, they discovered that females suffered from inadequate business skills (Hisrich & Brush 1985). In their follow up study, Hisrich and Brush (1987) discovered, that many female entrepreneurs had moderate growth rates in their revenues, of less than half of that enjoyed by male entrepreneurs (Hisrich & Brush, 1987). Holmquist and Sundin (1988) as quoted by Mandipaka (2014), in their study of Swedish female entrepreneurs, discovered that they tended to balance social and economic goals. While on the other hand, Birley *et al.* (1987) as quoted by Singh (2012), noted that research had implied that entrepreneurship was a male activity (Ascher, 2012). Holmquist and Sundin (1988) advocated for more research into the situational and cultural environments of female entrepreneurs, specifically, attitudes, managerial skills and the type of education that encouraged entrepreneurship.

Subsequent to those early works, research on female entrepreneurship gained momentum right through the 1990s (Singh, 2012). Researchers again discovered a



common trend in most of their studies that continued to confirm the notion that entrepreneurship was a male activity (Brush, 1992; Singh, 2012). The early 1990s was an era for feminist-inspired studies of female entrepreneurial behaviour theories (Hurley, 1999; Greer & Greene, 2003). In the late 1990s, the focus was on entrepreneurial teams and networks (Greve & Salaff, 2003) as well as on studies of female-owned businesses (Bird & Brush, 2002; Burke, Fitzroy & Nolan, 2002; Stewart, Carland, Carland, Watson & Sweo, 2003).

In 1999, academics realised that, whilst there was an increase in female entrepreneurs, research on female entrepreneurship stagnated. It was then that the Diana International Project was established (Daymard, 2015). This project investigated female entrepreneurs and found that their businesses were smaller than those of male entrepreneurs in terms of revenue, employees and growth prospects. Greene, Brush and Gatewood (2006) ascertained that due to limited capital, female entrepreneurial endeavours struggled to prosper and remain sustainable. The Diana International project emphasised the need to contextualise each woman's unique circumstances, her family situation as well as all the other institutional factors (Daymard, 2015).

Greene *et al.* (2006) argued that research about female entrepreneurship can be divided into two distinct eras: the 1980s, where gender was considered a variable; and the 1990s where gender was used as a lens. Gender became a lens with which to carry out research, not just a variable to measure context (Greene *et al.*, 2006). Minniti (2009) noted that the first two decades of research on female entrepreneurs extensively raised awareness as to the value of female participation in entrepreneurship. Minniti (2009) as quoted by Ascher (2012) further acknowledged that there male and female entrepreneurs were not the same, highlighting that the main differences that affected entrepreneurial success, included socioeconomic qualities such as the level of education, affluence, family conditions and previous employment experiences (Ascher, 2012). Conversely, Kepler and Shane (2007) reported that female entrepreneurial endeavours were not too different from male entrepreneurial endeavours, post adjusting for issues such as the scale of the enterprise, the geographic area as well as the sector in which the entrepreneurial endeavours operate. Jennings and Brush (2013) argued that the continued perception that female entrepreneurs should be measured against male entrepreneurs promoted the notion that females were less capable entrepreneurs. As a result, scholars have canvassed

for new research directions on female entrepreneurs, that looks further than understanding the gender gaps (Ahl, 2006; Hughes *et al.*, 2012).

According to Brush and Cooper (2012) the phenomenon of female entrepreneurship has grown significantly. However, there remains tremendous disparity in the contribution and participation of female entrepreneurs as well as the amount of research conducted in this area. Furthermore, the assumptions promoted by previous authors in this area, that all entrepreneurs are the same, perpetuates theoretical and methodological research that pays little attention to social and cultural dimensions (Ahl, 2006; Brush & Cooper 2012). Female entrepreneurship occurs under different conditioning circumstances in a society where the predominant ways of doing business have been defined by male entrepreneurial perspective (Peris-Ortiz, Rueda-Armengot & Benito-Osorio, 2012). Research on female entrepreneurship has predominantly adopted individual level approaches to explain entrepreneurial behaviours and has mostly ignored other factors that may explain the variance in the rates of women entrepreneurial endeavours in different countries (Ekinsmyth, 2013; Pathak, Goltz & Buche, 2013). Overlooking context leads to the assumption that all entrepreneurs are homogeneous across the different contexts in existence across nations. In order to fully grasp individual entrepreneurial behaviours, the influence of the unique contexts need to be understood (Shane & Venkataraman, 2000). Scholars are encouraged to recognise contextual differences in the lives of females and to conceptualise, female entrepreneurship as embedded in family life (Ekinsmyth, 2013). Female entrepreneurs have the intuition to perceive opportunities, but their social and family circumstance usually reduces the time and energy they have to perceive reality and pursue it (Bahmani-Oskooee *et al.*, 2012).

Female entrepreneurs are far more researched in developed countries as opposed to developing countries (Brush & Cooper 2012). This research has facilitated the development of theories pertaining to female entrepreneurship, which have been limited in the case of developing countries (Brush & Cooper 2012; Terjesen, Jolanda & Li, 2013; Rao, 2014). The social structures (Aldrich *et al.*, 1989) vary substantially in developing countries (Brush & Cooper 2012; Terjesen *et al.*, 2013; Rao, 2014). This means that those theories and prescriptions for success derived from developed countries may not be compatible with developing countries.

The developing world is continually experiencing growth in the number of females in entrepreneurial participation (Kevane & Wydick, 2001). Female entrepreneurs are perceived as the key to entrepreneurship, because of their distinctive roles in the family structure which is due to growth in female-lead families in many developing countries (Horrell & Krishnan, 2007). Another reason is the increased awareness of female entrepreneurship in economic development (Gries & Naude, 2011; Naude, 2010), coupled with the fact that females also spend more on household needs and their children's education, and tend to employ more females in their firms (Sahar, Sotos & Garcia, 2012).

The importance of female participation in the South African economy cannot afford to be downplayed at all, especially considering the tremendous value that may be leveraged from their unique disposition in society (Derera, 2011; SBP, 2013; Mandipaka, 2014), as well as the fact that the last published census results revealed that approximately 52% of the total population of South Africa, the majority of the population, (Herrington & Kew, 2016) are females. They are therefore crucial participants in the South African economy. While some studies on female entrepreneurs have been completed in South Africa (Derera, 2011; SBP, 2013; Mandipaka, 2014), little research has focussed on the entrepreneurial intentions of females following university level entrepreneurial education.

This section has reviewed some of the important literature on the various research into female entrepreneurship as well as the importance of this subject to developing economies. The next section will provide contextual understanding on entrepreneurship education, based on reviewed literature from renowned authors on the subject.

## **2.6 Defining Entrepreneurship Education**

According to Bae *et al.* (2014), education is the theory and execution of teaching a subject. The Consortium for Entrepreneurship Education (2004) defined entrepreneurship as a learning process that never ends, through 5 different phases; basics, awareness of competence, application of creativity, start up and finally, growth of the enterprise

Jones and English (2004) describe entrepreneurship education as skilling individuals with the knowledge and attitudes to respond to business opportunity. It can also be defined as the transfer and facilitation of knowledge about how, by whom, and with what

effects, opportunities to create future commodities are discovered, evaluated and finally exploited (Jones & English, 2004). Ladzani and Van Vuuren (2002) conducted a study in which entrepreneurship education, is defined as a three-legged pot of motivational, entrepreneurial and business skills development.

According to Alberti, Sciascia and Poli (2004), entrepreneurship education is a structured and formal process of transferring business skills, for use by individuals in the process of starting and developing their business ventures. Isaacs, Visser, Friedrich and Brijal (2007) defined entrepreneurship education as the intentional intervention of a teacher in his or her student's life, to transfer entrepreneurial competencies and skills with the objective of enabling the student or prospective entrepreneur to succeed in the world of business (Alberti *et al.*, 2004; Isaacs *et al.*, 2007). Ultimately, entrepreneurship education may be defined as sharpening the requisite competencies that are necessary for a prospective entrepreneur to successfully establish and operate a business (Chimucheka, 2014).

### ***2.6.1 Objectives of Entrepreneurship Education***

Karimi, Chizari, Biemans and Mulder (2010) suggested that entrepreneurship education must prepare people for entrepreneurship. They further state that the main purpose of entrepreneurship education should be to encourage the development of new entrepreneurs, that can establish new businesses (Tobias & Ingrams, 2010). It should prepare people to be responsible and enterprising, entrepreneurial thinkers and contributors to sustainable economic development (Arogundade, 2011). Furthermore, entrepreneurship education should encourage creativity, strong sense of self-worth and accountability, all characteristics necessary in an entrepreneur (Arogundade, 2011). Government, academics and business leaders have advocated for entrepreneurship education, in the attempt to develop entrepreneurial businesses that can create a competitive advantage in their products as well as to the nation economy (Frederick, 2007).

Gangata and Matavire (2013) outlined three main sources that are in dire need of entrepreneurship education; the business world, government and students to aid them to advance their understanding of the entrepreneurial process. Burger, O'Neill and Mahadeo (2005) highlighted the expectations of entrepreneurship education, which were : for

government, the expectation that entrepreneurship education will assist with new jobs, growth in the economy, skills development and the cultivation of an entrepreneurship culture to eradicate poverty; and for businesses, the expectation that it will establish a general understanding of basic business issues, creative attitudes towards work and an entrepreneurship culture among learners. Learners require entrepreneurship education to help them in starting their new ventures as well as to grow the requisite skills that will help them to become marketable to larger organisations. Entrepreneurs want entrepreneurship education to equip them with the necessary skills needed to solve the problems they experience in their businesses as they seek to expand their businesses, increase their profits and market share (Burger *et al.*, 2005).

The common entrepreneurship education objective are; to gain knowledge about entrepreneurship and skills to use certain techniques in analysing business situations and in the organisation of action plans (Arogundade, 2011). This objective promotes the skills of analysing and synthesising of accounting, marketing, finance and general management knowledge; identifying and encouraging entrepreneurial motivation, talent and skill; developing empathy as well as support for unique entrepreneurship aspects; undoing risk averse bias; reviewing attitudes towards change; encouraging new businesses; and to stimulate the 'effective socialisation aspects in oneself' (Kgagara, 2011). It is the understanding of these objectives provides a deeper appreciation of the different audiences of entrepreneurship education (Kgagara, 2011).

### ***2.6.2 Entrepreneurship Education and Career Choice***

There is an abundance of studies such as Matlay (2008) and Saini and Bhatia (2007) that investigate the connection between entrepreneurial education and entrepreneurship. These studies were conducted from both a quantitative and qualitative paradigm and cover different approaches; from the trait approach to the intentions-based approach.

These will be presented in this section.

Dickson, George, Solomon and Weaver (2008) concluded a qualitative study in the USA to investigate the relationship between general education, specific formats of entrepreneurial education as well as a range of entrepreneurial activities. The findings of this investigation confirmed that there was a positive relationship between

entrepreneurship education as well as both the choice to become an entrepreneur and eventual entrepreneurial success.

In a similar sense Matlay (2008) also conducted a qualitative study where the influence of entrepreneurship education on entrepreneurial outcomes was investigated. The results revealed that the graduate's needs for entrepreneurship education had no link to actual outcomes in terms of entrepreneurial skills, knowledge and attitudes. This mismatch influenced an entrepreneur's views of actual and future educational needs. However, most of the graduate entrepreneurs were satisfied with the of their entrepreneurship education. However, this study fell short when it came to articulating whether graduate entrepreneurs intended on establishing businesses in the future.

In Australia, Peterman and Kennedy (2003) conducted a quantitative study that examined the influence of participation in an entrepreneurship education program (ETP) on the perceptions of the desirability and feasibility of starting a business. This was conducted, by analysing changes in perceptions of a sample of 236 secondary school students that had been enrolled in the Young Achievement Australia (YAA) enterprise program. The analysis was conducted through a a pre-test and post-test control group research design. After completing the entrepreneurship program, respondents recorded much higher perceptions of both desirability and feasibility.

Gird and Bagraim (2008) also conducted a quantitative study in South Africa, to evaluate the theory of planned behaviour (TPB) as a predictor of entrepreneurial intention, amongst 247 final-year commerce students at two higher education institutions. The results of analysis indicated that the TPB significantly explained 27% of the variance in students' entrepreneurial intentions. They further found that, from all the purported predictors of entrepreneurial intent examined in the study, only prior exposure to entrepreneurship improved the predictive power of the TPB in explaining entrepreneurship intention. The findings therefore confirmed that the TPB is an important tool for predicting entrepreneurial intent.

In a more recent study conducted by Muofhe and Du Toit (2011), which assessed the link between entrepreneurial education, role models and students' intentions to choose entrepreneurship as a career option, it was found, that there is a positive relationship

between entrepreneurship education and entrepreneurial intention of a students at a higher education level. The study further revealed that the attitude of entrepreneurship students was more positive towards becoming entrepreneurs and displayed greater entrepreneurial self-efficacy and intentions of becoming an entrepreneur than non-entrepreneurship students.

In conclusion, it is evident from the various studies presented above that there is a positive connection between entrepreneurial education and venture creation. However, evident from the studies mentioned in this section, most research was conducted outside of South Africa, more specifically from a UK context, implying that this topic is under researched in the SA context.

## **2.7 Entrepreneurship Intentions**

GEM identifies entrepreneurial intention as the percentage of those between the ages of 18 and 64, currently not engaging in business, that intend on establishing a new venture within the next three years (Herrington & Kew, 2016).

The 2016/17 GEM Global Report recorded much higher entrepreneurial intentions among factor-driven economies and much lower rates of entrepreneurial intentions among innovation driven economies This proved that new ventures were more prevalent in areas where there were limited income generating opportunities (Herrington, Kew & Mwanga, 2016).

According to Ajzen (1991), proved that intention is an immediate antecedent of behaviour. He claimed that behaviour is not result mindlessly but rather culminates reasonably and consistently from the behaviour-relevant information. Furthermore, he argued that behaviour is encouraged by rewarding events and discouraged by pushing events. Certain individuals may like to be self-employed if they perceive that entrepreneurship is a suitable career path for them (Herrington *et al.*, 2015) and is perceived as an appropriate way for them to achieve their personal goals, (Barringer & Ireland, 2010).

Bird and Brush (2002) proposed that entrepreneurial intent is an individual's state of mind aimed at building a new venture, business concept or new value within an existing enterprise. Furthermore, entrepreneurial intention is a crucial factor in causing new venture establishment and has significant implications on the business's success, survival and further growth. He suggested that entrepreneurial intentional process often begins with an entrepreneur's personal needs, values, wants, habits and beliefs.

Studying entrepreneurial intention provides researchers with important insights to understand the entrepreneurial process and prediction of entrepreneurial behaviour, through the identification of the antecedents of entrepreneurial intention (Ismail *et al.*, 2009). In a longitudinal study, by Kolvereid and Isaksen (2006) involving 297 business founders, they discovered that intentions to be self-employed did predict later entry into self-employment. Usually, individuals do not start a business spasmodically: they do it intentionally (Krueger *et al.*, 2000).

According to Krueger (2007) intention mediates between entrepreneurial behaviour and the individual's exogenous influences pertaining to entrepreneurship (traits, demographics, skills, and social, cultural and financial support). They further suggested that entrepreneurial intentions provide clarity in understanding why certain individuals tend to commence business prior to a thorough opportunity scan or deciding the type of business to get into. Furthermore, entrepreneurs themselves should benefit from a better understanding of their own motives. Intentions afford them a chance to understand what factors drive them to make their decisions to pursue an entrepreneurial career and how the venture becomes a reality.

The literature from past research suggests that entrepreneurship education needs to be incorporated into entrepreneurship intentions model (Krueger, 2007; Peterman & Kennedy, 2003). This is because entrepreneurship education, as it has been established through the objective of entrepreneurship education in the previous section, transforms individuals' attitude, subjective norms as well as behavioural control towards entrepreneurship, which then increases the requisite beliefs that affirms them about an entrepreneurial career (Kolvereid & Isaksen, 2006; Tam, 2009).



Furthermore, the objectives observed for teaching entrepreneurship are heavily linked to the realisation of the eventual entrepreneurial behaviour, which initially may only be observed through intention. A qualitative study conducted by Dickson et al., (2008), investigating the influence of entrepreneurship education on the entrepreneurship outcomes of subjects revealed that there was a strong positive link between entrepreneurship education, entrepreneurship intention as well as entrepreneurship behaviour, in line with the conceptual framework in the section below

## **2.8 Conceptual Framework for the Study**

### ***2.8.1 The Theory of Planned Behaviour (TPB)***

An attitude towards behaviour is conceptualised as “the degree to which a person has a favorable or unfavourable evaluation of the behaviour in question”, in this case entrepreneurship (Ajzen, 2002: 5). An attitude towards entrepreneurship behaviour is the difference between the concepts of a personal desire for an entrepreneurial career and the desire to work as an employee (Souitaris, Zerbinati, and Al-Laham, 2007).

‘Subjective norm’ emanates from perceived societal pressure to behave in a certain manner or do certain actions (Solesvik, Westhead, Kolvereid and Matlay, 2012). It refers to the opinion of significant others about whether to perform the action. These factors have an influence on whether a person will choose to perform the action - in this case, become an entrepreneur. (Ajzen, 2001; Solesvik *et al.*, 2012; Liñán and Chen, 2006). Ajzen’s theory of planned behaviour has however rendered contradictory results when testing subjective norms in the context of entrepreneurship intentions. Although researchers such as Souitaris *et al.* (2007) as well as Malebana and Swanepoel (2014) have found that subjective norms do predict an individual’s entrepreneurial intention, Krueger *et al.* (2007) had found that there was no relationship.

Perceived behavioural control reflects an individual’s controlling beliefs about the activity being studied i.e. entrepreneurship (Solesvik *et al.* 2012). Liñán and Chen (2006) defined the term as “the perception of the easiness or difficulty in the fulfilment of the behavior of interest , these components capture, how hard people are willing to try and of how much an effort they are planning to exert, in order to perform the behaviour” (Ajzen, 1991).

Firstly, TPB has been proposed as an antecedent of entrepreneurial behaviour (Ferreira, Raposo, Rodrigues, Dinis and do Paco, 2012) Secondly, entrepreneurship education (EE) has been proven as a strong antecedent of entrepreneurship intention (EI). Two theoretical ideas (theories) have been developed, that uphold this relationship: (i) human capital theory (Becker, 1964); and (ii) entrepreneurial self-efficacy (Bae *et al.*, 2014). Human capital theory maintains that, human capital represents the knowledge and skills that individuals acquire by investing in education, on-the-job training as well as other types of experiential learning (Bae *et al.*, 2014). Entrepreneurship education is regarded as a determinant of EI. Figure 1 refers to the intentions model that incorporates the resultant impact on entrepreneurship intention, as each antecedents of entrepreneurship intention is subjected to the entrepreneurship education

### ***2.8.2 Expanded Integration of entrepreneurship education into the theory of planned behavior***

According to Chimucheka (2014) entrepreneurship education sharpens the requisite competencies necessary for successful establishment of a business someday. However the measurement of eventual business establishment becomes a future expectation, which may only be viewed through the subjects intentions.

The conceptual framework, that was expanded from Ajzens(1991) Theory of planned behaviour follows that, as the individuals are exposed to entrepreneurship education, the variables that predict intentions; attitude towards entrepreneurship, subjective norms of entrepreneurship as well as behavioural control over entrepreneurship, are transformed towards a favourable entrepreneurship intention. The transformative nature of education, transforms, the negative perceptions, that may have existed in participant that had no interest in entrepreneurship as well as enhances, the interest and thus intention of those that may have had pre-conceived interest in entrepreneurship (Dickson et al, 2008).

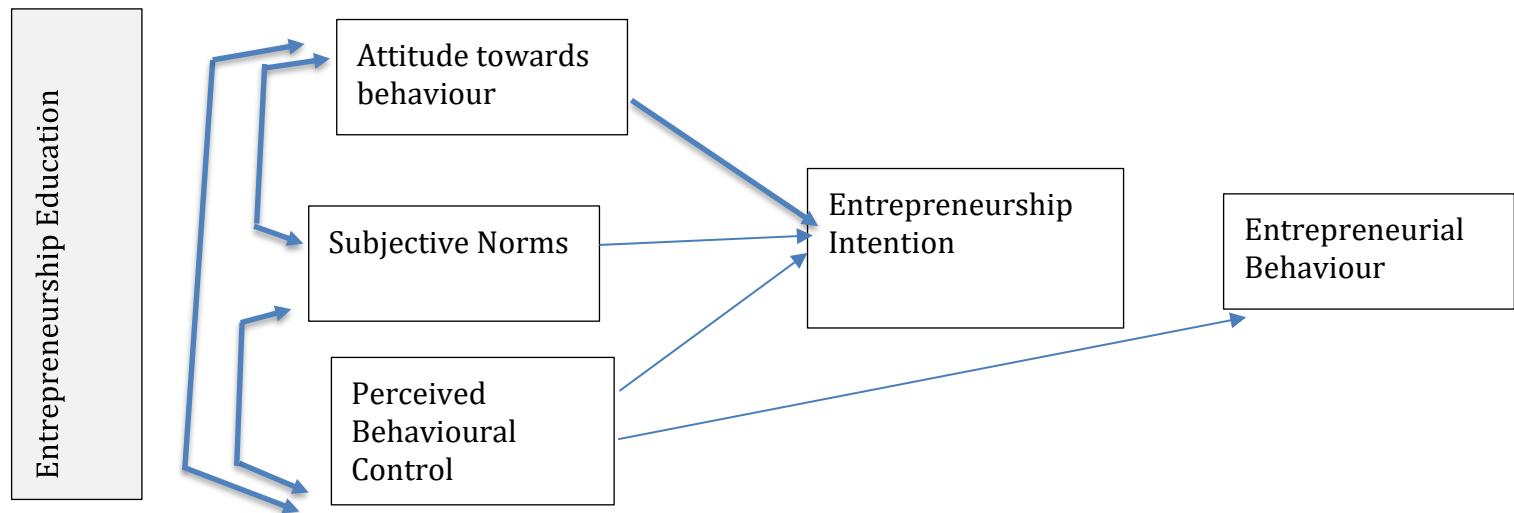


Figure 1: Conceptual Model Figure 2: Integration of entrepreneurship education into the theory of planned behavior (Dickson *et al*, 2008)

## 2.9 Summary

This chapter has presented the relevant research work that has been conducted, as well as the significant findings that have been uncovered from previous research, which included research in; female entrepreneurship, entrepreneurship education as well as entrepreneurship intentions. This chapter has also served to discuss the conceptual framework which was adopted for this study. All discussions paid attention to the South African context and has laid the required foundation for the following chapter that will look at the research methodology.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter seeks to provide the research methodology that was used as a research plan to answer the research questions of this study. According to Kumar (2011), a research methodology is a crucial part in research ensuring that the research can be conducted correctly with specific and organised methods. In order to ensure that this research is conducted correctly, the elements of research methodology will be discussed in a coherent manner. These elements include research; design, approach, study site, target population, sample, sampling method, sample size, data collection methods, data quality control, data analysis and ethical considerations.

### **3.2 Research Design**

A research design is a strategic framework for action, which forms a link between research questions and the implementation of the research (Creswell, 2014). It is therefore a blueprint from which the research can be developed and concluded (du PlooyCilliers, Davis & Bezuidenhout, 2014). There are various types of research designs, namely; case study design, exploratory design and causal research design. However, the researcher used causal research design to address the research problem of this study. The main aim of this study was to understand the influence of entrepreneurship education on the entrepreneurial intentions of UKZN female students aspiring to be entrepreneurs. There is a dearth of information on the research problem of this study. As such, causal research design was more appropriate for this study. According to Mooi, Sarstedt and Mooi-Reci (2018), causal research is conducted when the researcher wishes to understand what impact a change will have on existing norms and assumptions. In this case, causal research was conducted to ensure that the research problem was suited to a precise investigation or to frame research hypotheses around the research problem.

### **3.3 Research Approach**

Research approaches falls under either quantitative, qualitative or mixed methods research paradigms (Creswell, 2014). Below is a discussion of two of these paradigms as well as an explanation of what makes them distinct from each other, more so the reason behind why this study adopted a quantitative paradigm

### ***3.3.1 Quantitative Research Approach***

This study used a quantitative research approach. According to Neumann (2011), quantitative research refers to studies that seek to measure some concepts or phenomena of interest using variables, hypotheses and units of analysis. Quantitative research is conducted to describe new situations, events or concepts. Quantitative research is based on a post-positivist philosophy, which assumes that reality is objective, fixed, stable, observable, measurable and value free (Babbie, 2013). According to Garbarino and Holland (2009), the quantitative research approach begins with a research question or a hypothesis and then designs the study to collect data to undertake some sort of numerical analysis to answer the research question or provide evidence to confirm or refute a hypothesis. This study made use of the quantitative research approach since this approach applies deductive reasoning methods to argue, from what is unknown to reach the conclusion. As such, a quantitative research approach was more aligned with the research design of this study.

### ***3.3.2 Qualitative Research Approach***

A qualitative research approach refers to a method of study that displays, analyses, summarises and interprets words and images based on the raw data that was collected by a researcher (Babbie, 2013). According to Neumann (2011), qualitative research refers to studies that are subjective in nature, but are nevertheless in-depth, that uses probing, open-ended and a free response format. Qualitative research allows a researcher to collect data that is rich in textual description of how a target population is experiencing a phenomenon (Babbie, 2013).

## **3.4 Study Site**

A study site is the physical place where data is collected or the research is conducted (Quinlan, 2011). This study was conducted at UKZN Pietermaritzburg campus.

### **3.5 Target Population**

A population is a group from which the sample is drawn. Cooper and Schindler (2008) define a target population as the total number of elements with special characteristics determined by a researcher. The population of this study consisted of third year female students that had at their second year completed either one of the entrepreneurship modules offered at second year (ENTRE2EN or ENTR2IE) by the University of KwaZulu-Natal, Pietermaritzburg campus in 2017.

### **3.6 Sample Size**

A sample size is the number of elements (or people) to be included in the study (Malhotra, 2010). The researcher used Krejcie and Morgan's (1970) table to estimate a reasonable sample size for the study. To use this table the researcher needs to know the total number of a given population in order to determine a sample size (Krejcie and Morgan, 1970). According to the university database UKZN (2017), there were 320 female students that were registered for the Entrepreneurship modules on UKZN Pietermaritzburg campus in 2017; the sample size for this study was calculated to be 175 female Entrepreneurship students, the final sample size that was recorded according to those that participated was 74.

### **3.7 Sampling Approach**

A sampling method refers to strategies used to obtain a sample, including probability and nonprobability sampling techniques, also called a sampling plan (du-plooy-Cilliers et al., 2014). Various sampling techniques are further discussed below.

#### ***3.7.1 Probability Sampling***

Probability sampling is the primary method used in selecting a large, representative sample. In this sampling technique, the researcher selects participants for inclusion in the sample, so that all individuals have an equal possibility of being chosen from the population (Creswell, 2014). There are three forms of probability sampling; simple random, stratified and multistage cluster sampling (Creswell, 2014).

### *Simple Random Sampling*

For this form of sampling, the researcher chooses participants for inclusion in the sample so that any individual from the population has an equal probability of being selected for participation. The intent of simple random sampling is to choose individuals who will be representative of the population, thus allowing any bias in the population to be equally distributed among those chosen participants (Creswell, 2014).

### *Systematic Sampling*

Systematic sampling is a small variation of simple random sampling. For this technique the researcher chooses every ninth individual or site in the population, until s/he reaches the desired sample size. Although this procedure lacks the precision and rigour of random number tables, it is more convenient (Creswell, 2014).

### *Stratified Sampling*

In stratified sampling, the researcher divides or stratifies the population based on a specific characteristic, creating subgroups based on each trait. Then through simple random sampling, the researcher obtains samples from each subgroup, thus ensuring that the complete sample includes specific traits required by the researcher in his sample (du Plooy-Cilliers et al., 2014).

### **3.7.2 Non-probability Sampling**

A non-probability sampling technique is used where the researcher is unable to select the kind of probability samples used in comprehensive studies. In this type of sampling the researcher chooses individuals because they are readily available, convenient and represent some characteristic s/he seeks to study (Babbie & Mouton, 2011). Some situations may necessitate that the researcher involves participants who volunteer and agree to be studied (Babbie & Mouton, 2011). Furthermore, the researcher may not be interested in generalising his findings to a population, but only interested in describing a small group of participants in his research. It may also be simpler to calculate descriptive statistics on these samples and compare the results with the bigger population to make extrapolations from the sample to the population. There are three popular approaches to non-probability sampling commonly used by researchers: convenience, snowball and purposive sampling (Babbie & Mouton, 2011).

### *Convenience Sampling*

Convenience sampling is a non-probability sampling technique which involves a conscious subjective selection of certain elements or subjects, to participate in the study by the researcher (Saunders *et al.*, 2009). This technique enables the researcher to select elements of the population that are easily accessible and provides rich information that deepens the study findings (Creswell, 2014; Malhotra, 2010). The selection of elements is primarily left to the researcher (Malhotra, 2010). According to Malhotra (2010), convenience sampling is the least expensive and least time-consuming of all the sampling methods in that the elements are easily accessible, easy to measure and cooperative. The limitation of this type of sampling is that it is prone to bias and influence beyond the control of the researcher as the cases are selected mainly on the easy accessibility of the respondents (Creswell, 2014; Saunders *et al.*, 2009).

### *Snowball Sampling*

Snowballing is an alternative to convenience sampling, which involves the researcher asking the initial participants to identify others to be included in the sample. The advantage of snowball sampling is that it can recruit large numbers of participants. The disadvantages of this form of sampling is that the researcher has no control over exactly which individuals are included in the sample and it is also impossible to identify the participants that do not return questionnaires. Furthermore, respondents may not be representative of the respondent to the study (du-plooy-Cilliers *et al.*, 2014).

### *Purposive sampling*

This study used purposive sampling. According to Saunders, Lewis and Thornhill (2009), purposive sampling allows researchers to use their discretion to select cases that best answer the research questions and meet the study objectives. Purposive sampling is also known as judgemental sampling (Saunders *et al.*, 2009). Furthermore, purposive sampling allows the researcher to rely on their experience, ingenuity and previous research findings to choose elements of the population that are of the study (Malhotra, 2010). This type of sampling technique is often used to select cases that are highly informative about the research problem and is normally used for case study research studies (Saunders *et al.*, 2009). According to Malhotra (2010), judgemental sampling is a low cost, quick and convenient way of collecting primary data. This sampling approach was used in two different ways in this study. Firstly, purposive sampling technique was



used to narrow down the research population, to best fit the focus of the study (third year female students). Secondly, purposive sampling was used to distribute the questionnaire to the research participants of this study. This study used purposive sampling because it helped the researcher to focus on the characteristics of a population that were of interest (third year female students), to address the research objectives of this study.

### **3.8. Data collection**

The researcher collected both primary and secondary data to fulfil the research objectives. According to Babbie and Mouton (2011), primary data is data that the researcher collects for the study in his current study (Creswell, 2014). For primary data, a questionnaire survey was used. According to Babbie (2013) secondary data includes both processed as well as unprocessed data. In secondary data, the internet, published journal articles, textbooks as well as government websites and conference papers were used. For secondary data a review of relevant literature was carried out in order to provide a detailed background of entrepreneurship education and entrepreneurship intentions, The purpose of this literature review, was to ensure that the researcher had a full grasp of the important variables, arising from past research, that have a bearing on his research problem as well as for him to consider these variables while conducting his study. Secondary data also forms an important foundation on which research is established (Fowler, 2013).

#### **3.8.1 Questionnaire**

A questionnaire is a research tool comprising of pre-formulated questions, to be answered by a respondent (Sekaran & Bougie, 2010). Questionnaires are efficient in data collection, especially when variables of interest have been identified (Sekaran & Bougie, 2010). The questionnaire design was based on the discoveries from the literature survey. Questionnaires are normally based on either open-ended or pre-coded questions or both. Open-ended questions are questions asked, without any prompting (Bryman & Bell, 2015; Sekaran & Bougie, 2010). Closed questions provide a respondent with a range of preformulated option, to choose from (Andrew, 2011; Sekaran & Bougie, 2010). The questionnaire for this study was made up of pre-coded questions and was distributed to the respondents of this study.

According to Sekaran and Bougie (2010) there are a variety of ways to administer questionnaires surveys, namely; personally, posted or electronically. In this study questionnaires were personally administered. The two main reasons why people do not respond to questionnaires are: (1) they simply did not receive the questionnaire or (2) they are not interested in responding to the questionnaire (Sekaran & Bougie, 2010). Fowler (2013) asserts that careful preparation and application of the right methodology can improve the response rate (also referred to as the return rate). The issue of low response rate can be mitigated, if not eliminated, using specific tactics which includes the 'drop-and-pick' mode (Fowler, 2013). In order to improve the response rate, the researcher opted to use personally administered questionnaires.

There are various advantages and disadvantages to using questionnaire surveys; some of these are stated below:

#### *Advantages*

Collection of data through questionnaire surveys has many advantages for researchers. Personally, administered questionnaires allow a researcher to motivate the research participants to participate in the research study and rapport can develop between researcher and participant (Sekaran & Bougie, 2010). A questionnaire can also ensure anonymity of the respondents, which may be important to the respondent, in the same time doubts about any of the questions can be clarified and the participant, may be encouraged to be even more truthful in their responses (Sekaran & Bougie, 2013).

Questionnaires can also be distributed to many respondents easily and at a comparatively lower cost, since a questionnaire does not have to be administered by the researcher in person (Fowler, 2013). Furthermore, a questionnaire allows for questions or item formats to be structured in the best way suitable for the research aims, by utilising the different questionnaire formats available (Johannesson & Perjons, 2014). Questionnaire design also allows for responses to be quantified, making it possible for the researcher to draw conclusions (Fowler, 2013).

### *Disadvantages*

There are however disadvantages as well to using questionnaires in data collection, According to Fowler (2013), it may seem as though people are forced to respond to the questionnaire, and the researcher and respondent may not be able to discuss a problem or question in detail and the respondents responses may be limited to the question at hand, regardless of whether a respondent wishes to share more valuable information on certain questionnaire formats (Johannesson & Perjons, 2014). In the instance where questionnaires are not researcher administers questionnaires may lack a systematic way for respondents to follow up to clarify meaning or to ensure validity (Fowler, 2013).

In addition, responses are limited to a certain amount of space and issues of most interest to participants may not be addressed, and there is generally a low return rate if questionnaires are mailed to participants (Johannesson & Perjons, 2014). Lastly for anyone to participate in the data collection, regardless whether they may have valuable insight on the subject under study, they must be able to read and write, which may hugely hinder the collection for many studies (Johannesson & Perjons, 2014).

In as much as Fowler (2013) refers to personally administered questionnaires as a “forced” process, this is not always the case since researchers are encouraged to uphold good ethical standards in conducting research. To upholding high ethical standards in research the researcher must clearly explain the objective of the study to respondent’s and they must be allowed to freely choose to either participate or not. Voluntary participation by the respondent is usually confirmed by the signing of the informed consent form. The respondent also has the liberty to pull out of the research process even after signing the informed consent form.

### ***3.8.2 Administration of Questionnaire Survey***

The questionnaire was personally administered by the researcher and his assistant. The assistant was carefully selected based on his qualifications and his knowledge of the study area. The research assistant has a master’s degree in commerce. The research assistant was a registered student at UKZN at the time when the study was conducted. This also served as an advantage in terms of convenience and the understanding of the campus environment. Questionnaires were delivered by the researcher to the research assistant who in turn distributed the questionnaires to the research participants in this study.

### **3.8.3 Questionnaire Design**

The questionnaire design was alignment with the research objectives of the study. According to Sekaran and Bougie (2013), a sound questionnaire design should focus on three key areas; (1) wording of questions; (2) Order of issues with regards to the manner of categorisation of variables, scaled and coded; and (3) the general presentation of the questionnaire. The information contained in the questionnaire was adapted from previous research studies conducted on the same study area. The questionnaire was divided into 2 sections; Section A for demographics and Section B for the research objectives of the study

**Section A:** This section provided space for the demographic information of the respondents. This information included race, and age.

**Section B:** This section of the questionnaire gathered information based on the research objectives of this study. This information is presented below:

1. **Attitude towards Entrepreneurship Education:** This section sought to collect information to understand the students' perceptions of entrepreneurship education.
2. **Subjective Norms about Entrepreneurship Education:** This section sought to collect information around subjective norms about entrepreneurship education whether or not they affected the students' entrepreneurial intentions.
3. **Perceived Behavioural Control over Entrepreneurship Education:** This section sought to collect data on whether or not students understood and liked entrepreneurship education.
4. **Intentions:** This section of the questionnaire sought to ascertain the link between entrepreneurship education and entrepreneurship intentions.

### **3.9 Data analysis**

Data was prepared prior to the analysis stage. Data preparation entails checking the quality (completeness and correctness) of the collected data (Welman *et al.*, 2005) and converting the data into a format that allows for analysis and interpretation to take place. For this study, the questionnaires were cross-checked for accuracy by the researcher. Precoding of questionnaires was done during the questionnaire design. Thereafter, the quantitative data was captured and analysed through the Statistical Package for Social Sciences (SPSS) version 20. Descriptive and inferential statistics were used to interpret quantitative data sets. Descriptive statistics used included bar charts as well as the mean. Inferential statistics used included the Pearson Correlation and the Statistical Significance (T-test).

#### **3.9.1 Correlation**

Correlation is a technique used to investigate relationships between interval or ratio variables and/or ordinal variables. Correlation assesses the strength as well as direction of relationships between the variables under review (Bryman & Bell, 2015). In statistics, there are 2 common statistics that may be tested: 1) The Pearson correlation, and the Spearman correlation (Bryman & Bell, 2015).

##### **3.9.1.1 Pearson Correlation**

The Pearson correlation coefficient ( $r$ ) enables the researcher to quantify the strength of a linear relationship between two ranked or numerical variables (Saunders *et al.*, 2009). Pearson's correlation coefficient ( $r$ ) ranges from +1.0 to -1.0 where a positive  $r$  value indicates a direct relationship and a negative  $r$  value represents an inverse relationship between two variables (Saunders *et al.*, 2009). A value of 0 means variables are perfectly independent of each other (Saunders *et al.*, 2009). The closer the absolute value is to 1, the greater the relationship, a correlation of zero means there is no linear relationship between the variables (Saunders *et al.*, 2009). An important condition for the use of Pearson correlation is that the sampling distribution of the population must be normally distributed (Saunders *et al.*, 2009).

The Central Limit Theorem indicates that for normality to be achieved, a sample ( $n$ ) must be equal to or greater than 30, which follows from the understanding that as the sample

size of a population (N) becomes larger, the sample mean approximates the population mean and the standard deviation becomes smaller, thus making the distribution normal. Since 30 is considered large and approximates a normally distributed population, it is appropriate to adopt the Pearson correlation to measure the correlation between the variables in this study as the sample size for this study was 74 (Fisher, 2000; Chang, Huang & Wu, 2006),

### **3.9.1.2 Spearman Correlation**

The Spearman correlation is a non-parametric test of the degree of association between two variables, it does not require any assumptions about the distribution of data to be met. However the assumption general condition for correlation, monotonic relationship between variables being tested, must be met, which is that as the value of one variable increases the value of the other variable either increases or decreases at the same rate of the other variable (Bryman & Bell, 2015)

### **3.9.2 Statistical Significance (T-test)**

The t test p-value establishes whether the correlation coefficient is significantly different from zero and, hence, evidence of an association between the two variables (Bryman & Bell, 2015). The correlation coefficient can be either negative or positive (Saunders *et al.*, 2009). For this study a two tailed measure of significance (p) was tested and presented, in conjunction with the Pearson correlation co-efficient (r) to ascertain the significance of the association between the variables (Creswell, 2014)

## **3.10 Data quality control**

This section discusses the two concepts of reliability and validity which act as criteria for assessing the quality of a research study (Bryman & Bell, 2015).

### **3.10.1 Reliability**

Reliability relates to the questions of whether the outcome of a study are repeatable (Bryman & Bell, 2015). Saunders, Lewis and Thornhill (2009) concur that reliability is the extent to which the data collection or analysis procedure can produce consistent findings. The term also relates to whether the measures that were devised for concepts are consistent (Bryman & Bell, 2015). Threats to reliability of results are subject error, subject or participant bias, observer error and observer bias (Saunders *et al.*, 2009).

To ensure reliability, the Cronbach's alpha (coefficient) was used to establish the reliability of all variables used in the questionnaire. Cronbach's alpha establishes the internal consistency or average correlation of variables in a survey instrument to determine its reliability (Gries & Naude, 2011). A Cronbach's alpha value from 0.7 to 0.8 is generally acceptable (Fowler, 2013; Gries & Naude, 2011). 0.4 is not acceptable, while a value higher than 0.9 reflects potential for possible similarities among the items (Fowler, 2013). Some researchers even argue that a Cronbach alpha value of 0.5 can suffice especially during the early stages of conducting research in a fairly new area (Bryman & Bell, 2015).

### **3.10.2 Validity**

Validity refers to the degree to which the research instruments measure its intended purpose in solving the research objectives (Cooper & Schindler, 2008). Validity relates to integrity of assertions generated from a particular research (Bryman & Bell, 2007). It is therefore concerned with whether the findings really are about what they appear to be (Saunders *et al.*, 2009). Threats to validity include history, maturation, mortality and testing, among others (Saunders *et al.*, 2009). Bryman and Bell (2007) distinguish between the various types of validity which include; content validity, measurement validity, internal validity, ecological validity and external validity. However, the researcher used content validity because it was more appropriate to address the research problem of this study. Content validity was established by utilising an instrument that was developed through, Ajzens Theory of Planned behaviour (TPB), the researcher opted for this approach as the instrument had been used and refined through previous studies and was able to accurately capture information relevant to the variables under the current study (Azhar *et al.*, 2010; Malebana *et al.*, 2015)

### **3.11 Ethical Considerations**

Ethical behaviour enables researchers to conduct research in a dignified manner with, honesty and regard for human rights (Andrew, 2011). Researcher bias is one of the ethical dilemmas that researchers encounter. To reduce the possibility of researcher bias, the researcher tried as much as possible to remain objective during the entire research process. In addition, issues of plagiarism should be treated with high priority in research (Andrew, 2011). The researcher considered all issues of ethical behaviour in conducting the study. The researcher clearly communicated all important details about the research

to participants, including the purpose of the study and highlighted the voluntary nature of all participation to the participants. It was mandatory to all participants to complete an informed consent, before involvement in the research study, as evidence that they were willing to take part. Informed consent is when an individual understands what the researcher wants him or her to do and consents to partaking in the research (Zikmund *et al.*, 2010). All research instruments used contained information that were not emotionally harmful to the respondents. An Ethical Clearance Certificate (HSS/1169/018M; Appendix A) was obtained from the UKZN ethics committee, prior to the commencement of the research project.

### **3.12 Summary**

In summary, this chapter has detailed the research methodology of the study, wherein, the various aspects of the research process such as research; design, approach, data collection instrument and data analysis were discussed. Furthermore, it was noted that, this study adopted a quantitative research approach, collected data was analysed through descriptive and inferential statistics. Finally, a declaration was given that an Ethical Clearance Certificate was obtained from the University of KwaZulu-Natal, prior to commencement of the research project. The following chapter will present and discuss the results.



## **CHAPTER FOUR:**

### **FINDINGS**

#### **4.1 Introduction**

The previous chapter presented the research methodology for the study. This chapter provides a presentation of the findings of the study. The results presented have been organised into different sections. Firstly, the response rate and demographic details about the participants are presented and discussed, next the reliability analysis is presented, thereafter, the interpretation of the quantitative results is presented in the sequence of objectives as outlined in Section 1.3 of the introduction chapter.

#### **4.2 Response Rate**

The initial sample for this study was made up of 175 people. However, 74 questionnaires were returned. Therefore, the response rate for this study was 42%. According to Baruch and Holton (2008), there is no generally agreed on norm for what constitutes an acceptable and reasonable response rate.

#### **4.3 Reliability analysis: Cronbach's Alpha**

Cronbach's Alpha was computed for variables addressing each objective of this study. The results are shown in Table 2.

**Table 2: Reliability analysis: Cronbach's Alpha**

Item	Sample Size(n)	Cronbach's alpha
Attitude towards entrepreneurship Education (A1-A5)	74	0.728
Subjective norms (B1–B5)	74	0.711
Behavioural control (C1–C3)	74	0.722
Entrepreneurship Intention (D1-D7)	74	0.725

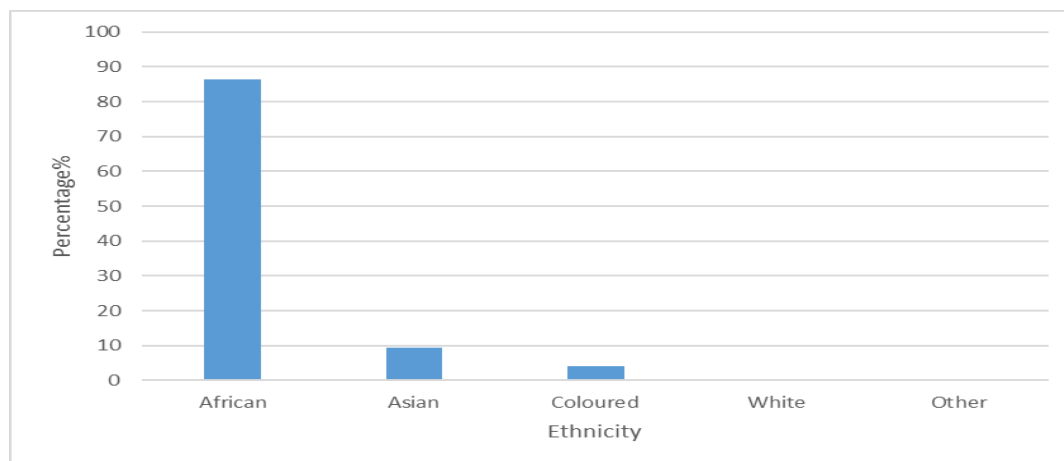
Table 2 shows, the Cronbach's alpha reliability coefficients are above 0.7, indicating that similar results would be obtained on a larger sample of participants.

#### **4.4 Demographic Profile of the Respondents**

Section A of the questionnaire was designed to obtain background details about the respondents and included questions relating to the respondent's race and age. The empirical findings are outlined in the section below.

##### **4.4.1 Ethnicity of the respondents**

The ethnicity representation is displayed in Figure 2 below



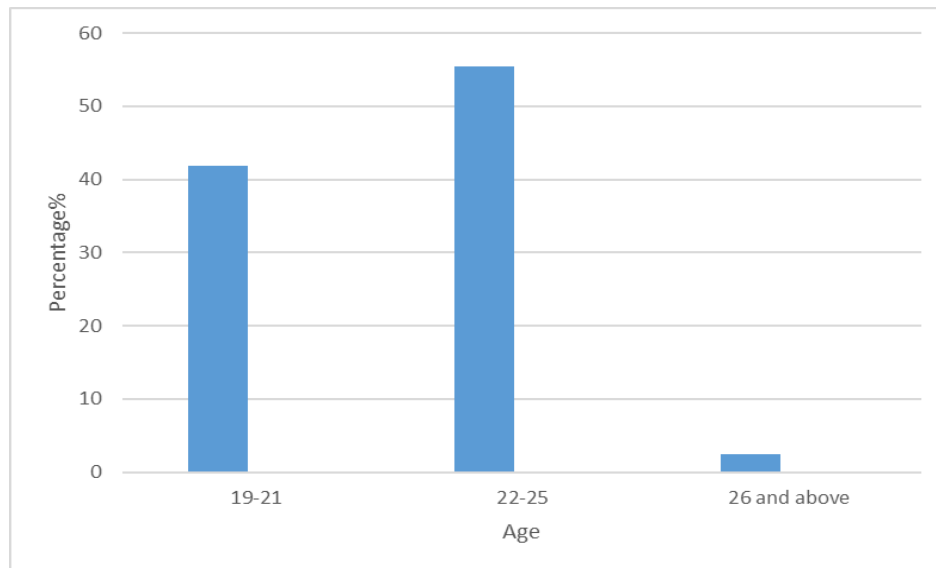
**Figure 2: Ethnicity Representation**

Based on Figure 2, above, the majority (86.5%) of the respondents were Africans. This is particularly significant, since African females have been quoted in previous research as being particularly less likely to pursue a career in entrepreneurship due to the patriarchal context that most African females find themselves, affecting their self-confidence, among which are the social views of females as being less valued than males.

This result indicates a potentially significant shift in the mind set of African females towards entrepreneurship, furthermore this demographic profile of respondents is a good representation of the demographics of UKZN as Africans form the majority of the student population within the institution (UKZN, 2018).

#### ***4.4.2 Age of the respondents***

The age representation of empirical results is shown in Figure 3 below



**Figure 3: Age of respondents**

Based on Figure 3, 55.5% of respondents (the majority) were between the ages of 22 and 25. This is followed by the second age group (19-21) which comprised 41.9% of respondents. The ages of respondents are typical of the age representation within the university at typical University age of students at UKZN (UKZN, 2018). These are the ages expected of students that have progressed beyond second year as per one of the parameters of the participants selection.

## **4.5 Presentation of Results According to the Objectives of the Study**

### ***4.5.1 Interpretation of results***

The results were provided and interpreted in alignment with the objectives of the study. Attitude towards entrepreneurship education, subjective norms and perceived behavioural control represented the independent variables of this research, while entrepreneurial intentions represented the dependent variable. The researcher wanted to establish how the independent variables of this study affected the entrepreneurial intentions of female students doing entrepreneurship at the University of KwaZulu-Natal. The researcher after analysing the responses obtained from respondents under the intentions scale, identified that the understanding that respondents attributed to all the constructs within the intentions scale were similar, with D7 being the most representative construct indicating their intention towards entrepreneurship, from the wording 'I have a firm intention to start a business someday', as such the researcher, correlated this construct with those within the independent variables as presented in this section. The Pearson's correlation was performed to test the significance of the relationship between the independent and dependent variables. A correlation of minus one (-1) indicates a perfect negative correlation, which means that as one of the variables goes up, the other one goes down. A positive correlation of one (+1) indicates a perfect positive correlation, which means that both variables move in the same direction. Therefore, hypotheses were developed and tested in relation to the research objectives of this study. The null hypothesis was assumed to be true until there was evidence to go against it. At 5% significance level (0.05) of the P-value, the null hypothesis was rejected, and the alternative hypothesis was accepted. Furthermore, the mean and standard deviation were also analysed.

*4.5.1.1 Research objective one: To establish a relationship between attitudes about entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students.*

With regards to research objective one, the researcher tested the variables that affect attitude toward entrepreneurship education in relation to the entrepreneurial intentions of UKZN female entrepreneurship students. The aim was to establish whether there was a relationship between attitude towards entrepreneurship education and entrepreneurial intentions of the respondents.

**Table 3: Attitude towards entrepreneurship education**

Attitude towards entrepreneurship education		Frequency Distribution						Descriptive statistics	
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	% Agree and strongly Agree	Mean	Std. Dev.
A1: The entrepreneurship course/s have prepared me to become an entrepreneur	Freq	1	6	24	32	11			
	%	1.4%	8.1%	32.4%	43.2%	14.9%	58.1%	3.62%	0.887
A2: The topics covered within the entrepreneurship course are relevant (Combines A2 and A3)	Freq	1	0	9	38	26			
	%	1.4%	0.0%	12.2%	51.4%	35.1%	86.5%	4.19	0.753
A3: I find the topics covered in the entrepreneurship module very interesting to me (Combines A3 and A4)	Freq	2	3	19	28	22			
	%	2.7%	4.1%	25.7%	37.8%	29.7%	67.1%	4.53%	0.71

Table 3 reveals the rate of responses obtained for each question from respondents, that together represent attitude towards entrepreneurship education. Below are the interpretations from Table 3 according to each question on the table. A hypothesis has been formulated and tested for each of these questions.

#### **Question A1: Entrepreneurship Course(s)**

Table 3 revealed that most respondents [58.1%] agreed (as indicated by the participants who agreed and strongly agreed) that entrepreneurship course/s have prepared them to become an entrepreneur. This is evident with the mean score of 3.62 which is closer to ‘strongly agree’. A total of 9.5% disagreed that entrepreneurship course/s have prepared them to become an entrepreneur, while 32.4% of the respondents remained neutral.

#### **Question A2: Topics covered within entrepreneurship courses**

Table 3 shows that most respondents [86.5%] agreed (as indicated by the participants who agreed and strongly agreed) that topics covered within the entrepreneurship course/s are relevant. On the other hand, 1.4% disagreed with this notion while 12.2% remained neutral.

### Question A3: Entrepreneurship education is interesting to me

Table 3 shows that majority of the respondents [67.1%] agreed (as indicated by the participants who agreed and strongly agreed) that entrepreneurship education was interesting to them, whereas 6.8% disagreed. 25.7% of the respondents remained neutral.

**Table 4: The Pearson correlation test: Entrepreneurship intentions and entrepreneurship course (s)**

		<b>I have a firm intention to start a business someday</b>	<b>The entrepreneurship course(s) have prepared me to become an entrepreneur</b>
I have a firm intention to start a business someday	Pearson Correlation	.883	.883
	Sig. (2-tailed)		<b>.02</b>
	N		74
The entrepreneurship course (s) have prepared me to become an entrepreneur	Pearson Correlation	.883	.883
	Sig.(2-tailed)	<b>.02</b>	
	N	74	

Correlation is significant at the 0.05 level (2-tailed).

### Question A1: Entrepreneurship Course

A Pearson correlation coefficient was conducted to test whether there was a relationship between entrepreneurship course(s) and entrepreneurial intentions of UKZN female entrepreneurship students. The following hypotheses were formulated and tested to establish whether a relationship between Entrepreneurship intentions and entrepreneurship education (or course) existed.

H01a: There is no relationship between entrepreneurship education and entrepreneurial intentions of UKZN female entrepreneurship students.

H1a: There is a relationship between entrepreneurship education and entrepreneurial intentions of UKZN female entrepreneurship students.

The results of this test, as shown in Table 4, reveal that there is a positive correlation between the two variables,  $r = 0.883$ ,  $n = 74$ ,  $p = 0.02$ . The null hypothesis was therefore rejected since the P value was less than 0.05. The 2-tailed significance level of 0.02, which is less than 0.05 is suitable. So, this validates the claim that entrepreneurship education has a statistically significant and positive influence on entrepreneurship intentions of UKZN female entrepreneurship students

**Table 5: The Pearson correlation test: Entrepreneurship intentions and topics covered in entrepreneurship education**

		<b>I have a firm intention to start a business someday</b>	<b>The topics covered within entrepreneurship courses are relevant</b>
I have a firm intention to start a business someday	Pearson Correlation	.5	.733
	Sig. (2-tailed)		.04
	N	74	74
The topics covered within entrepreneurship course(s) are relevant	Pearson Correlation	.733	.5
	Sig. (2-tailed)	.04	
	N	74	74

Correlation is significant at the 0.05 level (2-tailed).

#### **Question A2: Topics covered within entrepreneurship course (s)**

A Pearson correlation coefficient was conducted to test whether there is a relationship between topics covered within entrepreneurship course(s) and the entrepreneurial intentions of UKZN female entrepreneurship students. The following hypotheses were formulated and tested.

H01b: There is no relationship between topics covered by entrepreneurship course(s) and entrepreneurial intentions of UKZN female entrepreneurship students.

H1b: There is a relationship between topics covered by entrepreneurship course(s) and entrepreneurial intentions of UKZN female entrepreneurship students.

Table 5 shows the results of the Pearson correlation coefficient test calculated to establish whether a relationship between topics covered within entrepreneurship course(s) and entrepreneurial intentions of UKZN female entrepreneurship students exists. The show that there is a positive correlation between the two variables,  $r = 0.733$ ,  $n = 74$ ,  $p = 0.04$ . The study rejects the null hypothesis H01b since the P value was less than 0.05. In other words, these findings support H2a, which claims that there is a significant relationship between entrepreneurship education and interest in topics covered in entrepreneurship education

**Table 6: The Pearson correlation test: Entrepreneurship intentions and interest on topics covered in entrepreneurship education**

	I have a firm intention to start a business someday	I find the topics covered in the entrepreneurship module interesting to me
I have a firm intention to start a business someday		
Pearson Correlation	.733	.853
Sig. (2-tailed)		.05
N	74	74
I find the topics covered in the entrepreneurship Module interesting to me		
Pearson Correlation	.853	.733
Sig. (2-tailed)	.05	
N	74	74

Correlation is significant at the 0.05level (2-tailed).

### **Question A3: Entrepreneurship education is interesting to me**

A Pearson correlation coefficient was conducted to test whether there is a relationship between an interest in topics covered in entrepreneurship education and entrepreneurial intentions of



UKZN female entrepreneurship students. The following hypotheses were formulated and tested.

H01c: There is no relationship between the interest in topics covered within entrepreneurship course(s) and entrepreneurial intentions of UKZN female entrepreneurship students.

H1c: There is a relationship between the interest in topics covered within entrepreneurship course(s) and entrepreneurial intentions of UKZN female entrepreneurship students.

Table 6 above shows the results of a Pearson correlation coefficient that was conducted to establish whether there is a relationship between students finding entrepreneurship topics interesting and the entrepreneurial intentions of UKZN female entrepreneurship students. The results show that, in fact, there is a positive correlation between these two variables,  $r = 0.853$ ,  $n = 74$ ,  $p = 0.05$ . The null hypothesis was therefore rejected since the P value was equal to 0.05.

*4.5.1.2 Research objective two: To establish a relationship between subjective norms about entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students*

Research objective two aimed to establish whether there was a relationship between subjective norms about entrepreneurship education and entrepreneurial intentions of UKZN female students doing entrepreneurship. The subjective norms were measured by the influence of family, friends, role models and the support of entrepreneurial ideas by the University.

**Table 7: Subjective norms**

Subjective norms		Frequency Distribution						Descriptive statistics	
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	% Agree and Strongly Agree	Mean	Std. Dev
B1: My parents encouraged me to pursue a course in entrepreneurship.	Freq	4	15	23	21	10	<b>42.5%</b>	<b>4.13</b>	0.875
	%	5.5%	20.5%	31.5%	28.8%	13.7%			
B2: My friends think that entrepreneurship modules suit me	Freq	16	32	17	3	5	<b>10.9%</b>	5.21	0.837
	%	21.9%	43.8%	23.3%	4.1%	6.8%			
B3: Entrepreneurial ideas are encouraged and supported in my university	Freq	1	3	7	31	31	<b>85%</b>	<b>4.34</b>	0.891
	%	1.4%	4.1%	9.6%	42.5%	42.5%			
B4: The people that I respect and look up to think that learning about entrepreneurship is important ( Combined B4 and B5)	Freq	1	2	13	28	29	<b>77.5%</b>	<b>4.56</b>	0.78
	%	1.4%	2.7%	17.8%	37.8%	39.7%			

Table 7 reveals the rates of responses obtained for each question from respondents, that together represent the subjective norms about entrepreneurship education. Below are the interpretations from Table 7 according to each question on the table. A hypothesis (H2) has been formulated and tested for each of these questions.

#### **Question B1: Influence from family to pursue a course in entrepreneurship**

In Table 7, the respondents were asked to indicate whether they were encouraged by their parents to pursue a course in entrepreneurship. 42.5% agree that they were encouraged by their parents to pursue a module in entrepreneurship whereas, 31.5% remained neutral. In addition, 26% disagreed that they were encouraged by their family to pursue a module in entrepreneurship. Some students were enrolled for this module as it was compulsory for their

qualification but overall, the results show that family plays a crucial role in students when choosing their modules.

#### **Question B2: Influence from friends about an entrepreneurship course**

Table 7 shows the results obtained when the respondents to this study were asked to indicate whether they were encouraged by their friends to pursue a module in entrepreneurship. Most of the respondents [65.7% (i.e. 21.9% + 43.8%)] disagreed. 23.3% of the respondents were neutral. These findings revealed that majority of students were not influenced by their friends to pursue an entrepreneurship course

#### **Question B3: Encouragement of entrepreneurship ideas by the university**

According to Table 7, most of the respondents 85% agreed (as indicated by the participants who agreed and strongly agreed) that entrepreneurship ideas are encouraged and supported in their university, whereas 5.5% disagreed. A total of 9.6% of the respondents remained neutral. These findings imply that the respondents perceive that UKZN encourages and supports students to pursue entrepreneurial ideas.

#### **Question B4 (B4 and B5): Influence from role models to learn about entrepreneurship**

Table 7 indicates the response rate when respondents were asked to indicate whether they were encouraged by their role models to pursue entrepreneurship education or not. 77.5% agreed that they were encouraged by their role models to pursue entrepreneurship education, whereas 17.8% remained neutral. In addition, 4.1% disagreed that they were encouraged by their role models to pursue entrepreneurship education. These results show that the students were more influenced by their role models to pursue entrepreneurship education.

**Table 8: The Pearson correlation test: Influence of family members and entrepreneurial intentions**

	<b>I have a firm intention to start a business someday</b>	<b>My parents encouraged me to pursue a course in entrepreneurship</b>
I have a firm intention to start a business someday		
Pearson Correlation	.422	.3
Sig. (2-tailed)	.047	
N	74	74
My parents encouraged me to pursue a course in entrepreneurship		
Pearson Correlation	.3	.422
Sig. (2-tailed)		.047
N	74	74

Correlation is significant at the 0.05 level (2-tailed).

#### **Question B1: Influence from family to pursue a course in entrepreneurship**

A Pearson correlation coefficient was computed to test the relationship between the influence of family members on students to pursue a course in entrepreneurship and their entrepreneurial intentions. The following hypotheses were formulated and tested.

H02a: There is no relationship between the influence of family members on students to pursue a career in entrepreneurship and their entrepreneurial intentions.

H2a: There is a relationship between the influence of family members on students to pursue a career in entrepreneurship and their entrepreneurial intentions.

Table 8 above shows a Pearson correlation coefficient that was calculated to test the relationship between the influence of family members on students to pursue a course in entrepreneurship and the students' entrepreneurial intentions. The results show that there is a positive correlation between the two variables,  $r = 0.422$ ,  $n = 74$ ,  $p = 0.047$ . The null hypothesis was therefore rejected since the P value was less than 0.05.

**Table 9: The Pearson correlation test: Influence of friends and entrepreneurial intentions**

	<b>I have a firm intention to start a business someday</b>	<b>My friends think that entrepreneurship modules suit me</b>
I have a firm intention to start a business someday Pearson Correlation	.5	.762
Sig. (2-tailed)		.091
N	74	74
My friends think that entrepreneurship modules suit me Pearson Correlation	.762	.5
Sig. (2-tailed)	.091	
N	74	74

Correlation is significant at the 0.05 level (2-tailed).

### **Question B2: Influence from friends to pursue an entrepreneurship course**

A Pearson correlation coefficient was computed to test the relationship between the influence of friends on students when choosing their entrepreneurship modules and their entrepreneurial intentions. The following hypotheses were formulated and tested.

H02b: There is no relationship between the influence of friends on students when choosing their entrepreneurship modules and their entrepreneurial intentions. H2b: There is a relationship between the influence of friends on students when choosing their entrepreneurship modules and their entrepreneurial intentions.

Table 9 above shows a Pearson correlation coefficient that was conducted to establish whether the influence of friends on students encouraged them to choose entrepreneurship modules and its effects on their entrepreneurial intentions. The results show that there was a positive correlation between the two variables,  $r = 0.762$ ,  $n = 74$ ,  $p = 0.091$ . The study therefore failed to reject the null hypothesis as the significance value falls beyond the rejection region of 0.05, suggesting that there is no significant relationship between the influence of friends and the students' choice of entrepreneurship education.

**Table 10: The Pearson correlation test: support of entrepreneurship ideas and entrepreneurial intentions**

	<b>I have a firm intention to start a business someday</b>	<b>Entrepreneurial ideas are encouraged and supported in my university</b>
I have a firm intention to start a business someday Pearson Correlation	.849	.849
Sig. (2-tailed)	.02	.02
N	74	74
Entrepreneurial ideas are encouraged and supported in my university Pearson Correlation	.849	.849
Sig. (2-tailed)	.02	.02
N	74	74

Correlation is significant at the 0.05 level (2-tailed).

### **Question B3: Encouragement of Entrepreneurship ideas by the university**

A Pearson correlation coefficient was conducted to establish whether there is a relationship between the support of entrepreneurial ideas and the entrepreneurial intentions of UKZN female entrepreneurship students. The following hypotheses were formulated and tested.

H02c: There is no relationship between the support of entrepreneurship ideas at the university level and the entrepreneurial intentions of students

H2c: There is a relationship between the support of entrepreneurial ideas at the University level and the entrepreneurial intentions of students

Table 10 shows a Pearson correlation coefficient that was conducted to establish whether there was a relationship between the support of entrepreneurship ideas at the University level and the entrepreneurial intentions of students. The results show that there is a positive correlation between the two variables,  $r = 0.849$   $n = 74$ ,  $p = 0.02$ . The null hypothesis is therefore rejected since the P value was less than 0.05. These findings show that a university environment conducive to entrepreneurship increases the likelihood for students to start businesses.

**Table 11: The Pearson correlation test: influence of role models and entrepreneurial intentions**

		<b>I have a firm intention to start a business someday</b>	<b>The people that I respect and look up to think that learning about entrepreneurship is important</b>
I have a firm intention to start a business someday	Pearson Correlation	.3	.752
	Sig. (2-tailed)		.04
	N	74	74
The people that I respect and look up to think that learning about entrepreneurship is important	Pearson Correlation	.752	.3
	Sig. (2-tailed)	.04	
	N	74	74

Correlation is significant at the 0.05 level (2-tailed).

#### **Question B4: Influence from role models to pursue entrepreneurship education**

A Pearson correlation coefficient was computed to test the relationship between the influence of role models on students to pursue entrepreneurship education and its effects on their entrepreneurial intentions. The following hypotheses were formulated and tested.

H02d: There is no relationship between the influence of role models on students to choose entrepreneurship education and its effect on their entrepreneurial intentions.

H2d: There is a relationship between the influence of role models on students to choose entrepreneurship education and its effect on their entrepreneurial intentions.

Table 11 shows a Pearson correlation coefficient that was conducted to establish whether there was a relationship between the influence from role models and the entrepreneurship intentions of students. The results show that there is in fact a positive correlation between the two variables  $r = 0.752$   $n = 74$ ,  $p = 0.04$ . Based on these results the null hypothesis is therefore rejected, as the P value was less than 0.05. These findings show that role models had a positive and significant effect on students' entrepreneurial intentions and more importantly entrepreneurship role models had a positive influence on the entrepreneurship intention of UKZN female entrepreneurship students.

*4.5.1.3 Research objective three: To establish a relationship between perceived behavioural control over entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students*

Concerning objective three, the aim of the researcher was to test if there was any relationship between perceived behavioural control over entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students.



**Table 12: Behavioural control**

Behavioural control		Frequency Distribution						Descriptive statistics	
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	% Agree and Strongly Agree	Mean	Std. Dev
C1: The contents of the entrepreneurship module make sense to me	Freq	1	0	9	42	21	86.3%	4.22	0.883
	%	1.4%	0.0%	12.2%	57.5%	28.8%			
C2: I can easily relate text-book examples emanating from my entrepreneurship module with what is happening in the business world	Freq	1	3	10	40	19	80.8%	4.38	0.865
	%	1.4%	4.1%	13.7%	54.8%	26%			
C3: I tend to succeed more in my entrepreneurship assessment than other courses	Freq	3	3	32	23	12	47.9%	4.12	0.777
	%	4.1%	4.1%	43.2%	31.5%	16.4%			

Table 12 reveals the rate of responses obtained for each question from respondents, that together represents behavioural control about entrepreneurship education. Below are the interpretations from Table 12 according to each question on the table. hypothesis has been formulated and tested for each of these questions.

#### **Question C1: Understanding of content of entrepreneurship education**

Table 12 shows the response rate from respondents when they were asked whether the content of the entrepreneurship education made sense to them or not. A majority of 86.3% agreed that the content of entrepreneurship education made sense to them, whereas 1.4% disagreed. A total of 12.2% of the respondents remained neutral. These findings indicate that students understand the content of entrepreneurship modules.

### Question C2: Relevance of entrepreneurship education

Table 12 shows the response rate from respondents on whether they found the contents of the entrepreneurship modules relevant to the business world. 80.8% of the respondents agreed that the entrepreneurship module was relevant to the business world whereas 5.5% disagreed. 13.7% of the respondents remained neutral.

### Question C3: Understanding of entrepreneurship assessments

Table 12 reflects the response rates obtained from respondents when they were asked whether they succeeded more in entrepreneurship assessments than they did in other module assessments. 47.9% agreed that they succeeded more on their entrepreneurship assessments, whereas 43.2% remained neutral. 8.2% disagreed that they succeeded more on their entrepreneurship assessments than other assessments.

**Table 13: The Pearson correlation test: content of entrepreneurship education and entrepreneurial intentions**

		<b>I have a firm intention to start a business someday</b>	The content of the entrepreneurship module makes sense to me
I have a firm intention to start a business someday	Pearson Correlation	6	.842
	Sig. (2-tailed)		.03
	N	74	74
The content of the entrepreneurship module makes sense to me	Pearson Correlation	.842	6
	Sig. (2-tailed)	.03	
	N	74	74

Correlation is significant at the 0.05 level (2-tailed).

### **Question C1: Understanding of content of entrepreneurship education**

A Pearson correlation coefficient was computed to test whether there was a relationship between students' understanding of entrepreneurship content and their entrepreneurial intentions. The following hypotheses were formulated and tested.

H03a: There is no relationship between student's understanding of entrepreneurship content and their entrepreneurial intentions.

H3a: There is a relationship between student's understanding of entrepreneurship content and their entrepreneurial intentions

In Table 13, the results shown that there is a positive correlation between the two variables,  $r = 0.842$   $n = 74$ ,  $p = 0.03$ . The null hypothesis is therefore rejected since the P value is less than 0.05. which means there is a relationship between students understanding of entrepreneurship content and the students' entrepreneurial intentions. These findings show that when a student understands the content of the entrepreneurship module or course, they have a higher likelihood to start a business someday.

**Table 14: The Pearson correlation test: relevance of entrepreneurship education and entrepreneurial intentions**

		<b>I have a firm intention to start a business someday</b>	<b>I can easily relate text-book examples emanating from my entrepreneurship module with what is happening in the business world</b>
I have a firm intention to start a business someday	Pearson Correlation	6	.666
	Sig. (2-tailed)		.02
	N	74	74
I can easily relate text-book examples emanating from my entrepreneurship module with what is happening in the business world	Pearson Correlation	.666	6
	Sig. (2-tailed)	.02	
	N	74	74

Correlation is significant at the 0.05level (2-tailed).

### **Question C2: Relevance of entrepreneurship education**

A Pearson correlation coefficient was computed to test whether there was a relationship between the relevance of entrepreneurship education and entrepreneurial intentions of students.

The following hypotheses were formulated and tested.

H03b: There is no relationship between the relevance of entrepreneurship education and entrepreneurial intentions of students.

H3b: There is a relationship between the relevance of entrepreneurship education and entrepreneurial intentions of student.

In Table 14, the results revealed that there is a positive correlation between the two variables,  $r = 0.666$   $n = 74$ ,  $p = 0.02$ . The null hypothesis was therefore rejected since the P value was less

than 0.05. These findings show that the students' ability to link the content of their modules to the real business world is directly related to their entrepreneurial intentions. The more successfully students were able to link their learning from the entrepreneurship module to the real business world, the more likely they were to start a business someday.

**Table 15: The Pearson correlation test: entrepreneurship assessments and entrepreneurial intentions**

		<b>I have a firm intention to start a business someday</b>	<b>I tend to succeed more in my entrepreneurship assessment than other courses</b>
I have a firm intention to start a business someday	Pearson Correlation	6	.769
	Sig. (2-tailed)		.02
	N	74	74
I can easily relate text-book examples emanating from my entrepreneurship module with what is happening in the business world	Pearson Correlation	.769	6
	Sig. (2-tailed)	.02	
	N	74	74

Correlation is significant at the 0.05 level (2-tailed).

### **Question C3: Understanding of entrepreneurship assessments**

A Pearson correlation coefficient was computed to test whether there is a relationship between students' success on their entrepreneurship assessments and its effects on their entrepreneurial intentions. The following hypotheses were formulated and tested.

H03c: There is no relationship between students' success on their entrepreneurship assessments and its effects on their entrepreneurial intentions.

H3c: There is a relationship between students' success on their entrepreneurship assessments and its effects on their entrepreneurial intentions.

In Table 15, the results show that there is a positive correlation between the two variables,  $r = 0.769$   $n = 74$ ,  $p = 0.02$ . The null hypothesis is therefore rejected since the P value was less than 0.05. It was found that students' success on their entrepreneurship assessment is directly linked to their entrepreneurial intentions.

## **4.6 Conclusion**

This chapter provided the research findings in line with the objectives that were formulated for this study. It also revealed the outcomes of the hypothesis tests conducted for each variable and associated outcome, which revealed that a positive relationship exists between: (1) attitudes towards entrepreneurship education and entrepreneurship intention; (2) subjective norms about entrepreneurship education and entrepreneurship intention; and (3) behavioural control resulting from entrepreneurship education and entrepreneurship intentions. which has ultimately led to the overall finding that, when UKZN female entrepreneurship students were exposed to entrepreneurship education, the exposure had a positive impact on their attitude towards entrepreneurship, subjective norms about entrepreneurship as well as on their behavioural control over entrepreneurship. Their entrepreneurship intentions as measured through the antecedent of behaviour as outlined in the theory of planned behaviour therefore increased, thus increasing their intention to commence business someday. The next section will provide a more detailed discussion of the results of the study.

## **CHAPTER FIVE:**

### **DISCUSSION OF FINDINGS**

#### **5.1 Introduction**

The previous chapter provided a detailed presentation of findings based on the data collected from the female students who enrolled for ENTRE2EN and ENTR2IE in 2017. This chapter includes a summary of the findings from the literature review and the primary study. Chapter Five commences with a discussion of the research findings as well as theoretical implications of the study and conclusion.

#### **5.2 Overview of the Research**

The objectives of this study were triggered by the fact that females possess relatively lower levels of entrepreneurship intention as well as the fact that relatively fewer females embark on entrepreneurship compared to their male counterparts as indicated by previous literature (Herrington & Kew, 2016), and as a result of the various structural barriers experienced by females in their entrepreneurial journey (Derera, 2011). The aim of this study is to provide insight about the influence of entrepreneurship education on the entrepreneurial intentions of UKZN female entrepreneurship students. The establishment of mechanisms of encouraging entrepreneurship among females bodes well for the South African economy as well as the global economy as this will result in increased productivity of existing and new industries, as well as the introduction of the much-needed innovations in technology, thus increasing employment and the reduction of over-dependence in government social grant support and employment across the country (Solesvik, 2015; Martin *et al.*, 2013).

The research focused more on entrepreneurial intention and factors that have a direct relationship with entrepreneurship intention. When entrepreneurship education was applied to the intentions models as a moderating variable, it amounted to increased levels of entrepreneurship intentions. According to Solesvik (2015) and consistent with the findings of this study, students developed a greater amount of entrepreneurship intention as they are exposed to entrepreneurship education.

The next section is a discussion of research findings in the context of the literature from other relevant studies that were previously conducted.

### 5.3 Discussion of the Research Findings

In this study, entrepreneurship was established as the major phenomenon responsible for triggering self-employment (Barringer & Ireland, 2010; Grigorea *et al.*, 2014; Gries, 2011). This view leads one to the understanding that for entrepreneurship to be achieved, entrepreneurship education would need to be acquired.

Entrepreneurship education was noted as the acquiring of skills necessary for one to develop a norm in terms of business ventures and using the skills that have been offered. These skills can then be used to identify, create and pursue new business ventures, that in turn open doors to further employment opportunities and economic productivity (Alberti *et al.*, 2004; Isaacs *et al.*, 2007). After a survey of the various definitions of entrepreneurship education developed over the years, Chimucheka (2014) summarised the common themes and suggested that entrepreneurship education is the continued development of; entrepreneurial alertness, knowledge, ability as well as concepts.

The surveyed literature in this study suggests that females exhibit lower levels of entrepreneurship than males (Herrington & Kew, 2016), as a result of gendered barriers (Orser *et al.*, 2012; Kariv, 2013). Entrepreneurship education is currently being applied by various institutions of higher education and as part of the interventions of governments of the world including South Africa to boost the prevalence of entrepreneurial activity (SBP, 2013; Langa, 2016). Furthermore, Herrington and Kew (2016) have linked the limited entrepreneurship education of females to their lower levels of participation in entrepreneurship, which concurs with the notion that entrepreneurship education has the power to increase the entrepreneurial participation of females. In this view, the review of the influence of entrepreneurship education to an isolated group of females would provide an indication of the extent of entrepreneurship education as a solution for female entrepreneurship, which was undertaken by this study. The sub-sections below discusses the findings according to each research objective,

#### ***5.3.1 Objective 1: To establish a relationship between attitude about entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students.***

From the three hypotheses that were tested for Research Objective 1, all the null hypotheses were rejected, proving that there was a positive relationship between students' attitudes towards entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students, indicating that an exposure to entrepreneurship education will



improve the students' attitude that will result in an increase in students' entrepreneurship intention. These findings concur with Dickson et al. (2008) who conducted a quantitative study in the USA investigating relationships between general education, specific forms of entrepreneurial education as well as a range of entrepreneurial activities. The findings concluded that a positive relationship existed between entrepreneurship education and both the decision to become an entrepreneur as well as subsequent entrepreneurial success.

The results are also consistent with a study by Stokes et al. (2010) which found that participation in enterprise programs can positively influence people's enterprise potential and attitudes towards entrepreneurship. In addition, the theoretical framework for this study which is the theory of planned behaviour (TPB), is consistent with the findings of Objective 1. The application of TPB in the findings showed that female students engage in entrepreneurship when they are deliberately exposed to entrepreneurial education. Ajzen (1991) argued within the confines of the theory of planned behaviour that a person's attitude towards behaviour is dependent on exposure to some extent and that in effect becomes a significant factor in determining their intentions.

In the case of Objective 1, the exposure referred to in Ajzen (1991), in this case is exposure to entrepreneurship education and the behaviour that is sought is the commencement of the business someday, which in this case is represented in terms of the students entrepreneurship intentions. Firstly, TPB has been proposed as an antecedent of entrepreneurial behaviour (Ferreira et al., 2012). Secondly, entrepreneurship education (EE) has been proven as a strong antecedent of entrepreneurship intention (EI). In addition, the human capital theory holds that human capital represents the skills and knowledge that individuals acquire through investments in education, on-the-job training, as well as other types of experiential learning (Bae et al., 2014).

### ***5.3.2 Objective 2: To establish a relationship between subjective norms about entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students***

The overall findings of Research Objective 2 indicate a strong relationship between subjective norms about entrepreneurship intentions and the entrepreneurship intentions of females. Three of the four hypotheses that were tested for this variable were rejected and only one was not rejected. The subjective norms of the TPB describe the perceived social pressure from family, close friends and role models, such as teachers, successful female entrepreneurs and business

consultants, to perform the action (Solesvik *et al.*, 2012) which in this case is to become an entrepreneur.

The results of this study were proved to be consistent with Ajzen's (1991) theory, which states that subjective norms are critical in predicting behaviour. Literature from authors such as Souitaris *et al.* (2007) as well as Malebana and Swanepoel (2014) have also found that subjective norms are a predictor of an individual's entrepreneurial intention. Furthermore, role models, a conducive entrepreneurial environment and the influence of families have a significant influence on the entrepreneurship intentions.

### ***5.3.3 Objective 3: To establish a relationship between behavioural control over entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students***

Of the three hypotheses that were tested, two were rejected, confirming a relationship between perceived behavioural control over entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students. This finding is consistent with the theory of planned behaviour as put forward by Ajzen (2000) which suggests that as an individual's behavioural control increases so too does their intention towards the performance of the action which in this study relates to entrepreneurship. Perceived behavioural control (PBC) reflects an individual's control belief about entrepreneurship (Solesvik *et al.*, 2012).

The results of this study are also consistent with Malebana and Swanepoel (2015) who also confirmed that an entrepreneurship program significantly increased the students' perceived behavioural control, thus leading to higher levels of entrepreneurship intention. These results confirm a strong and positive relationship between perceived behavioural control over entrepreneurship education and the entrepreneurship intentions of UKZN female entrepreneurship students. The findings from the literature on the role models and family backgrounds of entrepreneurs also argued that there was a strong link between the presence of role models and the entrepreneurship development (Ascher, 2012).

## **5.4 Theoretical Implications**

The current study's main function was to establish an investigation into the influence of entrepreneurship education on the entrepreneurship intentions of UKZN female entrepreneurship students. For this study to be efficient and effective, a thorough analysis

needed to be done on all the aspects surrounding these issues. It can be noted that all the variables including attitude, subjective norms and perceived behavioural control, all have a direct relationship with entrepreneurial intentions. Therefore, the results of this study will assist politicians, researchers, academics and course co-ordinators in understanding the requirements for stimulating entrepreneurship among female students. Unlike other studies, this study focused directly on female students that had attended entrepreneurship courses, whether voluntarily or as part of their overall degree requirement.

This study was conducted with 175 female entrepreneurship students, of which 74 participated, which is a total response rate of 42%. For most of the student's, entrepreneurship education was a compulsory module required as part of the overall qualification they pursued; for others, entrepreneurship was selected in order to obtain required credits to complete their second year. Therefore, there was a host of reasons why students pursued entrepreneurship education, and, for this study, what was important was to understand the overall influence of entrepreneurship education on the students' entrepreneurship intention. Entrepreneurship intention in this regard is the prism through which probable action is viewed, as the theory of planned behaviour suggests that intention is the best predictor of behaviour (Ajzen, 2001).

The majority of literature surveyed as part of this study suggests that the significance of female entrepreneurship lies well beyond the empowerment debates, but rather services the economic as well as social demands of the global world, as females in South Africa according to Stats SA (2011), represent a higher percentage of the population than males. They therefore represent an untapped potential that could radically improve the economic output as well as address the major issue experienced in the country of unprecedented unemployment rates of people of employment age (Herrington & Kew, 2016).

Furthermore, since females represent the majority percentage of the South African population, they suffer more from unemployment which entrepreneurship can address, especially in the current dispensation of global economic uncertainty, where existing companies look at retrenching and certain government departments and agencies are forced to reduce their staff complement to remain sustainable (Mvula & Tshikovhi, 2014). This study has established that attitude formed through entrepreneurship education, subjective norms formed through entrepreneurship education and finally behavioural control developed through entrepreneurship education, all have a positive relationship with entrepreneurship intention.

## **5.5 Conclusion**

The findings in this study, indicated that there is a positive relationship between students' attitude towards entrepreneurship education and their entrepreneurial intentions. It was acknowledged that the content and topics covered within entrepreneurship modules are a strong contributing factor affecting students' entrepreneurial intentions. The outcome for the relationship between subjective norms about entrepreneurship education and the entrepreneurship intentions of students, was that subjective norms are a strong indicator of entrepreneurship intentions among entrepreneurship female students at UKZN. Lastly, the study discovered that behavioural control plays an important role in determining the entrepreneurial intentions of students. These results support the body of literature that argues that entrepreneurship education has a positive influence on the entrepreneurship intentions of students that have enlisted and have been exposed to it. Furthermore, this shows that, despite the barriers to female entrepreneurship that have been revealed through the body of literature, entrepreneurship education is capable of overcoming those barriers in female students and thus encourage them towards an entrepreneurial path.

## **CHAPTER SIX:**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1 Introduction**

This chapter presents the conclusion for each research objective, recommendations based on the research findings of the study and lastly the limitations and areas for future research.

#### **6.2 Conclusions**

This section discusses all the conclusions from the key findings of this study. The conclusions are arranged according to the order of the study research objectives.

##### ***6.2.1 Research objective one: To establish a relationship between attitude about entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students.***

This study concludes that there is a positive relationship between students' attitude towards entrepreneurship education and their entrepreneurial intentions. It concludes that the content and topics covered within entrepreneurship modules are a strong contributing factor affecting students' entrepreneurial intentions. Therefore, there is a positive relationship between the attitude of UKZN female entrepreneurship students and entrepreneurship intention, indicating that when female entrepreneurship students were exposed to the entrepreneurship modules at UKZN, the content covered in the modules as well as the topics that were delivered to them, resulted in these students intending to start a business someday.

##### ***6.2.2 Research objective two: To establish a relationship between subjective norms about entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students***

This study concludes that there is a positive relationship between subjective norms about entrepreneurship education and entrepreneurial intentions of ukzn female entrepreneurship students. According to literature on entrepreneurship intentions particularly dealing with subjective norms under the theory of planned behaviour, students' entrepreneurial intentions are developed from the influence of role models, an environment conducive to entrepreneurship as well as their parents, the findings of this study under objective two, were therefore consistent with such literature. Furthermore, the influence of role models was noted as being the most significant of all the of variables under subjective norms. Role models affect

an individual vicariously, through observational learning as the individual adopts favourable behaviours that have been exhibited by the role model. The study concluded that individuals would likely express a preference for a career or action if they had observed role models who have positive experiences with that occupation.

### ***6.2.3 Research objective three: To establish a relationship between perceived behavioural control over entrepreneurship education and the entrepreneurial intentions of UKZN female entrepreneurship students***

Based on research objective three, the study concludes that behavioural control plays a crucial role in determining entrepreneurial intentions of students. This study therefore concludes that participation in entrepreneurship education substantially increases a female students' perceived feasibility of starting a business someday. This study concludes that perceived behavioural control, along with behavioural intention, might be a good predictor of the achievements of an individual in entrepreneurship.

## **6.3 Recommendations**

The researcher proposes the following recommendations:

- The Pearson correlation analysis showed that as the students become more exposed to entrepreneurial modules, their intentions towards owning a business someday increased. The findings from the literature however highlighted that there were challenges that were peculiar to females in pursuing entrepreneurship after university. This study therefore recommends that the university curriculum should be modelled specifically to female students and cushion them into entrepreneurial careers. The curriculum must define challenges that are unique to female entrepreneurs and present female students with the means to ensure that they are equipped to venture into entrepreneurship and are able to successfully transfer the knowledge and skills gained in entrepreneurship education, to a practical and real entrepreneurial venture.
- The results regarding the influence of subjective norms revealed that students' entrepreneurial intentions are more influenced by their role models as compared to their families and friends. The literature shows that positive role models influence actions and motivate an individual to strive towards uncovering their truest potentials and overcome whatever weakness that may have hindered them. Therefore, this study recommends that

the university incorporates into the academic plan for the entrepreneurship modules inviting successful alumni female entrepreneurs to share their entrepreneurial journeys with students, particularly for the benefit of female students, to encourage students to identify them as role models of entrepreneurship. Furthermore, these programs may be expanded to incorporate greater levels of ongoing interactions between the female entrepreneurs and students. Universities should also employ comprehensive workshops that are hosted by female business leaders as part of the year-on-year training.

- The results of the study also revealed that behavioural control appears to be an important element crucial in increasing entrepreneurial intentions of students. Perceived behavioural control is an individual's belief and confidence in his/her capability to successfully perform as an entrepreneur and realising control and success in entrepreneurial activity (Ajzen, 2002). This study discovered that as students engaged with the perceived usefulness of entrepreneurial content, their entrepreneurial self-efficacy increased. Based on these findings, this study recommends that the entrepreneurship curriculum should engage practical pedagogies such as the world of work workshops that focus on the value of entrepreneurship training as a success factor for entrepreneurship. Curricula should engage female students with regards to the usefulness of entrepreneurial education in the business environment.

#### **6.4 Limitations of the Study**

The results of this study offer insights but are not generalisable since they only focus on one cohort of female students on one UKZN campus. This is a limitation as the results may not necessarily represent the views of other UKZN female entrepreneurship students on other campuses. The researcher has however provided extent literature from secondary sources to provide enough understanding of the phenomena under review, which has further been interrogated in relation to the outcomes of the research findings. The findings of this study lay the foundation for future research on the study area, and it fills a research gap on the influence of entrepreneurship education on the entrepreneurial intentions of UKZN female entrepreneurship students.

## **6.5 Areas for Future Research**

This study took a quantitative research approach. Future studies could adopt a qualitative approach as this would provide researchers with an in-depth understanding of the reasons why female students view entrepreneurship in the way they currently do and thus facilitate the design of more impactful entrepreneurship educational interventions. Similar studies could also be conducted in other South African institutions of higher learning. Alternatively, a comparative study could also be conducted whereby entrepreneurial intentions of female students are compared with entrepreneurial intentions of male students after being exposed to entrepreneurship education. Lastly this study was conducted within one of the campuses at UKZN, this revealed that the ethnicity of majority of the respondents was African, the researcher therefore recommends for future research a more in-depth investigation involving all UKZN campuses to ascertain whether the ethnicity of female students influences their entrepreneurship intention post entrepreneurship education within UKZN .



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# APPENDICES

## Appendix A: Ethical Approval Letter



29 August 2018

**Mr Mzwandile Boss Raymond Zulu (204501217)**  
School of Management, IT & Governance  
Pietermaritzburg Campus

Dear Mr Zulu,

**Protocol reference number: HSS/1169/018M**

**Project Title:** The influence of entrepreneurship education on the entrepreneurial intentions of UKZN female entrepreneurship students

### **Approval Notification – Expedited Application**

In response to your application received 16 August 2018, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL**.

**Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.**

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

**The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.**

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

Yours faithfully

Dr Shamila Naidoo (Deputy Chair)

/ms






Cc Supervisor: Mr Nigel Chiweshe  
Cc Academic Leader Research: Professor Isabel Martins  
Cc School Administrator: Ms Debbie Cunynghame

**Humanities & Social Sciences Research Ethics Committee**  
**Professor Shenuka Singh (Chair)**

**Westville Campus, Govan Mbeki Building**  
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**Website:** [www.ukzn.ac.za](http://www.ukzn.ac.za)

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## Appendix B: Consent Form

**UNIVERSITY OF KWAZULU-NATAL**  
**School of Management, IT and Governance**

Dear Respondent,

**Research Project**

**Researcher:** Mzwandile Zulu, Telephone number, 0837112567, Email: [204501217@stu.ukzn.ac.za](mailto:204501217@stu.ukzn.ac.za)

**Supervisor:** Nigel Chiweshe, Telephone number: 033 260 5111, Email: [chiweshen@ukzn.ac.za](mailto:chiweshen@ukzn.ac.za)

**Research Office:** Humanities & Social Sciences Research Ethics Administration, Govan Mbeki Building, Westville Campus, Tel: + 27 (0)31 260 8350, Email: [hssreclms@ukzn.ac.za](mailto:hssreclms@ukzn.ac.za)

I, Mzwandile Zulu am an MCom student in the **School of Management IT and Governance**, at the University of KwaZulu-Natal. You are invited to participate in a research project entitled: *The Influence of entrepreneurship education on the entrepreneurial intentions of UKZN female entrepreneurship students*

The aim of this study is to: **Investigate the influence of entrepreneurship education on the entrepreneurial intentions of UKZN female students**. Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. There will be no monetary gain from participating in this research project. Confidentiality and anonymity of records will be maintained by the researcher and **School of Management, IT and Governance**, UKZN. All collected data will be used solely for research purposes and will be destroyed after 5 years. This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (HSS/1169/018M). The questionnaire should take about 5 minutes/s to complete. Thank you for your time.

Sincerely

Researchers Signature \_\_\_\_\_  
Mzwandile Zulu

Date : \_\_\_\_\_

*This page is to be retained by participant*

**UNIVERSITY OF KWAZULU-NATAL**  
**School of Management, IT and Governance**

**Research Project**

**Researcher:** Mzwandile Zulu, Telephone number, 0837112567, Email: [204501217@stu.ukzn.ac.za](mailto:204501217@stu.ukzn.ac.za)

**Supervisor:** Nigel Chiweshe, Telephone number: 033 260 5111, Email: [chiweshen@ukzn.ac.za](mailto:chiweshen@ukzn.ac.za)

**Research Office:** Humanities & Social Sciences Research Ethics Administration, Govan Mbeki Building, Westville Campus, Tel: + 27 (0)31 260 8350, Email: [hssreclms@ukzn.ac.za](mailto:hssreclms@ukzn.ac.za)

**CONSENT**

I \_\_\_\_\_ (full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project. I understand that I am at liberty to withdraw from the project at any time, should I so desire.

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

*This page is to be retained by researcher*



## Appendix C: Research Questionnaire

### DEMOGRAPHIC INFORMATION

#### SECTION A

Please mark each question with a cross (X) in the appropriate box

F2 Please indicate your race

African/ Black	Asian/ Indian	Coloured	White	Other
-------------------	------------------	----------	-------	-------

F3 Please select the applicable age range

a) 16-18	b) 19-21	c) 22-25	d) 26+
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### QUESTIONNAIRE

#### SECTION B

No.	<b><u>Attitude towards Entrepreneurship Education (IDV1)</u></b>					
No A	Please indicate the extent to which you agree or disagree with each of the following statements using a cross (X) in the appropriate block where 1= Strongly disagree and 5= Strongly agree	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
A1	The entrepreneurship course/s have prepared me to become an entrepreneur	1	2	3	4	5
A2	The topics covered within the entrepreneurship course are relevant	1	2	3	4	5
A3	Entrepreneurship education is relevant to me	1	2	3	4	5
A4	I will recommend entrepreneurship education to my peers	1	2	3	4	5
A5	I find the topics covered in the entrepreneurship module very interesting to me	1	2	3	4	5

THANK YOU FOR YOUR PARTICIPATION!

No. B	<b><u>Subjective norms about Entrepreneurship Education (IDV2)</u></b>  Please indicate the extent to which you agree or disagree with each of the following statements using a cross (X) in the appropriate block where 1= Strongly disagree and 5= Strongly agree	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
B1	My parents encouraged me to pursue a course in entrepreneurship	1	2	3	4	5
B2	My friends think that entrepreneurship modules suit me	1	2	3	4	5
B3	Entrepreneurial ideas are encouraged and supported in my university	1	2	3	4	5
B4	People that are important to me think that a course in starting up and managing a business is good for me	1	2	3	4	5
B5	The people that I respect and look up to think that learning about entrepreneurship is important	1	2	3	4	5
No. C	<b><u>Perceived Behavioural Control over entrepreneurship education</u></b>  Please indicate the extent to which you agree or disagree with each of the following statements using a cross (X) in the appropriate block where 1= Strongly disagree and 5= Strongly agree	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
C1	the contents of the entrepreneurship module make sense to me	1	2	3	4	5
C2	I can easily relate text book examples emanating from my entrepreneurship module with what is happening in the business world	1	2	3	4	5
C3	I tend to succeed more in my entrepreneurship assessments than other courses	1	2	3	4	5

THANK YOU FOR YOUR PARTICIPATION!

No.D	<b><u>Intentions</u></b>	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
D1	I intend on starting a business	1	2	3	4	5
D2	I am ready to do anything to become an entrepreneur	1	2	3	4	5
D3	My professional goal is to become an entrepreneur	1	2	3	4	5
D4	I will make every effort to start and run my own business	1	2	3	4	5
D5	I am determined to create a business in the future	1	2	3	4	5
D6	I have thought very seriously about starting a business	1	2	3	4	5
D7	I have a firm intention to start a business some day	1	2	3	4	5

THANK YOU FOR YOUR PARTICIPATION!

## Appendix D: Gate Keepers Approval Letter



26 July 2018

Mr Mzwandile Zulu (SN 204501217)  
School of Management, IT and Governance  
College of Law and Management Studies  
UKZN  
Westville Campus  
Email: [204501217@stu.ukzn.ac.za](mailto:204501217@stu.ukzn.ac.za)

Dear Mr Zulu

### RE: PERMISSION TO CONDUCT RESEARCH

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

*"The influence of entrepreneurship education on the entrepreneurial intentions of UKZN female entrepreneurship students."*

It is noted that you will be constituting your sample by handing out questionnaires to female students that completed the module Introduction to Entrepreneurship (ENTR21E or ENTR2EN) in 2017 on the Pietermaritzburg Campus.

Please ensure that the following appears on your notice/questionnaire:

- Ethical clearance number;
- Research title and details of the research, the researcher and the supervisor;
- Consent form is attached to the notice/questionnaire and to be signed by user before he/she fills in questionnaire;
- gatekeepers approval by the Registrar.

You are not authorized to contact staff and students using 'Microsoft Outlook' address book. Identity numbers and email addresses of individuals are not a matter of public record and are protected according to Section 14 of the South African Constitution, as well as the Protection of Public Information Act. For the release of such information over to yourself for research purposes, the University of KwaZulu-Natal will need express consent from the relevant data subjects. Data collected must be treated with due confidentiality and anonymity.

Yours sincerely

MR S S MOKOENA  
REGISTRAR

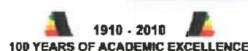
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#### Office of the Registrar

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## Appendix E: Editing Confirmation



### Editing Confirmation

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Registration number: 131 804 NPO

28/06/2019

Author: Mzwandile Boss Raymond Zulu

Document title: The influence of entrepreneurship education on the entrepreneurial intentions of UKZN female entrepreneurial students

This serves to confirm that the above document was edited substantively by members of the KZN Language Institute's professional English language editing team. The document was returned to the author with numerous tracked changes and comments intended to correct errors, and to clarify meaning. The author was advised that a significant amount of time and effort would be required to improve the overall quality of the work prior to submission for examination. It was the author's responsibility to accept or reject changes and to attend to issues raised in the comments. The reference list was not edited. Assistance was provided with generating the automatic Table of Contents, List of Tables and List of Figures.

Please note that the final, corrected version of the document was not proofread by an editor from the KZN Language Institute.

A handwritten signature in black ink, appearing to read 'G. Coertze'.

Ms G. Coertze *MSocSc (Culture, Communication and Media Studies)*  
Communications Manager

A handwritten signature in black ink, appearing to read 'J. Kerchhoff'.

Ms J. Kerchhoff *BEd (Hons), MA (Applied Language Studies), CELTA*  
Executive Director

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