ENTREPRENEURSHIP EDUCATION, ENTREPRENEURIAL ATTITUDE, SELF-EFFICACY, AND ENTREPRENEURIAL INTENTIONS AMONG UNDERGRADUATE FINALISTS IN PUBLIC UNIVERSITIES IN CENTRAL UGANDA

BY

MOSES KISAME KISUBI

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DECLARATION

Declaration by Candidate

This thesis is my original work and has not been presented for examination in any university for the award of a degree or certificate. No part of this work may be reproduced without prior permission of the author and/or Moi University.

Sign: _____ Date_____

Moses Kisame Kisubi
SBE/Ph.D./BM/09/18

Declaration by Supervisors

This thesis has been submitted for examination with our approval as Moi University Supervisors.

Sign: _____ Date_____

Prof. Michael Korir

Department of Management Science and Entrepreneurship

School of Business and Economics

Moi University

Eldoret

Kenya

Sign: _____ Date_____

Dr. Ronald Bonuke

Department of Marketing and Logistics

School of Business and Economics

Moi University

Eldoret

Kenya

DEDICATION

This thesis is in honor of my late father Joseph Waiswa Kisambira and my loving mother Takuwa Lovisa who supported, directed, motivated, and inspired me right from childhood to whom I have become today, as well as my wife Alikoba Victoria for the endurance and support during this journey.

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ABSTRACT

There is a need for developing countries to further enlighten entrepreneurship as a professional path for students and an avenue to reduce graduate unemployment. The use of Entrepreneurship Education to stimulate Entrepreneurial Intentions has been widely studied but its impact has yielded contrasting results in different contexts. Little is known about low-income economies like Uganda as most studies are from middle-income and the developed world. Besides, there is scanty literature on the interactive effects in this area since past research has focused on the direct effects. The study, therefore, filled these research gaps by focusing on the conditional indirect impact of Entrepreneurial Self-efficacy (ESE) on the link between Entrepreneurship Education (EE) and Entrepreneurial Intentions (EI) via Entrepreneurial Attitude (EA). The study was guided by eight objectives; To determine the impact of; EE, EA, and ESE on EIs, Entrepreneurship Education on Entrepreneurial Attitude; the mediating effect of Entrepreneurial Attitude on the link between Entrepreneurship Education and Entrepreneurial Intentions, the conditional effect of Entrepreneurial Self-efficacy on the associations between Entrepreneurial Attitude and Entrepreneurial Intentions, Entrepreneurship Education and Entrepreneurial Intentions, lastly, the moderated mediation impact of Entrepreneurial Self-efficacy on the link between Entrepreneurship Education and Entrepreneurial Intentions via Entrepreneurial Attitude. The study was grounded on the Theory of Planned Behavior, Social Cognitive Theory, and Entrepreneurial Event Model. The positivist research paradigm in line with the explanatory design was employed to obtain and analyze data. From a population of 6,408 undergraduates, a sample of 458 was determined. Data was collected using multistage sampling coupled with both random and systematic sampling using a self-administered questionnaire. Hierarchical and multiple regression models using PROCESS macro were used to test for the hypotheses. Findings indicate that: Entrepreneurship Education (β=.489, P=.000, R^2=.274, $R^2\Delta$=.212), Entrepreneurial Attitude (β=.544, P=.000, R^2=.412, $R^2\Delta$=.138), and Entrepreneurial Self-efficacy (β=.302, P=.000, R^2=.454, $R^2\Delta$=.042) had a significant positive impact on Entrepreneurial Intentions. Also, Entrepreneurship Education significantly affects Entrepreneurial Attitude (β=.405, P=.000); Entrepreneurial Attitude partially mediates the link between Entrepreneurship Education and Entrepreneurial Intentions (β=.220, CI=.152, .294). Lastly, the study revealed that ESE has an antagonistic conditional effect on the association between; EA and EIs (β=-.201, P=.006, CI=.-.342, -.059) and mediating effect of EE on EIs through EA (β= -.081, SE=.038, CI=.-.158, -.008). To this end, the study provides insights by revealing that Entrepreneurial Attitude is a better predictor of EIs. In addition, there is evidence of a moderated mediation effect of ESE on the relationship between EE and EIs via EA. Implying that at low levels of ESE, the indirect effect of EE on EIs via EA is high and significant. Therefore, educators and policymakers need to establish students' entrepreneurial competence gaps, such that the entrepreneurial course is customized to the competence needs of the students other than a generalized and standardized entrepreneurial course. Also, entrepreneurship teaching should be introduced right from primary schools such that this career option is oriented to students before they develop their career intentions. Finally, a special financing program should be designed for graduates to enable them easily access start-up capital. However, a longitudinal study is needed to examine how intentions are developed, other than undergraduate, other student population should be focused on and a comparative study for business and non-business students are recommended.

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ACRONYMS

EA: Entrepreneurial Attitude

EE: Entrepreneurship Education

EEM: Entrepreneurial Event Model

EI: Entrepreneurial Intentions

ESE: Entrepreneurial Self-efficacy

GEM: Global Entrepreneurship Monitor

ILO: International Labour Organization

MoFPED: Ministry of Finance, Planning, and Economic Development

NCHE: National Council for Higher Education

SCT: Social Cognitive Theory

TPB: Theory of Planned Behavior

OPERATIONAL DEFINITION OF TERMS

Behavioral intention: This is an indicator of the readiness of a person to carry out particular actions, and it's the direct cause of their conduct (Saraih, Aris, Mutalib, Ahmad, & Amlus, 2018).

Entrepreneurial attitude: This is the predisposition to respond to entrepreneurial initiatives in a generally favorable or unfavorable manner (Robinson, Stimpson, Huefner, & Hunt, 1991). In other words, it illustrates the individual's evaluation of the role of entrepreneurship (Wu & Wu, 2008).

Entrepreneurial Intentions: It is a mental state that directs and steers people's behavior toward the development and implementation of new business concepts (Hattab, 2014). In other words, people who choose entrepreneurship over paid employment are motivated by their mental state (Farashah, 2013).

Entrepreneurial self-efficacy means the degree to which an individual believes he or she is capable of performing the roles and activities of an entrepreneur (BarNir, Watson, & Hutchins, 2011).

Entrepreneurship Education: This is the structured, formal transfer of entrepreneurial skills, concepts, and mental awareness that people use when starting or developing their business ventures (Bahadur & Shah, 2015).

Entrepreneurship knowledge acquisition: It is the process of extracting, structuring, and organizing knowledge about entrepreneurship from various sources, usually from human experts, so that it can be used in business actions.

Opportunity recognition: This is the mental mechanism (or processes) by which individuals believe that an opportunity has been found (Baron, 2006).

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the background of the study, the statement of the problem, the research objectives and hypotheses, the significance of the study, and the scope of the study.

1.1 Background of the Study

Entrepreneurial Intentions have drawn researchers' attention worldwide. Entrepreneurial intentions play a critical role in the growth of entrepreneurship (Bosompem, Dadzie, & Tandoh, 2017). Evidence from existing literature reveals that Entrepreneurial intentions are crucial in deciding whether or not to start a new business (Hassan, Saleem, Anwar, & Hussain, 2020), and the decision to start a business has been perceived as a desirable form of economic growth and development (Abdullahi, Zainol, Daud, & Yazid, 2017). Thus, the stimulation of students' Entrepreneurial Intentions is an ideal solution to the graduate unemployment crisis (Barba-Sánchez & Atienza-Sahuquillo, 2018).

Entrepreneurial Intention is a mental condition that directs and steers people's behavior toward the creation and implementation of new venture concepts (Hattab, 2014), and actualizing Entrepreneurial ambitions accrues direct benefits to an individual. For example, one creates his or her employment, manages his or her own time, is a self-boss, and has the possibility of earning more money (Dheer & Lenartowicz, 2016). Current students are either prospective entrepreneurs or paid employees; thus, stimulation of students' Entrepreneurial intentions creates future entrepreneurs, and failure to do so creates employees. As such, examining undergraduate entrepreneurial

intentions is critical to both the creators of educational and economic policies (Boukamcha, 2015). Furthermore, Entrepreneurial Intentions create attractive and alternative career opportunities for unemployed young people, especially if they involve in exploiting a business opportunity (Mijoč, Stanić, & Horvat, 2016). In low-employment economies like Uganda, it is a feasible way for graduates to generate income where there are no formal job opportunities (ILO, 2018).

According to the GEM report (2017), 22 percent of the individuals surveyed in 64 countries expressed their intention to start a business. Europe and North America reported the lowest levels of entrepreneurial intention at 12% and 13%, respectively, while Latin America and the Caribbean reported the second-highest level of entrepreneurial activity at 32%. Meanwhile, people in Africa expressed the highest level of entrepreneurial intentions at 42 percent. At the country level, the GEM report (2019) shows that entrepreneurial intentions in high-income countries stand at 12.2 percent in the US, 7.2% in the UK, 6.2% in Spain, 14.8% in Argentina, 14.5 percent in Canada, and 5.9 percent in Germany (Dikaiakos *et al.,* 2017).

For the middle-income countries, entrepreneurial intentions in Colombia stand at 48.8 percent, 26.1% in Brazil, 15.3 percent in China, and 20.6% in India. Entrepreneurship is said to be mainly found in low-income countries. For instance, Egypt records 59.8%, Morocco 39.8%, Angola 79.8%, Madagascar 32.6%, and Sudan 66.7% (Bosma & Kelley, 2019). Despite this trend, relatively few students in the developing world prefer to become entrepreneurs. For example, in Jordan, only 4% of the students expressed entrepreneurial intentions; in Egypt, 13.2%; and in Tunisia, 10.2%, except for Lebanon, which reports 27.8% (Dimova, Elder, & Stephan, 2016). The overall entrepreneurial intention of African students, according to the World Bank (2018), stands at 25.6%. This means that students are less likely to become entrepreneurs as compared to adults

of prime working age, who reported 32.2% Entrepreneurial intentions. In Uganda, 18.9% of the students expressed entrepreneurial intentions, while the majority preferred paid employment (UBOS, 2017).

As a result, government efforts all over the world are in high gear to promote entrepreneurship, especially among the youth population, as a viable and feasible professional alternative (Jena, 2020; Nabi & Holden, 2008). Entrepreneurial Education, for example, has been incorporated into education curricula to prepare job creators as an intervention to curb graduate unemployment (Paray & Kumar, 2020; Puni, Anlesinya, & Korsorku, 2018b). Such efforts are also aimed at illustrating entrepreneurship to students as a career option through entrepreneurship education (Patricia & Silangen, 2016). This has been done on the premise that knowledge and skills about entrepreneurship can be taught and learned (Bahadur & Shah, 2015).

Nonetheless, a critical review of extant literature provides inconsistent evidence on the impact of entrepreneurship education on entrepreneurial intentions (Abdullahi *et al.,* 2017; Nowiński, Haddoud, Lančarič, Egerová, & Czeglédi, 2019; Thu & Le Hieu, 2017). Many claims that higher education decreases entrepreneurship's probability, while others suggest the opposite. For instance, Abdullahi *et al.* (2017) in Malaysia suggest that the more education a person acquires, the lower the individual's chances of becoming a career entrepreneur. Similarly, the results of an empirical study by Joensuu, Viljamaa, Varamäki, and Tornikoski (2013), on diploma, degree, and postgraduate students indicate that Entrepreneurial Intention seems to decrease with an increase in higher education. On the same note, Henley (2005), through a British longitudinal study, found that someone with a degree is two percent less likely than someone without a degree to aspire to entrepreneurship, and this could be attributed to mindset orientation. Entrepreneurship Training is therefore not a guarantee that students will

develop Entrepreneurial intentions. This is because higher education provides students with skills that enhance their employability (Nabi, Holden, & Walmsley, 2010).

Entrepreneurship education, on the contrary, is an appropriate mechanism for equipping participants with entrepreneurial knowledge, skills, and attitudes (Thu & Le Hieu, 2017). Studies conducted by Muharam and Serah (2014) and Odewale, Hani, Migiro, and Adeyeye (2019) established a significant and positive relationship between Entrepreneurial Training and entrepreneurial Intentions. These inconsistencies in findings affirm that Entrepreneurial Ambitions are not only explained by the Entrepreneurial course but can also be explained by several antecedents such as Attitude, Self-efficacy as articulated in the Theory of Planned Behavior, and social cognitive theory. The theory proposes that in Intentional research, attitude accounts for 40 percent to 70 percent of the variance in that particular intention or behavior (Robinson *et al.,* 1991).

Attitude towards entrepreneurship is the person's willingness to respond persistently to entrepreneurial characteristics (Mahendra, Djatmika, & Hermawan, 2017). The degree to which a person has a favorable or unfavorable evaluation of entrepreneurship determines his or her career option (Liñán & Rodríguez-Cohard, 2015b) and attitude is determined by behavioral perception (Muharam & Serah, 2014). Students may or may not feel that entrepreneurship is desirable (Bosompem *et al.,* 2017), favorable, or unfavorable (smail *et al.,* 2013). The higher the optimistic attitude, the better and stronger the student's Entrepreneurial intentions (Joensuu *et al.,* 2013).

Students must therefore consider entrepreneurship as desirable before developing Entrepreneurial intentions (Muharam & Serah, 2014). Similarly, the attitude of students toward entrepreneurial risk, work effort, and independence affects their Entrepreneurial

intent (Douglas & Shepherd, 2002). The more risk tolerant a person is, the more likely they are to aspire to be an entrepreneur (Ndofirepi, 2020). Entrepreneurs are commonly characterized as people with high levels of energy who dare to pursue risky activities with entrepreneurial self-efficacy (Mulugeta, 2016). According to Tran and Von Korflesch (2016), Entrepreneurial self-efficacy refers to a person's belief that he or she can effectively launch a new enterprise initiative. Self-efficacy has recently been correlated with the pursuit of entrepreneurial projects, unlike other contexts. The way one views his or her entrepreneurial capabilities plays a significant role in the development of entrepreneurial intentions. If students perceive entrepreneurship as beyond their capacity, despite the need, they will not pursue it (Newman, Obschonka, Schwarz, Cohen, & Nielsen, 2019).

Previous studies have positively associated Entrepreneurial self-efficacy with Entrepreneurial intentions (Newman *et al.,* 2019; Tran & Von Korflesch, 2016). People with high Entrepreneurial confidence exhibit higher Entrepreneurial ambitions. For instance, a survey of Entrepreneurial Intentions among tourism undergraduates from universities in Iran (Esfandiar, Sharifi-Tehrani, Pratt, & Altinay, 2019) demonstrates that, when compared to other predictors, self-efficacy is the most important factor in influencing Entrepreneurial Intentions. Similarly, in the early phases of a profession, a high level of entrepreneurial self-belief will lead to a higher level of entrepreneurial intention (Moralista & Delariarte, 2014). As a result, individuals with higher Self-efficacy and Intentions are more likely to engage in entrepreneurship in the future (Sweida & Reichard, 2013; Yıldırım, Cakır, & Askun, 2016).

Given the contrasting results on the relationship between Entrepreneurship education and entrepreneurial Intentions, there is an increasing need to look into how to promote entrepreneurial intent among students through both direct and interactive effects, given

that most studies were conducted in high- and middle-income countries. This study, therefore, sought to fill these gaps by determining the mechanism and conditions under which entrepreneurship education influences Entrepreneurial Intention by investigating the moderated mediation influence of entrepreneurial self-efficacy on the association between Entrepreneurship Education and entrepreneurial intentions via Entrepreneurial Attitude.

1.2 Statement of the Problem

Entrepreneurial intentions are the pathway to the attainment of desirable entrepreneurship growth and development. Through entrepreneurial aspirations, new business ventures are created that provide job opportunities to the unemployed (Adu, Boakye, Suleman, & Bingab, 2020). It's a suitable strategy to tackle household poverty and graduate unemployment (Barba-Sánchez & Atienza-Sahuquillo, 2017). Due to the significant contribution of entrepreneurship, governments are running programs to encourage individuals to become entrepreneurs. For instance, in Uganda, entrepreneurship schemes for youth and students, such as the youth venture capital fund, education loan scheme, youth livelihood fund, and vocational and entrepreneurship education, have been implemented (MoFPED, 2013).

However, the level of students' Entrepreneurial Intention is still low at 18.9 percent, as the majority (78.1 percent) of the students report a high preference for formal jobs (UBOS, 2017). This level of Entrepreneurial intentions has translated into low levels of entrepreneurship, at 18.2 percent among graduates (NCHE, 2018). Entrepreneurship careers have remained more attractive to low-educated individuals than students (ILO, 2015), as graduates choose entrepreneurship temporarily as they seek paid employment (Gindling & Newhouse, 2012). This implies that a graduate's engagement in entrepreneurship is not by choice, yet entrepreneurship is one of the possible career

choices for them. Tertiary institutions in Uganda graduate over 400,000 students, but only 90,000 can find jobs (UBOS, 2017). This, accompanied by low student entrepreneurial intentions, has resulted in massive graduate unemployment at 30 percent (Advocates Coalition for Development and Environment, 2014).

Given the pivotal role of Entrepreneurial Intentions, there has been research interest in shedding more light on the factors influencing Entrepreneurial Intentions. Through critical literature review, TPB and EEM constructs have dominated the literature. Additionally, psychological factors like risk-taking, self-efficacy, need for achievement, and attitude (Nagarathanam & Buang, 2016) besides contextual factors like social, cultural, and economic variables have been widely discussed and linked to Entrepreneurial Intentions (Krasniqi, 2009). Entrepreneurship education occupies a central position in the study of Entrepreneurial intentions among students. Although this area has been widely discussed, there is no consensus on whether Entrepreneurship education directly influences Entrepreneurial Intentions. For instance, Michelle and Tendai's (2016) results from their study of South African students indicate that Entrepreneurship Education has an insignificant direct impact on students' Entrepreneurial inclinations. Such findings are in support of the earlier findings of (Adu *et al.,* 2020; Henley, 2005; Joensuu *et al.,* 2013; Nabi *et al.,* 2010; Wu & Wu, 2008).

However, results contradict the findings (Afolabi, Kareem, Okubanjo, Ogunbanjo, & Aninkan, 2017; Ebewo, Rugimbana, & Shambare, 2017; Paray & Kumar, 2020; Gerba, 2012), where a strong and positive relationship between Entrepreneurial Training and Entrepreneurial Intentions has been established. These inconsistencies in results have called for further investigations, especially on the circumstances and mechanisms under which entrepreneurial intentions are developed (Adu *et al.,* 2020; Hassan *et al.,* 2020),

which the current study focused on by establishing the mediating and moderating influence of entrepreneurial attitude and entrepreneurial self-efficacy, respectively.

According to Liñán and Rodríguez-Cohard (2015a), the personal assessment of being an entrepreneur determines the choice of this career. Thus, Entrepreneurial Intentions are established only when students perceive entrepreneurship as attractive, favorable, and feasible (Saraih *et al.,* 2018). Relatedly, students will only opt for entrepreneurship in situations where they have the entrepreneurial abilities to do so (Newman *et al.,* 2019).

Since prior studies have yielded contradictory results and most of the research was conducted in the developed world, study variables were studied in isolation by focusing on direct effects. Following the call for further investigation on mediation and moderated mediation as an approach to getting more insights into the effect of entrepreneurship education on entrepreneurial intentions (Hassan *et al.,* 2020; Nowiński *et al.,* 2019), the current study filled these gaps by investigating the conditional indirect influence of entrepreneurial self-efficacy in the relationship between Entrepreneurship education and Entrepreneurial aspirations through entrepreneurial attitude in the Ugandan context as recommended.

1.3 Research Objectives

The following were the objectives that guided this study;

1.3.1 General objective

The study's main objective was to determine the influence of Entrepreneurship Education, Entrepreneurial Attitude, and Self-efficacy on Entrepreneurial Intentions among undergraduate finalists in public universities in central Uganda.

1.3.2 Specific objectives

i. To establish the influence of Entrepreneurship Education on Entrepreneurial Intentions

ii. To determine the influence of Entrepreneurial Attitude on Entrepreneurial intentions.

iii. To establish the influence of Entrepreneurial self-efficacy on Entrepreneurial Intentions.

iv. To determine the effect of Entrepreneurship Education on Entrepreneurial Attitude.

v. To establish the indirect effect of Entrepreneurial Attitude on the association between Entrepreneurship Education and Entrepreneurial Intentions.

vi. To determine the conditional influence of Entrepreneurial self-efficacy on the link between Entrepreneurial Attitude and Entrepreneurial Intentions.

vii. To analyze the conditional influence of Entrepreneurial self-efficacy on the association between Entrepreneurship Education and Entrepreneurial Intentions.

viii. To establish the conditional indirect influence of Entrepreneurial self-efficacy on the relationship between Entrepreneurship Education and Entrepreneurial Intentions through Entrepreneurial Attitude.

1.4 Research Hypotheses

H_{01} Entrepreneurship Education does not significantly influence Entrepreneurial Intentions

H_{02} Entrepreneurial Attitude does not significantly influence Entrepreneurial Intentions

H₀₃   Entrepreneurial Self-efficacy does not significantly influence Entrepreneurial Intentions

H₀₄   Entrepreneurship Education does not significantly influence entrepreneurial attitude

H₀₅   Entrepreneurial Attitude does not indirectly influence the association between Entrepreneurship Education and Entrepreneurial Intentions

H₀₆   Entrepreneurial Self-efficacy does not have a conditional influence on the association between Entrepreneurial Attitude and Entrepreneurial intentions.

H₀₇   Entrepreneurial Self-efficacy does not have a conditional influence on the association between Entrepreneurship Education and Entrepreneurial Intentions

H₀₈   Entrepreneurial self-efficacy does not have a conditional indirect influence on the association between Entrepreneurship Education and Entrepreneurial Intentions via Entrepreneurial Attitude.

1.5 Significance of the Study

Study findings reflect that Entrepreneurship Training empowers students to become entrepreneurs after graduation. Through Entrepreneurship Education, students acquire entrepreneurial skills, knowledge, and attitudes that aid them in opportunity recognition and identification which are necessary for business start-up processes.

The study also contributes to the empirical evidence about the determinants of Entrepreneurial Intentions in low-developed countries such as Uganda. New knowledge is advanced in the areas of Education, Strategic Management, and Entrepreneurship. Specifically, this study filled the knowledge gap by determining the mechanisms and circumstances under which Entrepreneurship Education influences students'

Entrepreneurial Intentions. These results are of great importance to developing countries like Uganda, where there is scant evidence.

Practitioners like lecturers, tutors, and teachers can use the study findings to understand how Entrepreneurial Intentions are developed. From the study findings, they can focus their efforts on those factors that simulate students' Entrepreneurial Intentions as well as influence the process to encourage entrepreneurial behavior among students.

The study findings guide curriculum developers like the national curriculum development center, university management, and the Uganda National Council for Higher Education in developing entrepreneurship curriculum content that is geared towards the stimulation of entrepreneurial Intentions among learners. According to Welsh, Tullar, and Nemati (2016), curricula should focus on the breadth of knowledge in a given area, but entrepreneurship students must have a broad but not in-depth understanding of all business functional areas. Furthermore, the study provides new insights into how to teach entrepreneurship in schools. The teaching pedagogies should be those focused on equipping students with the right entrepreneurial competencies that are necessary for entrepreneurship.

Educational and economic policymakers can use the study findings to design policies that are intended to enable graduates to realize their Entrepreneurial intentions. This is because training in entrepreneurship uplifts participants' entrepreneurial intentions (Gerba, 2012). However, due to a lack of support and an unfriendly business environment, their intentions fade after graduation. Therefore, it is imperative to have means through which graduates' accessibility to venture capital and supporting services is made easy so that they can realize their intentions.

The findings also urge policymakers and curriculum developers to devise policy guidelines for the design and teaching of entrepreneurship by ensuring that the content and delivery methods smooth the progress of knowledge acquisition in business start-ups, management, and development while supporting students' entrepreneurial self-efficacy by inculcating confidence in their abilities to become effective entrepreneurs.

Finally, the study will help the researcher to complete his doctorate. This research represents a partial fulfillment of Moi University's criteria for a doctor of philosophy in business Management degree.

1.6 Scope of the Study

Final-year undergraduate students from Makerere and Kyambogo Universities in Central Uganda were considered in this study. This is because the majority of the tertiary institutions are concentrated in central Uganda (NCHE, 2016; Nabayego, 2014). For this study, a "final-year student" is a learner who is in his or her last year of study at a university pursuing a bachelor's degree.

Content-wise, Entrepreneurship Education operated as the independent variable, Entrepreneurial Attitude played a mediating role, Entrepreneurial Self-efficacy was the moderating variable, and Entrepreneurial Intentions were the predicted variable. Though these variables are widely studied, as reflected in the extant literature, previous research has concentrated on the direct effects. Therefore, this study focused on the moderated mediation effect of Entrepreneurship Education and Entrepreneurial self-efficacy on Entrepreneurial Intentions through Entrepreneurial Attitude. This was guided by the Theory of Planned Behavior and Social Cognitive Theory and Entrepreneurial Event Model. Methodologically, the positivism research paradigm in line with the cross-sectional explanatory research design was employed to collect and

analyze quantitative data with the aid of self-administered structured instruments. The study was conducted between 2019 and 2021.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This part entails a critical review of the extant literature on Entrepreneurship training, Entrepreneurial Attitude, Entrepreneurial self-efficacy, and Entrepreneurial Intentions. It discusses the concepts of Entrepreneurship Education, Entrepreneurial Attitude, Entrepreneurial self-efficacy, and Entrepreneurial Intentions. Thereafter, the chapter presents the theories underpinning the study. The theories reviewed include the Theory of Planned Behavior, the Entrepreneurial Event Model, and the Social Cognitive Theory. Theories are followed by empirical literature that relates to Entrepreneurship Education, Entrepreneurial Attitude, and Entrepreneurial self-efficacy with Entrepreneurial Intentions as the study variables. Furthermore, it provides a basis on which the indirect influence of Entrepreneurial Attitude and the moderated mediation influence of Entrepreneurial self-efficacy on the association between Entrepreneurship Education and Entrepreneurial Intentions via entrepreneurial attitude were examined. It ends with a conceptual framework and a summary of research gaps that arise from the reviewed literature.

2.1 Concept Definitions and Perspectives

This section discusses the study concepts that are Entrepreneurship Education, Entrepreneurial Attitude, Entrepreneurial self-efficacy, and Entrepreneurial Intentions.

2.1.1 The concept of Entrepreneurial Intentions

Entrepreneurial intention consists of two concepts: "Entrepreneurship" and "Intention". Despite the absence of consensus on the meaning of Entrepreneurship, scholars consciously agree that entrepreneurship is a procedure, initiative, or activity for

transforming an idea into a high-value product (Bae, Qian, Miao, & Fiet, 2014; Hattab, 2014). Entrepreneurship is a practice in which a person starts, manages, and makes business decisions (Afolabi *et al*., 2017). Entrepreneurship also means anyone who works for himself or herself but not for anyone else, except under an arm's-length contract (Burchell, Coutts, Hall, & Pye, 2015). It is a flexible form of employment and a way out of being employed (Szaban & Skrzek-Lubasińska, 2018).

On the other hand, intention is described as the mental readiness that helps a person devote concentration, gain experience, and focus on specific behaviors or objects (Ojewumi, Oyeleke, Agberotimi, & Adedayo, 2018). It is also understood that intentions are the motivational factors that influence behavior (Oghazi, Jung, Kaveh, & Phillip, 2009). The intention is the best determinant of any behavior (Liñán & Chen, 2009). This means that the stronger the intention to carry out the activity, the greater the chance that an individual will carry out the activity (Krueger, Reilly, & Carsrud, 2000).

The two concepts "entrepreneurship" and "intention" were combined to create the notion of "entrepreneurial intentions" Entrepreneurial Intention is a mental condition that directs and steers people's behaviors toward the creation and implementation of new venture concepts (Farashah, 2013; Hattab, 2014; Ismail, Jaffar, & Hooi, 2013). According to Gerba (2012), Entrepreneurial Intention relates to the psychological preparedness that motivates individuals to choose entrepreneurship over paid employment. Bae *et al.* (2014) briefly define Entrepreneurial Intentions as the desire to start or own an enterprise. For the case of this study, Entrepreneurial Intention is the degree to which a student, after graduation from a tertiary institution, can opt for entrepreneurship rather than paid employment.

Several researchers have used a single item to assess Entrepreneurial Intentions (Piperopoulos & Dimov, 2015; Solesvik, Westhead, Kolvereid, & Matlay, 2012). One example is "the likelihood in the foreseeable future after graduation to become an entrepreneur" (Lüthje & Franke, 2003). Nonetheless, the majority of studies used an index of start intentions like the items developed by Liñán and Chen (2009) or Kolvereid's (1996) Intention to become an entrepreneur 3-Item List. According to Bae *et al.* (2014), the scales of Liñán and Chen (2009) and Kolvereid (1996) are the most common and suitable indexes for measuring entrepreneurial Intentions. Such scales are widely employed in the study of preference for entrepreneurship and entrepreneurial intent.

Literature also reveals that items relating to business start-up intentions and Entrepreneurial Intentions loaded under the same dimension (Lee, Wong, Der Foo, & Leung, 2011). For example, Iakovleva and Kolvereid (2009) investigated whether entrepreneurship intentions are distinguished from start-up intentions and business acquisition intentions. They found that in a principal component analysis, all items related to entrepreneurship and business start-up loaded on the same element. It is therefore inappropriate for researchers to evaluate entrepreneurship efforts without asking about the business start-up's intentions (Kolvereid, 2016) and the intention to be a self-employed entrepreneur (Shook, Priem, & McGee, 2003). However, starting a business is much easier than earning a livelihood as a self-employed person (Kolvereid & Isaksen, 2006).

A few studies have examined Entrepreneurial intentions as a two-dimensional variable: choice intent and behavioral intentions (Kolvereid, 2016), while according to Kim-Soon, Ahmad, and Ibrahim (2018), it comprises immediate and future intentions.

Choice intention, as an aspect of entrepreneurial intent, refers to the decision to pursue entrepreneurship over corporate employment (Kolvereid, 2016). According to Tkachev and Kolvereid (1999), "choice intention" is the occupational decision-making process about the person's choice to enter a job as an employee or as self-employed. Graduates are faced with two career options: entrepreneurship or wage employment (Ebewo *et al.,* 2017; Fernández & Rehak), and their selection of a career option is driven by their intentions (Kolvereid, 2016).

The second dimension of Entrepreneurial Intention is Behavioral Intention. This reflects the decision of a person to opt for entrepreneurship or work in an organization (Kolvereid, 2016). Behavioral Intention is the readiness of an individual to carry out a particular action. It is sometimes referred to as "instantaneous" or "instant intention" (Saraih *et al.,* 2018). Conceptually, choice intention comes first, and behavioral intention follows (Kolvereid & Isaksen, 2006). Individuals decide whether to be entrepreneurs before forming the intent to undertake a career as an entrepreneur (Kolvereid, 2016).

Unlike the above, Kim-Soon *et al.* (2018) also identified two different dimensions of Entrepreneurial Intentions; Immediate Term Intention and Future Intention. Future Intentions relate to choice intentions (Kolvereid, 2016), and sometimes they're called Goal Intentions (Krueger, 2008). This is a situation where people can certainly anticipate the future and, thus, set realistic targets (Esfandiar *et al.,* 2019) or a conscious goal of entrepreneurship (Wilson, Kickul, & Marlino, 2007). For example, "in the future, I will become an entrepreneur" (Liñán & Chen, 2009). It measures the motivation of students to set up their businesses in the future (Torres *et al.,* 2017). While Immediate Term Intention which relates to the behavioral intention of Kolvereid (2016)

refers to students, current behavior to deciding on becoming an entrepreneur (Mulugeta, 2016). It concerns the initiatives and activities of the people to achieve their intention. Such as, "I'm currently carrying out a market survey or drafting a business plan in preparation for starting a company" (Esfandiar *et al.,* 2019). Even though the dimensions of entrepreneurial intentions vary, they all use the items of Linan and Chen (2009) and Kolvereid (1996). Against this backdrop, the current study adapted measurements from Linan and Chen (2009).

Because entrepreneurship is viewed as a kind of employment, this notion has recently attracted researchers' interest. Individuals face two alternatives to their employment: either as entrepreneurs or as company employees (Ismail, 2015). Entrepreneurship is therefore one of the possible career choices for students, and this career choice is more attractive to unemployed young people, especially if it involves taking advantage of a business opportunity (Mijoč *et al.,* 2016). According to Szaban (2018), Entrepreneurship is an ideal strategy for promoting economic growth and development. This is because entrepreneurship tends to create new organizations that provide employment opportunities.

With the global unemployment dilemma, Botswana records a rate of about 18 percent, with the majority of unemployed young people aged 18 to 34 (Ebewo *et al.,* 2017), According to the Ministry of Higher Education's graduate tracer report, 24.8 percent of bachelor's students are unemployed after completing their studies (Ismail *et al*., 2013). While in Spain, it is more than 25 percent of the general population and more than 20 percent of graduates (Barba-Sánchez & Atienza-Sahuquillo, 2012). Therefore, entrepreneurship has drawn the attention of many researchers as a solution to student unemployment (Păunescu, Popescu, & Duennweber, 2018).

Since today's students are tomorrow's prospective entrepreneurs, more university students are being encouraged to consider entrepreneurship or starting a business as a profession (Solesvik, 2013; Solesvik *et al.,* 2012). However, choosing entrepreneurship is plausibly voluntary; therefore, it is vital to analyze the entrepreneurial decision-making process of students (Krueger *et al.,* 2000). It is, therefore, necessary for designers of both educational and economic policies to analyze students' intentions of choosing entrepreneurship as a career (Boukamcha, 2015).

2.1.2 The Concept of Entrepreneurship Education

Entrepreneurship Education is a formal, structured process of transferring entrepreneurial skills and knowledge that creates entrepreneurial awareness that people use when starting or developing their business ventures (Bahadur & Shah, 2015). It is a way of encouraging entrepreneurship by fostering interest in becoming an entrepreneur (Gerba, 2012). According to Michelle and Tendai (2016), Entrepreneurship Education is focused on the student's premise to achieve a learning outcome of entrepreneurial effectiveness by experiencing entrepreneurial understanding, cultivating an entrepreneurial mindset, and gaining a variety of skills and capabilities via training.

Entrepreneurial training, therefore, equips participants with the relevant skills, resources, and behaviors needed to identify and bring opportunities to life (Law & Breznik, 2017). Entrepreneurship Education's main role is to increase awareness of entrepreneurship among students (Afolabi *et al.,* 2017), and equip participants with business skills (Boukamcha, 2015; Dheer & Lenartowicz, 2016). Entrepreneurship training is one of the initiatives designed to promote entrepreneurship (Farashah, 2013)

by equipping students with entrepreneurial knowledge (Afolabi *et al.,* 2017) and highlighting the business route as a career choice (Nabi & Holden, 2008).

Entrepreneurship Education aims to provide people with general knowledge of how to become entrepreneurs (Rasmussen & Sørheim, 2006). It is any sort of learning provided to awaken an individual's sense of initiative and ability to transform ideas into reality (Doğan, 2015). This is not far from Kritskaya (2015), who argued that this is an educational program or system for attitudes toward entrepreneurship and skills. Similarly, Boukamcha (2015) defines Entrepreneurial training as a collection of activities that can take place inside or outside of the educational system, which enhances students' courage and intent to undertake entrepreneurial activities, or some cognitive processes, such as the sense of entrepreneurial desirability and feasibility, which influence intention.

This means that education in entrepreneurship extends beyond the classroom in the form of workshops, social persuasion, role modeling, or personal exposure (Pruett, 2012). Entrepreneurship Education is therefore a series of activities that give students the opportunity and vision to reach and turn opportunities of various types into businesses (Afolabi *et al.,* 2017). Entrepreneurship training in the classroom assures that every student has the potential to become an entrepreneur and that each student is in charge of his or her career destiny (Afolabi *et al.,* 2017). It's a strategy for encouraging students to be curious and inventive (van der Zwan, Zuurhout, & Hessels, 2013).

Entrepreneurship education is a practical and substantive communication between learners and teachers within the curriculum, improving learners' ability to identify, analyze and generate ideas and uniquely solve business problems. It is about increasing

the ability of students to anticipate and respond to changes in society (Afolabi *et al.,* 2017). Entrepreneurship education can manifest itself in various ways, for instance, can be offered separately–optionally or obligatorily–subject, as part of a different subject. Besides, one can take part in primary, secondary, or tertiary courses (van der Zwan *et al.,* 2013).

Small and medium-sized business skills can therefore be developed by promoting education in entrepreneurship, which will ensure a country's steady growth rate. Entrepreneurship Education's objectivity can be abused through its combination with other business disciplines (Ilyas, Zahid, & Rafiq, 2015). Management capacity can only be improved by delivering training that eventually increases the likelihood of entrepreneurship.

In this context, it is expected that tertiary institutions will release graduates who are entrepreneurially oriented (Gerba, 2012). As a result, a rising number of academic and non-academic institutions are currently designing entrepreneurial courses (Gelaidan & Abdullateef, 2017b). For example, lectures on the philosophy and theory of entrepreneurship, writing techniques for business plans, and inviting successful local businessmen as guest lecturers (Farashah, 2013). Some universities have developed a faculty or department of entrepreneurship that provides extensive curricula for undergraduates and graduates (Kritskaya, 2015).

In addition to the program, parks, and incubators have been set up to provide economic, physical, and short-term learning opportunities for existing and established entrepreneurs. Such courses have a more practical and theoretical orientation, such as developing business plans, branding strategies, and start-up funding sources (Ilyas *et al.,* 2015). It is also postulated that educational institutions could have a wide-ranging

effect on the career choices of students; in general, universities can serve as important triggers for entrepreneurship (Aboobaker & Renjini, 2020).

Entrepreneurship Education is therefore critical in helping young people develop business skills, attitudes, and expertise to consider entrepreneurship as a career option (Barba-Sánchez & Atienza-Sahuquillo, 2017; Kritskaya, 2015), as well as perceiving business opportunities and ideas (Boukamcha, 2015), and in helping students achieve success in a competitive and turbulent economy (Gelaidan & Abdullateef, 2017b). However, getting students ready to compete in the business world requires teachers to have genuine experience and be open to students to fill the gap between classroom lessons and the practical entrepreneurial world (Muharam & Serah, 2014).

2.1.3 Entrepreneurial attitude

The concept of attitude has received a lot of attention and application in different fields, especially in behavioral studies. This is because the attitude toward a particular behavior is a necessary condition for predicting that behavior (Ebewo *et al.,* 2017). On the other hand, Ajzen (1991b) defines attitudes as convictions and feelings concerning an individual's desirability to engage in a behavior. Wu and Wu (2008) state that "personal attitude" represents an individual's beliefs and opinions about a behavior. Attitude toward entrepreneurship is the choice of students to become an entrepreneur rather than organization employees (Hussain, Hashmi, & Gilani, 2018). Attitude concerns a person's evaluation of a particular object (Byabashaija & Katono, 2011; Tam, Chiew, & Chang, 2011). In other words, people create their attitudes toward observable behavior based on a favorable (positive) or Unfavorable (negative) behavioral evaluation (Mijoč *et al.,* 2016).

An assessment or evaluation of an individual can be put along a spectrum that runs from favorable to Unfavorable (Tam *et al.,* 2011) or positive to negative (Ayalew & Zeleke, 2018; Fitzsimmons & Douglas, 2005; Krueger *et al.,* 2000). The more favorable the evaluation of a behavior, the greater the intention of performing that behavior (Byabashaija & Katono, 2011), while the less favorable or attractive the behavior, the weaker the intention to perform that behavior (Saraih *et al.,* 2018). Consequently, positive attitudes towards entrepreneurship will have a positive impact on the personal appeal of starting a business since positive attitudes support a more favorable evaluation of behavior, thus increasing the chances of becoming an entrepreneur (Jena, 2020). On the other hand, negative feelings about a behavior (entrepreneurship) impair that behavior (Guerrero, Rialp, & Urbano, 2008).

Attitude toward any object has three components: affective (which are feelings and emotions), cognitive or reasoning (a thought, belief, or knowledge), and behavioral (an action) (Jena, 2020). These components shape an individual's inner cognitions, beliefs, and thoughts about an object (Purwana & Suhud, 2018). While the components of attitude in the form of feelings and beliefs are internal to a person, they can be viewed through the individual's resulting behavior (Paray & Kumar, 2020). Entrepreneurial attitudes, however, are dynamic, they continue to change over time and situations; they vary across territories, sex, and social settings (Baluku, Bantu, & Otto, 2018; Cano & Tabares, 2017). Individuals can alter (or strengthen) their attitudes and beliefs over time as they experience new conditions and new information (Politis & Gabrielsson, 2009).

Consequently, attitudes towards entrepreneurship differ over time and in other circumstances (Fayolle & Gailly, 2015). For example, entrepreneurial attitudes are influenced by several contexts, anticipated uncertainties, and benefits of initiating a business (Douglas & Shepherd, 2002). While according to Thurik, Verheul, and Grilo

(2010), economic benefits are relatively important in the evaluation of career alternatives. The individual's attitude toward engaging in entrepreneurship is also driven by both pull and push forces (Purwana & Suhud, 2018).

The push factors reflect frustration that forces people to opt for entrepreneurship as their last resort. Frustration takes the form of unemployment, layoffs, forced migrations, and the death of a breadwinner. These push people into entrepreneurship to earn a living. On the other hand, pull factors are those factors that attract people to carry on with entrepreneurship because they perceive it as lucrative (Shariff & Saud, 2009). Due to a lack of prior work experience, disappointment, and frustration among students, "push" variables are less essential than "pull" variables in shaping student attitudes (Ummah, 2009). Nevertheless, a wide range of factors, such as personality characteristics, demographic characteristics such as age, sex, family, and education, and environmental factors, inform business attitudes (Krueger & Brazeal, 1994)

2.1.4 Entrepreneurial Self-efficacy

The concept of self-efficacy is traced back to the theory of social learning (Boyd & Vozikis, 1994). This construct (self-efficacy) is extensively applied in several disciplines, not excluding career selection. But self-efficacy has recently been associated with the pursuit of entrepreneurial activities, perseverance in challenging fields, and personal effectiveness (Akanbi, 2013). In particular, self-efficacy is self-confidence in your abilities to prepare and implement activities aimed at achieving certain objectives (Bandura, 1998). Self-efficiency means simply believing in your skills and abilities (Esfandiar *et al.,* 2019).

According to Bradley and Roberts (2004), self-efficacy refers to competency and control perceptions that tend to be associated with specific behaviors like risk tolerance,

opportunity identification, and perseverance. Self-efficacy determines an individual's perception of whether a particular activity can be met or not (Boyd & Vozikis, 1994). Everybody has a particular level of confidence in his or her ability to effectively execute a certain task. Personal perception of self-efficacy has been found to increase the probability of a favorable attitude, then intentions, and ultimately the resultant behavior (Juračak & Tica, 2016).

The focus of this study was on Entrepreneurship self-efficacy (ESE), which assesses an individual's faith in the capacity to perform entrepreneurial tasks (BarNir *et al.,* 2011). ESE is one of the primary predictors of the perceived viability and feasibility of creating an enterprise (Esfandiar *et al.,* 2019). ESE is the level of a person's confidence that he or she can fulfill the entrepreneur's roles and tasks. It has been consistently linked to the purpose of a person to engage in entrepreneurship, and this construct is key in the entrepreneurship context (Bullough & Renko, 2013).

Since the development of self-efficacy is incremental over time, people create and strengthen perceptions about their efficacy in four ways, according to the social cognition theory: (1) mastery experiences through successful task completion; (2) vicarious or observational learning through watching others complete tasks; (3) social persuasion through encouragement by respected others; and (4) judgments of their physiological states. The quality of the decisions of a person's decisions arises from the synthesis and assimilation of information on effectiveness obtained from all four of these sources (BarNir *et al*., 2011). However, the individual's evaluation of the availability of resources and restraints at both personal and situational levels may influence the development of self-efficacy (Boyd & Vozikis, 1994).

2.2 Theoretical Review and Perspectives

This section entails two theories and one model that is; the theory of Planned Behavior which was the main theory; the Social Cognitive Theory and the Entrepreneurial Event Model

2.2.1 The Theory of Planned Behavior (TPB)

TPB states that a person's behavior is primarily influenced by the intention to perform that behavior—behavioral intent (Ajzen, 1991b). The intention is understood as the inspirational elements which determine a person's conduct (Ajzen, 1991b). This implies that the stronger the intention to carry out an activity, the greater the chance that an individual will carry it through (Paray & Kumar, 2020).

The intention in the TPB is the willingness to undertake a particular behavior (Ajzen, 2011). Entrepreneurial intention is a mental condition that directs and steers people's behaviors toward the creation and implementation of new venture concepts (Hattab, 2014). The immediate determinant of business activities is Entrepreneurial Intentions (Baluku, Leonsio, Bantu, & Otto, 2018). Consequently, entrepreneurship depends on the person's decision to pursue it or not (Majogoro & Mgabo, 2012). In line with the theory, attitude toward a behavior, behavioral control, and subjective norms predict entrepreneurial preference (Ajzen, 1991), which influences business start-ups' intentions and their actual involvement in entrepreneurship (Kolvereid, 2016).

Attitude toward conduct is the extent to which a person has a positive or negative view or analysis of an object (Ajzen, 1991b). Attitude towards entrepreneurship is the extent to which a person has a favorable or unfavorable assessment of becoming a business owner (Ajzen, 2001). It involves both affective ("I like it, it's attractive"), and evaluative ("it has advantages") (Liñán & Rodríguez-Cohard, 2015b). If entrepreneurship is more

appealing to students, their intention to work for themselves is lower and vice versa (Ismail *et al*., 2013; Majogoro & Mgabo, 2012).

Subjective norms assess whether there is a perceived societal pressure to engage in economic activity. To be specific, it means that "reference people" will endorse (or will not endorse) an individual's choice to engage in entrepreneurship (Ajzen, 2001). Perceived behavioral control refers to the perceived simplicity or complexity of doing entrepreneurship. This construct reflects Entrepreneurial self-efficacy in this study. Therefore, the three antecedents are the ones that control the intention to do something (Majogoro & Mgabo, 2012) as illustrated in figure 2.1. The limitation of this theory is that it does not explain how the antecedents of intentions are informed, which could be through entrepreneurship education in the study of entrepreneurial intentions. Secondly, the theory focuses on general intentions which necessitated the introduction of the Entrepreneurial event model, which specifically explains Entrepreneurial intentions
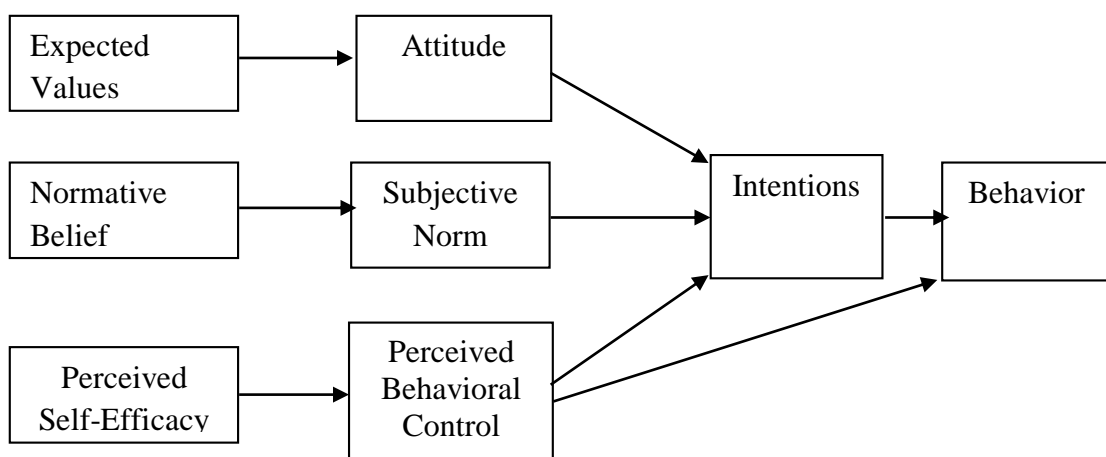
Figure 2.1: Illustration of Ajzen's Theory of Planned Behavior
Source; (Ajzen, 1991a; Krueger *et al.,* 2000)

2.2.2 Entrepreneurial Event Model (EEM)

The Entrepreneurial Event Model (EEM) was championed by Shapero and Sokol (1982b) as a tool for analyzing Entrepreneurial Intentions rather than forecasting any other intentions. EEM presumes two preconditions must be satisfied before business start-ups (Ngugi, Gakure, Waithaka, & Kiwara, 2012; Shapero & Sokol, 1982a). First, an individual has to view starting a business as a plausible idea, i.e., perceiving the idea as lucrative and feasible. Second, some form of displacement event pushes or pulls a person to alter the path, in this case, to start a business (Gerba, 2012). Displacing events could be neutral, unpleasant, or pleasant experiences that would propel or attract someone to develop entrepreneurial intentions and finally business start-up (Krueger *et al.*, 2000).

Graduating from university is an example of a neutral occasion. Unfavorable events may entail the loss of work or a lack of jobs, while pleasant events can include receiving an inheritance, winning the lottery, or having access to start-up capital (Krueger *et al.*, 2000; Shapero & Sokol, 1982a). According to the theory, there are three main factors affecting the intentions of a person to act in one way or another: perceived desirability, perceived viability, and propensity to act.

Perceived desirability refers to both intrinsic and extrinsic individuals' attraction to start a business (Boukamcha, 2015; Krueger *et al.*, 2000; Muharam & Serah, 2014). Perceived desirability reflects one's effect on entrepreneurship (Gerba, 2012) and is a motivational factor (Boukamcha, 2015). Muharam and Serah (2014) assert that a person's attitudes, feelings, and values are a result of their distinctive social environment (e.g. peers, families, educational and professional influences) which shapes the perception of desirability for entrepreneurship. Therefore, people with a

sense of business desirability can be attracted to entrepreneurship other than working for others (Patricia & Silangen, 2016).

Perceived feasibility is a person's belief that is eligible to perform activities resulting in the formation of a business venture (Krueger *et al*., 2000). In an entrepreneurial situation, people also have to determine whether they think they possess the necessary abilities and expertise to be successful or not (feasibility) (Patricia & Silangen, 2016). Consequently, expectations of viability influence career choices, including entrepreneurship (Krueger *et al.,* 2000). Entrepreneurship education can shape both students' desire and feasibility (attitudes and beliefs) (Patricia & Silangen, 2016), and this encourages a positive attitude toward entrepreneurship (Boukamcha, 2015).

Shapero and Sokol (1982a) conceptualized propensity to act as a person's tendency to perform particular actions as well as expressing desire and willingness. The inclination to exploit an opportunity varies with perceived control (Krueger *et al*., 2000). The propensity to act is believed to be related to risk tolerance propensity and uncertainty sensitivity which defines the willingness of the individual to act when results are not known (Gerba, 2012) which is not far from a behavioral attitude. A person without sufficient inclination to perform entrepreneurial roles hardly becomes an entrepreneur.

Therefore, to be an entrepreneur, one must have the vigor and motivation to initiate new ventures. For the current study, these three constructs (perceived desirability, feasibility, and propensity to act) relate to entrepreneurial attitude, and self-efficacy while Entrepreneurial Intentions reflect students' Entrepreneurial Intentions. However, this theory does not explain the role of exogenous influences like entrepreneurship education on entrepreneurial intentions as well as the entrepreneurship education and entrepreneurial attitude which social cognitive theory does.
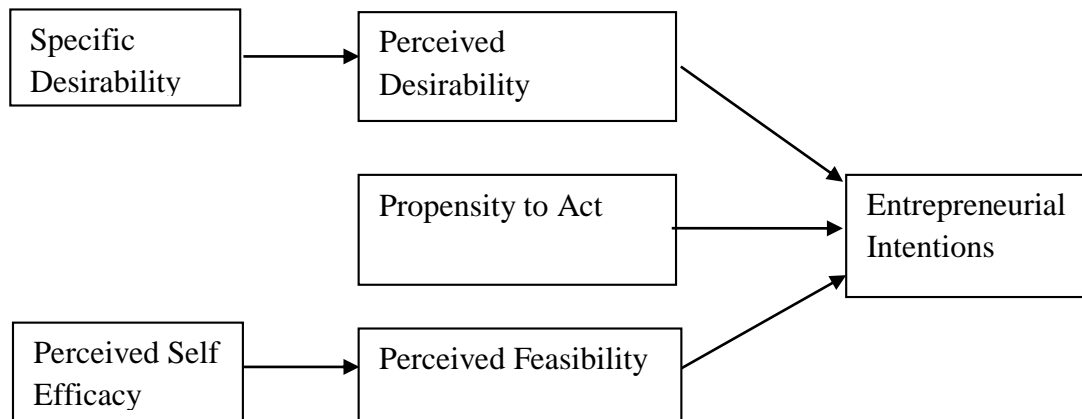
Figure 2.2: Shapero-Krueger's Model of Entrepreneurial Intentions
Source: (Krueger *et al.,* 2000)

2.2.3 Social Cognitive Theory

Bandura's social cognitive theory (SCT) bears its roots in social learning theory and has been widely applied in predicting behavior, self-efficacy (Bandura, 2005; Nabi, Liñán, Fayolle, Krueger, & Walmsley, 2017), and learning (Harinie, Sudiro, Rahayu, & Fatchan, 2017; Nabi & Prestin, 2017). The SCT states that learning occurs through an interaction between the individual (cognitive) and the environment (Bandura, 2001). Thus, learning is a function of the individual and his or her environment. As such, SCT provides a useful framework to study the mechanisms through which cognitive and environmental factors interact to explain entrepreneurial intentions (Bacq, Ofstein, Kickul, & Gundry, 2017). In terms of cognitive factors, this study focused on Entrepreneurial attitudes and entrepreneurial self-efficacy, while entrepreneurship education was considered an environmental factor.

Therefore, exposure of students to entrepreneurial courses should, according to the theory, equip students with the necessary knowledge, attitudes, values, emotional inclinations, and skills that form entrepreneurial intention (Bacq *et al.,* 2017). The theory further highlights that learning is primarily the result of observation (Bandura, 2002), implying that observer attention to relevant environmental events is necessary

for them to be meaningfully perceived (Bandura, 2001; Harinie *et al.,* 2017). This study draws on this theory to argue that entrepreneurial education can positively influence entrepreneurial intentions because entrepreneurial courses in universities provide an opportunity for learners to interact with and observe lecturers, entrepreneurs, and business executives through guest lectures and field visits (Oo, Sahaym, Juasrikul, & Lee, 2018). Also, classroom learning is often supplemented with internships, where students not only acquire the fundamental skills of entrepreneurship but develop a positive attitude toward entrepreneurial activity, including its risks and uncertainties (Nowiński *et al.,* 2019). The in-class and outside-class activities can change students' attitudes towards entrepreneurship which is in line with the assertions of SCT of developing human capital, transforming attitudes, and reciprocal behavior (Bandura, 2002)

The theory further argues that the intentions and actions of individuals are highly subjective to their beliefs (self-efficacy) in the accomplishment of assigned tasks (Bandura, 1991). Self-efficacy is a person's belief in his or her ability to perform a certain task (Bandura, 1997b). Furthermore, the theory posits that high self-efficacy directs behavior, shapes courses of action, and increases perseverance in the face of obstacles (Bandura, 2005). The association between self-efficacy and career intent has been found to range from 0.3 to 0.6 (Bandura, 1991; Krueger *et al*., 2000).

In the context of entrepreneurship, individuals with high ESE have more intrinsic interests in entrepreneurial activities (Harinie *et al*., 2017; Liguori, Bendickson, & McDowell, 2018). Therefore, ESE is a robust measure for evaluating a person's belief in his or her ability to successfully launch an entrepreneurial venture (Karlsson & Moberg, 2013). In addition, Bandura (1991) states that four principal sources of

information exist from which an individual's self-efficacy can be developed: (1) enactive mastery, i.e., one's prior performance accomplishments; (2) vicarious experience; observing how others perform; (3) verbal persuasion; feedback from others that one possesses the ability to perform well; and (4) physiological states/arousal; information about one's physiological state.

Scholars like Nowiński *et al.* (2019); Dempsey and Jennings (2014); and Oo *et al.* (2018) have shown that entrepreneurship education has the potential to provide these sources. Vicarious learning and enactive mastery can be provided to students through storytelling by successful entrepreneurs, observing their role models, and self-employed parents and guardians performing practical projects like internships (Nowiński *et al.*, 2019). Students can also meet entrepreneurs through field trips and guest lectures, as well as watch or discuss stories of successful entrepreneurs. Therefore, according to the theory, exposure to Entrepreneurial training produces increasingly higher levels of Entrepreneurial Intentions (Austin & Nauta, 2016; Welsh *et al.*, 2016).

2.3 Empirical Literature and Emerging Postulations

This subsection relates to a critical review of empirical literature concerning Entrepreneurial Training and Intentions, Entrepreneurial Attitude and Entrepreneurial Intention, Entrepreneurial Self-efficacy and Entrepreneurial Intentions.

2.3.1 Entrepreneurial Education and Entrepreneurial Intentions

Institutions of higher learning contribute to entrepreneurship through candidate training and being the seedbeds for innovative undertakings. Attending an Entrepreneurship course can substantially develop participants' entrepreneurial intentions (Iglesias-Sánchez, Jambrino-Maldonado, Velasco, & Kokash, 2016). In addition to the direct

influence of Entrepreneurial training, students can also apply the entrepreneurship route in several ways in the course of their careers. For instance, they can start new business ventures in already existing firms (Gelaidan & Abdullateef, 2017b), manage their businesses effectively (Barba-Sánchez & Atienza-Sahuquillo, 2018), and support entrepreneurs in the form of ideas and advice (Rasmussen & Sørheim, 2006). The influence of entrepreneurial courses on entrepreneurial ambitions has yielded contradicting results. Different studies have yielded both positive and negative relationships.

For example, Gerba (2012) studied engineering and business undergraduates in Ethiopia. Results show that students who participated in Entrepreneurial training reported better Entrepreneurial Intentions than their counterparts who did not. Similarly, Ebewo *et al*. (2017) assert that participating in Entrepreneurship training positively influences the student's desire to become entrepreneurs. This effect is attained by stimulating a favorable Entrepreneurial Attitude and equipping them with entrepreneurial abilities. Also, Farashah (2013), in a study from Iran argues that attending Entrepreneurial Training promotes the chances of Entrepreneurship by 1.3 times.

The study of Science and Technology Students in Nigeria by Afolabi *et al*. (2017) suggests that Entrepreneurial training is an appropriate strategy to inculcate the entrepreneurial spirit among participants. Furthermore, Prodan and Drnovsek (2010) suggest that education has a huge impact on venture creation. Candidates with a degree in entrepreneurship, therefore, grow exponentially by taking advantage of opportunity, situation, and ability. Knowledge of venture creation and confidence to venture has more impact on the establishment and growth of the venture (Mahendra *et al*., 2017). Besides, Barba-Sánchez and Atienza-Sahuquillo (2017) also assert that the only

intervention to develop students' entrepreneurship goals is by orienting them in entrepreneurship through training.

Accordingly, the more educational support the higher the stimulation of Entrepreneurial Intentions (Gelaidan & Abdullateef, 2017b). Entrepreneurial learning is achieved through education and improves the desirability of entrepreneurship (Prodan & Drnovsek, 2010). This is in line with Muharam and Serah (2014), who indicate that Entrepreneurship training and the perceived attractiveness of Entrepreneurship significantly develop Entrepreneurial Intentions. Pruett (2012) asserts that participation in entrepreneurial courses, seminars, and workshops positively influences entrepreneurial intentions. Thus, as components of Entrepreneurial Education, entrepreneurship knowledge and opportunity identification have a favorable impact on entrepreneurial intention (Puni, Anlesinya, & Korsorku, 2018a). More specifically, the comparative study by Gerba (2012) discovered that university students who had received Entrepreneurship training had better Entrepreneurial Intentions than those who had not received any training in entrepreneurship.

However, as noted earlier other studies have found conflicting results as opposed to those discussed above. For example, Nowiński *et al*. (2019), looked into whether Entrepreneurial Training influences university students' entrepreneurial intentions in the four Visegrád countries. The findings reveal numerous disparities between the four countries in terms of the impact of training on entrepreneurial intentions. Only one of the four countries, Poland, had a direct positive and significant impact on entrepreneurship education. Such findings support the findings of Abdullahi *et al*. (2017) in their study of Malaysian students, who found that the more education an

individual acquires, the lower the chances of that individual choosing entrepreneurship as an occupation.

Additionally, the results of an experimental investigation by Joensuu *et al*. (2013) about the diploma, degree, and postgraduate students indicate that Entrepreneurial Intentions seem to decrease with an increase in higher education. This was supported by Henley's (2005) longitudinal study, where he found that someone with a degree is two percent less likely to aspire to entrepreneurship than someone without a degree. The entrepreneurial courses cannot guarantee the development of Entrepreneurial Intentions among participants. This is because higher education equips students with competencies that enhance their employability (Nabi *et al*., 2010), while Wu & Wu (2008) found in a study of university students in China that engineering students have more ambitions to become entrepreneurs than students from other disciplines, including those with entrepreneurship as a major. Further findings show that there is no significant difference in entrepreneurial intentions between students who received Entrepreneurial training and those who did not and that respondents with a diploma or undergraduate degree are more interested in starting a business than those with a post-graduate degree.

Similarly, Vanevenhoven and Liguori (2013) studied North America, Eastern and Western Europe, Africa, the Middle East, and Asia Pacific, and the results show that the introduction of Entrepreneurial courses significantly and positively influences entrepreneurial Intentions in all regions except in the Middle East region, where results are negative and non-significant. Findings from the Middle East are in agreement with those from South Africa, where no association between Entrepreneurial training and Entrepreneurial Intention was found (Michelle & Tendai, 2016). Such results are not far from Mahendra *et al*. (2017), who established that there is a lack of association

between Entrepreneurial courses and Entrepreneurship Intention among management undergraduates from the state university of Malang in Indonesia. Against this backdrop, the study sought to find out the circumstances under which Entrepreneurial training determines students' Entrepreneurial Intentions.

2.3.2 Entrepreneurial Attitude and Entrepreneurial Intentions

The presence of a supportive entrepreneurial environment and a favorable Entrepreneurial Attitude and Intentions are linked to several entrepreneurial activities carried out by individuals. Entrepreneurial Attitude and Intention have been extensively studied in the past in a variety of environments and using a variety of analytical frameworks. A variety of case studies have looked into the effects of entrepreneurial attitudes on intentions among youths, notably among students, in a variety of settings around the world (Ismail, 2015). Entrepreneurial Attitude is a fundamental factor of Entrepreneurial desirability, which in turn predicts the intention to establish an enterprise and Actual Participation in Entrepreneurship (Ajzen, 2011; Kolvereid, 2016).

Attitude toward entrepreneurship and Entrepreneurial Intentions among Ethiopian engineering students were researched by Ayalew and Zeleke (2018), who discovered that Entrepreneurial Attitudes strongly predict student Entrepreneurial Intentions. Mijoč *et al*. (2016) assert that Entrepreneurial Intentions are influenced mostly by beliefs and attitudes regarding entrepreneurship. Still in the study of Bahadur and Shah (2015), Entrepreneurial intentions and behavioral attitudes were found to have a strong relationship. As a result, a person's attitude toward a behavior is critical in shaping their thinking and behavior to demonstrate their entrepreneurial intention (Mahendra *et al*., 2017). Entrepreneurs are typically described as people with strong energy levels who are willing to take risks (Verheul *et al*., 2015).

Accordingly, Mat, Maat, and Mohd (2015) empirically found that engineering technology students have a better entrepreneurial mindset about other factors such as support and resistance, self-control, and the need for achievement with Entrepreneurial Intentions. In a related study, engineering students' attitudes were found to be more important in contributing to their entrepreneurial intentions. Interesting findings from the same study demonstrated that, despite their perceived greater levels of innovativeness, attitudes are more important than other factors in determining entrepreneurial intent for engineering students (Law & Breznik, 2017). Students that have a more positive attitude about entrepreneurship indicate a greater desire to become entrepreneurs (Juračak & Tica, 2016)

Personal attitudes and perceived behavioral control, according to Ambad and Damit (2016), act in tandem with social norms to determine a person's entrepreneurial ambition. Similarly, Kadir, Salim, and Kamarudin (2012) discovered that college students' attitudes influence their desire to pursue entrepreneurship as a career positively. To summarize, a positive attitude among students is more likely to boost their desire to engage in entrepreneurship. First, it was discovered that a student's attitude has a major impact on their intention to become an entrepreneur. As a result, it is hypothesized that the more enthusiastic a student is about entrepreneurship, the higher their Entrepreneurial Intentions will be.

According to Saraih *et al*. (2018), attitude toward a behavior is the immediate determinant of that behavior, and in general, the stronger the favorable attitude toward an object, the higher the person's intent to execute that behavior. For example, Robledo, Arán, Sanchez, and Molina (2015) presented that Spanish university students with favorable attitudes toward creating a new firm are inclined to become entrepreneurs once they complete their studies. Similarly, Alharbi, Almahdi, and Mosbah (2018)

confirmed that Entrepreneurial attitudes among university students were the main factor influencing students' Entrepreneurial Intentions in Saudi Arabia. Besides, Tognazzo, Gianecchini, and Gubitta (2017) found that personal attitude affected the Entrepreneurial Intent of university students in Italy. Furthermore, it has been established that entrepreneurial attitude is significantly related to entrepreneurial intention among international students in Turkey (Usman, 2019).

The association between Entrepreneurship Attitude on Entrepreneurial Intent is widely supported as it plays a crucial role in predicting business activities. Students' ability to realize their business intentions in the future largely relies on their entrepreneurial attitude and entrepreneurial characteristics (Kusmintarti, Thoyib, Ashar, & Maskie, 2014). This relationship is found to be true when students perceive Entrepreneurship as attractive and the role models around them play a motivational role. Students have a better possibility of starting new firms in such a setting. As a result, it may be claimed that intention is influenced by motivational factors, with attitude influencing motivation (Farrukh, Alzubi, Shahzad, Waheed, & Kanwal, 2018).

2.3.3 Entrepreneurial Self-efficacy and Entrepreneurial Intentions

Entrepreneurial self-efficacy (ESE), which refers to an individual's belief in his or her competence to fulfill tasks and roles geared toward entrepreneurial objectives (Shahab, Chengang, Arbizu, & Haider, 2019), has a significant impact on whether people pursue entrepreneurial professions and engage in entrepreneurial activities. Self-efficacy has been widely applied in different fields to predict any behavior (Ballout, 2009; Jimmieson, 2000; Lai & Chen, 2012). Self-efficacy, according to most researchers, is aimed at a specific behavior or outcome, such as one's career or creative endeavors (Newman *et al*., 2019).

When it comes to regulating the environment, a person with a high level of self-efficacy demonstrates greater intellectual capacity, dynamic capabilities, and productivity (Bandura, 1997). To put it another way, these people have more control because they can plan for the best and worst-case scenarios, respond to changes in plans, and manage environmental volatility. Individuals with high levels of self-control can anticipate difficulties that may prevent them from accomplishing their objectives, which is essential for entrepreneurial success (Margahana & Negara, 2019). This is well supported by various empirical studies, as discussed below:

According to Akmaliah and Hisyamuddin (2009), who studied secondary school students' Entrepreneurial Intention based on the TPB, there is a positive association between Entrepreneurial self-efficacy and Entrepreneurial Intentions. This is further supported by Piperopoulos and Dimov (2015) in practical-focused courses, where there is an idea that stronger self-efficacy is linked to stronger entrepreneurial intentions. Similarly, Naktiyok, Karabey, and Gulluce (2010) investigated university students in Turkey and suggested that students with high Entrepreneurial self-efficacy have a strong relationship with entrepreneurship career development, which leads to higher Entrepreneurial Intentions (Moralista & Delariarte, 2014). This means that individuals who have both high self-efficacy and strong goals are more likely to pursue entrepreneurship in the future (Yıldırım *et al*., 2016).

It is further observed in the study of Schmutzler, Andonova, and Diaz-Serrano (2018) that the favorable effect of knowing fledgling entrepreneurs as a driver of entrepreneurial intentions is smaller for persons with Entrepreneurial Self-efficacy than for those who do not believe they can effectively launch a company endeavor. In the same vein, Shahab *et al*. (2019) found a favorable link between Entrepreneurial Self-

efficacy and Entrepreneurial Intentions among undergraduates in China and Spain. Wang, Chang, Yao, and Liang (2016) argued that the influence of self-efficacy on conviction was significantly stronger than that on preparation, which are dimensions of Entrepreneurial Intentions among agricultural college students in central Taiwan. These findings corroborate those of a previous study (Barbosa, Gerhardt, & Kickul, 2007), which asserts that risk-tolerant people have higher levels of entrepreneurial intent and opportunity recognition belief, whereas people who choose low-risk have higher levels of connection efficacy and tolerance efficacy.

As illustrated above, many studies show the association of self-efficacy with work-related outcomes and Entrepreneurial Intentions. This should be expected because people's self-confidence directly determines their behavior. Furthermore, an entrepreneur needs self-efficacy and a strong belief in the value of what they are trying to accomplish to overcome skepticism and early rejection aimed at their innovations. It stands to reason that someone with a strong sense of self-confidence has more chances to take initiative and tolerate uncertainties, which can lead to bigger payoffs.

Conversely, when people have little belief in their ability to accomplish a task, they tend to avoid situations that are challenging (Piperopoulos & Dimov, 2015). Given the fact that self-confidence is a strong predictor of positive work-related outcomes and the assumption that the theoretical grounds of social cognitive theory lend support to the drive of innovators and the association of self-efficacy and Entrepreneurial Intentions (Neto, Rodrigues, Stewart, Xiao, & Snyder, 2018), it makes sense to conclude that Entrepreneurial confidence is expected to predict Entrepreneurial Intent.

2.3.4 Entrepreneurship education and Entrepreneurial Attitude

Past research shows that entrepreneurship teaching is one of the ideal mechanisms to inculcate an entrepreneurial spirit in both future and emerging entrepreneurs. Hattab (2014) claims that education has a positive impact on students' entrepreneurial attitudes. The level of entrepreneurial attractiveness among Egyptian students has been found to grow as a result of education. Similarly, Welsh *et al*. (2016) concluded that entrepreneurial training significantly improves the attitudes of students toward choosing an entrepreneurial career in the United States. In a similar study by Tshikovhi and Shambare (2015), high levels of entrepreneurship were observed among South African students to determine favorable attitudes toward entrepreneurship.

Entrepreneurship education has a favorable and significant effect on Polish and French students' entrepreneurial attitudes. It was also established that, while female students are more likely to gain from their education, the impact of entrepreneurship training on male students is also significant. However, in the same study, the course was found to negatively impact German male students (Packham, Jones, Miller, Pickernell, & Thomas, 2010). Accordingly, Fayolle and Gailly (2015) suggest that an entrepreneurial course significantly impacts students' attitudes and that this impact persists for only six months after the program. This implies that beyond this period, their attitudes are shaped by other contextual factors other than education.

Similarly, Nabi, Holden, Harris, and Gibson (2008) urge that, without practical entrepreneurial experience, entrepreneurial training offers an opening for them to gain entrepreneurial experience through contact with practicing entrepreneurs, thus influencing the entrepreneurial attitude of students. On the other hand, Gibson, Harris, Mick, and Burkhalter (2011) indicate that students with an entrepreneurial experience

report a high positive impact on the development of entrepreneurial attitudes compared to community college students when undergoing entrepreneurial education at different levels of institutions, although both groups report similar results.

Besides, Byabashaija and Katono (2011) established a little but significant change in students' attitudes as a result of entrepreneurship education. This suggests that students' perception of entrepreneurship as a job of choice improved during the time they were exposed to the entrepreneurial courses. The findings are consistent with those of Alharbi *et al*. (2018), who found that entrepreneurial education significantly improves attitudes toward entrepreneurship after comparing two groups, one of which pursued entrepreneurship courses and the other which did not. Therefore, this study proposes that an entrepreneurial course significantly influences students' Entrepreneurial ambitions.

2.3.5 The mediating role of Entrepreneurial Attitude

Despite the rare literature on the indirect effect of Entrepreneurial Attitude on the link between Entrepreneurial Education and Entrepreneurial Intents, there exists a body of research establishing the effect of Entrepreneurship Education on attitude and attitude on Entrepreneurial Intentions. Researchers have consistently and continuously established a favorable relationship between entrepreneurial training and Attitude. For instance, according to Ebewo *et al*. (2017), participation in entrepreneurship training in Botswana has a favorable impact on students' attitudes toward entrepreneurship as a career option. Entrepreneurial education can help people develop entrepreneurial attitudes and habits that will help them become self-employed (Alharbi *et al*., 2018). Thus, an appropriate Entrepreneurship Education program changes students' Entrepreneurial Attitudes and increases the entrepreneurial rate (Farashah, 2013).

Similar to the above, Gorgievski, Stephan, Laguna, and Moriano (2018) found that attitudes mediated the effect of values on career intentions among students from Spain, Dutch, German, and Poland. Attitude toward becoming a social entrepreneur mediates the relationships between self-efficacy and social Entrepreneurial Intentions, emotional intelligence, and Social Entrepreneurial Intentions of final-year engineering students (Tiwari, Bhat, & Tikoria, 2017). This mediating effect was further discovered by Mahendra *et al.* (2017), who argued that Entrepreneurial Attitude is a pathway through which Entrepreneurship Education determines Entrepreneurial Intentions.

Furthermore, studies such as Abdullahi *et al.* (2017), Krasniqi (2009), and Shamsudin, Al Mamun, Nawi, Nasir, and Zakaria (2017) show that entrepreneurship training has a negative impact on entrepreneurial intent. This implies that as education increases, the intention of individuals to become Entrepreneurs reduces. Therefore, participation in an entrepreneurial course will not directly guarantee the stimulation of entrepreneurial preference unless entrepreneurship education is geared towards the stimulation of entrepreneurial attitude through which it influences Entrepreneurial intentions (Miralles & Riverola, 2012). Based on this backdrop, this study sought to determine the indirect influence of Entrepreneurial Attitude on the association between Entrepreneurial training and Entrepreneurial ambitions.

2.3.6 The conditional effect of Entrepreneurial self-efficacy

Due to the scanty literature in this area, this study proposes that Entrepreneurial Self-Efficacy moderates the direct and indirect link between Entrepreneurial Training and Entrepreneurial Intent. This proposition is made by drawing on the moderation effect of self-efficacy that has been consistently found in different related fields. For instance, according to Zhang *et al.* (2017), self-confidence has a significantly positive conditional

influence on the association between perceived usefulness and adoption intention of mobile health services. They also found that self-efficacy plays a critical role in an individual's adoption of mobile health services. This not only affects their perception of the ease with which they can use mobile health services but also helps to moderate the impacts of perceived usefulness on adoption intention.

Yang, Wang, and Lu (2016) report that social self-efficacy favourably moderates the association between mobile social networking service enjoyment and mobile social networking services' high engagement. At the same time, self-efficacy, according to Jimmieson (2000), moderates the major impacts of work control on job satisfaction. Chen (2015) also finds that general self-efficacy has an enhancing conditional effect, amplifying the indirect association between supervisor support and employee innovative behavior through intrinsic motivation.

Such results are not different from those of Brown *et al*. (2001), who found that the joint influence of information seeking and Self-efficacy moderated self-control, and therefore high-self-efficacy employees were able to use a mix of inquiry and monitoring to explain role expectations, whereas low-self-efficacy employees were unable to do so. Similarly, Ahlin, Drnovšek, and Hisrich (2014) reveal that entrepreneurial confidence conditions the association between an entrepreneur's originality and firm innovation.

In line with the current study, Joensuu *et al*. (2013) assert that students will only develop Entrepreneurial intentions when they believe that entrepreneurship education equips them with the necessary competencies to undertake entrepreneurial endeavors. The research adopted Entrepreneurial Self-efficacy as a moderator following the recommendations from previous studies that advocated for investigating the

circumstances under which Entrepreneurships Education influences Entrepreneurial Intentions (Mahendra *et al*., 2017; Michelle & Tendai, 2016). Therefore, the moderating impact of Entrepreneurial self-efficacy in this study is anticipated on the grounds of previous empirical studies that have continuously established the moderating influence of self-efficacy.

Table 2.1: Summary of knowledge gaps

Author/s	Topic	Methodology	Findings	Research gap	The current study
Gelaidan and Abdullateef (2017a)	The role of self-confidence, educational, and relational support in business students' entrepreneurial intentions in Malaysia	Business students at a Malaysian university were surveyed using a cross-sectional design and quantitative data.	Educational and relational support positively relates to entrepreneurial intentions. Self-confidence did not moderate the relationships.	Focused on direct and moderation effects. Data was collected from only business students. measured intentions using a single source which could increase measurement error	Tested mediation and moderated mediation effects of both business and non-business students. Intentions were measured using multiple items to minimize measurement error.
Puni *et al*. (2018b)	Intentions, self-efficacy, and entrepreneurial education in Sub-Saharan Africa	A single survey of 357 questionnaires from final-year undergraduates was carried out. This is prone to common method bias.	Entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial intentions were found to have a positive and significant relationship. Finally, this relationship was mediated by ESE.	Used simple linear regression analysis. This could give the unique variance by the study variable. studied two predictors	Hierarchical regression analysis was employed. Three predictors were studied. This study focused on mediation analysis as well moderated mediation analysis was performed. Two surveys were conducted
Shahab *et al*. (2019)	Do entrepreneurial creativity and education matter for entrepreneurial self-efficacy and intention?	A single survey design was used to collect data from a group of 808 Chinese and Spanish students.	Entrepreneurial creativity and attitude are found to mediate the relationship between entrepreneurial self-efficacy and intentions. Entrepreneurial creativity is influenced by EE in both countries.	The dependent variable was not separated from the independent variables. this increases the presence of common method variance	Two surveys were carried out. the first survey collected data about the independent variables while the second survey collected data about entrepreneurial intentions and covariates.
Ebewo *et al*. (2017)	The Impact of Entrepreneurship Education on Students' Entrepreneurial Aspirations in Botswana	A descriptive survey of 343 university students in their final year was conducted. The self-administered instrument was used to collect data using a stratified random sampling technique.	The findings show that entrepreneurial intentions are influenced by all three immediate antecedents of entrepreneurial intention: attitude toward entrepreneurship, subjective norm, and perceived behavioral control (perceived entrepreneurial abilities).	The focus of the research was on the impacts.	The goal of this study is to determine whether entrepreneurship education has an indirect and moderated mediation effect on entrepreneurial intentions.

Abdullahi *et al.* (2017)	Entrepreneurial Intention Revisited: Using Structural Equation Modelling to assess the Impact of the Socio-Cultural Business Environment	Data was collected from university students in their final year using a cross-sectional survey method. Random numbers generated by the computer were used to select respondents from the sampling frame.	According to the findings, education has a negative relationship with entrepreneurial intent, whereas religion and family background has a positive relationship with entrepreneurial intent.	Focused on relationships and did not control for respondent's profiles like family background and religion.	The study provides evidence for mediation and moderated mediation while controlling for the covariates
Barba-Sánchez and Atienza-Sahuquillo (2018)	Engineering students' entrepreneurial intentions: what role does entrepreneurship education play?	The longitudinal research design was used to collect data from 219 industrial engineering students and 204 computer engineering students at the beginning and end of their final year via an online questionnaire.	The findings show that the desire for independence is the most important factor in future engineers' entrepreneurial intentions and that entrepreneurship education has a positive impact on their intentions.	Focused only on engineering students and direct links as well as moderation	Utilized cross-sectional explanatory research design and data was collected using multistage sampling techniques. The analysis focused on moderated mediation.
Baluku *et al.* (2018)	The Moderating Role of Individualism in the Effect of Locus of Control on Entrepreneurial Attitudes and Self-Employment Intentions	Final-year undergraduate students in Germany and two East African Community countries participated in a comparative study (Kenya and Uganda). PROCESS Macro was used to test the hypotheses in this study.	Entrepreneurial attitudes and self-employment intention are predicted by both internal locus of control and culture, according to the findings. Entrepreneurial attitudes mediate the effects of the international locus of control. Furthermore, culture has an impact on the indirect effect. The findings also show that the East has a competitive advantage.	Compared low-income countries (Uganda and Kenya) with the high-income country (Germany). thus, investigating the influence of culture	The purpose of this study was to compare business and non-business entrepreneurial intentions in the same context.
Law and Breznik (2017)	Impact of entrepreneurial intent on innovation and creativity and attitude among engineering and non-engineering students	Engineering and non-engineering students were compared. A total of 998 Hong Kong students were studied.	Engineering students' "attitude" is found to play a larger role in their "entrepreneurial intent." When compared to non-engineering students, engineering students have significantly higher levels of 'attitude,' 'learning motivation,' 'self-efficacy,' and entrepreneurship intention.	Focused on direct effect and data was collected in one survey.	The study sought to establish the moderated mediation effect of entrepreneurship education on entrepreneurial intentions. Data was collected using a multistage probability sampling technique

Fuller, Liu, Bajaba, Marler, and Pratt (2018)	Examining how potential entrepreneurs' personalities, self-efficacy, and anticipatory cognitions shape their entrepreneurial intentions	Data was gathered from a group of 870 potential entrepreneurs who had enrolled at a university in the United States.	Entrepreneurial self-efficacy does not appear to be directly related to entrepreneurial intentionality	A single self-reporting survey was conducted. Data for both the independent and dependent variables were collected from the same respondents at the same time. It was unavoidable to have method bias.	The goal of this study was to see if entrepreneurial self-efficacy had a moderating effect on both the direct and indirect effects of entrepreneurship education on self-employment intentions.
Nowiński and Haddoud (2019)	The influence of entrepreneurship education, entrepreneurial self-efficacy, and gender on university students' entrepreneurial intentions in Visegrad countries	Data for the study were collected from the four Visegrad countries. The research took place on multiple campuses. data was collected using a non-probability convenience sampling procedure	The direct impact of entrepreneurship education was Positive and significant in only Poland. Also, a mediating effect of EE on EI was established.	The study was limited to the mediation test	The goal of the study was to see if entrepreneurship education had a moderated mediation effect on entrepreneurial intentions.
Rosique-Blasco, Madrid-Guijarro, and García-Pérez-de-Lema (2018)	Personal abilities and self-efficacy have an impact on entrepreneurial intentions.	The data was gathered in two stages from university students from two different groups: engineering and business. A single survey was carried out.	The results show that when all variables are considered, there is no significant difference between business and non-business students. The effects are reported to be positive and significant.	A single survey was conducted and focused on mediation	Two surveys were carried out and tested for moderated mediation
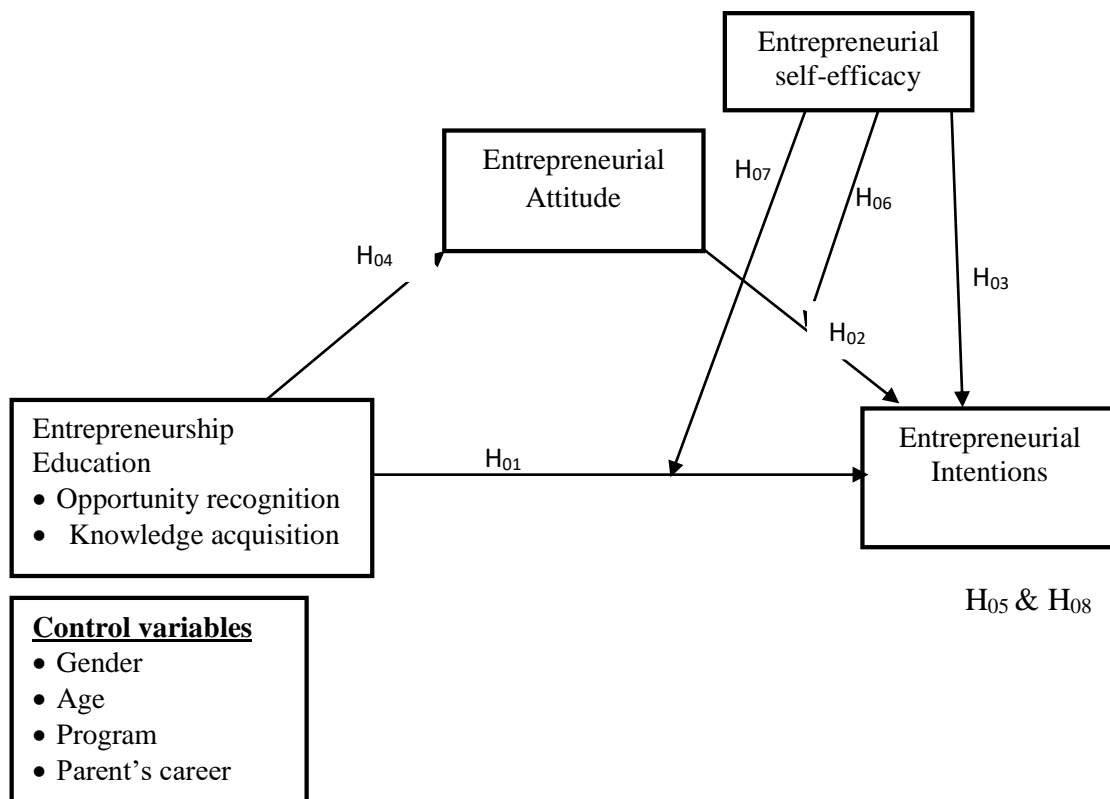
Figure 2.3: Conceptual model for the study
Source: (Model 15 adopted and modified from Hayes, 2013)

Through a critical literature review, contextual and methodological gaps were identified, which this study filled using the proposed conceptual model in figure 2.3 above. For instance, studies have yielded contradictory results about the association between Entrepreneurial training Education and Entrepreneurial Intents. The majority of the studies have dealt with direct effects; thus, little is known about mediating and moderated mediation effects in this area. Therefore, this study proposes the above conceptual framework to fill the research gaps.

A conceptual model is also referred to as a hypothetical model since it is used to illustrate the hypotheses of the study. Concerning the above conceptual framework, Entrepreneurial Intentions operated as the outcome variable, Entrepreneurial training

operated as an independent variable, Entrepreneurial Attitude was the mediator while Entrepreneurial Self-efficacy was the moderating variable. It shows four direct effects (H01, H02, H03, and H04): Entrepreneurial training and Entrepreneurial Intents, Entrepreneurial Attitude and Entrepreneurial Intents, Entrepreneurial self-efficacy and Entrepreneurial Intents, and Entrepreneurial training and Entrepreneurial Attitude.

The conceptual framework also proposed that Entrepreneurial training indirectly influences Entrepreneurial Intents through Entrepreneurial Attitude (H05) while Entrepreneurial self-efficacy moderates the association between Entrepreneurial Attitude and Entrepreneurial Intentions (H06) and Entrepreneurship Education and Entrepreneurial Intentions (H07). Furthermore, it indicates Entrepreneurial self-efficacy moderates the indirect influence of Entrepreneurial Attitude in the association of Entrepreneurship Education and Entrepreneurial Intents (H08).

Research has found that individual characteristics are associated with Entrepreneurial aspiration (Henley, 2007). This study adopted four control variables: age, gender, family background, and program. Female entrepreneurs encounter attitudinal and resource constraints, and studies show that females are less likely than men to express entrepreneurial ambitions (Lee *et al*., 2011; Liñán & Rodríguez-Cohard, 2015b; Nowiński *et al*., 2019). Females were given a code of "0," while male students were given a code of "1."

Age as a demographic factor has attracted less attention in the literature, yet age is likely to affect entrepreneurial outcomes. An individual's age impacts the quality of his decisions. Entrepreneurship has been presumed to be a career preference for the young population around 20 years old, which population was the focus of this study. However. Empirical evidence provides mixed results. For instance, older people are found to have

entrepreneurial experience, which is positively correlated with entrepreneurial intentions (Tkachev & Kolvereid, 1999; Ferreira *et al*., 2017). According to Sahut *et al*. (2015), there is a negative relationship between age and entrepreneurial intent. Thus, an individual's entrepreneurial intent declines with an increase in age. For this study, students' age was measured in terms of age brackets; see the questionnaire.

In terms of family background, Solesvik (2013) reports that children of business owners tend to follow in their parent's footsteps. While Basu and Virick (2008) and Pruett, Shinnar, Toney, Llopis, and Fox (2009) also suggest that Entrepreneurial ambitions are highly determined by the existence of entrepreneurial parenting, students with parents in formal jobs report low entrepreneurial ambitions. Students with formally employed parents or guardians were coded "0," whereas their counterparts were coded "1."

On the other hand, students' specialization also has an impact on their career intentions. Students pursuing business-related programs are most likely to report higher entrepreneurial intentions due to their more rigorous orientation to business than their counterparts. According to Solesvik (2013), students who studied business programs had stronger entrepreneurial inclinations than engineering students in Ukraine. Similarly, Herman and Stefanescu (2017) found similar results in Romanian businesses. Therefore, there was a need to control this variable to avoid influencing entrepreneurial intentions. The variable was measured by assigning "0" to non-business students and "1" to business students.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter includes the research philosophy for the study, the study area, the research design, the target population, the sampling design, the sampling procedure, the unity of analysis and inquiry, the data collection method, the instrument validity and reliability, the measurement of variables, the data analysis, and presentation, and ethical considerations for the study.

3.1 Research Philosophy

Positivism and subjectivism have been described as the most common research paradigms in the natural and social sciences, respectively. Positivism postulates that knowledge exists outside of the researcher and is independent of them (Chirkov & Anderson, 2018), while subjectivism maintains that reality does not exist outside of oneself, that one's mind is one's world, and hence reality is all imagination (Holden & Lynch, 2004). This study adopted a positivist research philosophy, which is in line with quantitative research design (Mkansi & Acheampong, 2012), to collect data from a sample so that results are generalizable to the entire populace (Creswell & Creswell, 2017). Positivism was preferred due to its objectivity and ability to cover a wider scope within a short time frame. To generalize results, it was necessary to select a large sample whose findings could be used to predict, explain, and understand a particular phenomenon (Holden & Lynch, 2004).

Positivism assumes that knowledge exists outside of the researcher and is independent of him or her (Chirkov & Anderson, 2018), and positivists think that scientific discoveries can be used throughout time and in various circumstances (Giacobbi,

Poczwardowski, & Hager, 2005). Therefore, this study adopted objective epistemological and ontological perspectives, which presume the existence of a true reality that can be measured and comprehended using scientific means (Giacobbi *et al*., 2005). According to Riazi (2016), epistemology is concerned with the nature and source of legitimate knowledge as well as the ability of study subjects or participants to possess knowledge. While ontology is about the nature of reality and whether an "objective" reality exists "independent of the researcher," it is also concerned with the nature of consciousness.

3.2 Research Design

A cross-sectional explanatory research design was utilized to gather and analyze quantitative data about the study variables. A cross-sectional field survey was applied to obtain data that is robust enough for this study to make inferences on the findings of the effect of Entrepreneurial training, Attitude, and Self-efficacy on Entrepreneurial Intent. This is because quantitative data enables a researcher to obtain a larger sample size within a limited time frame (Gelaidan & Abdullateef, 2017b). Furthermore, with the use of this technique, responses can be easily and efficiently analyzed statistically. A descriptive analysis was also carried out to describe the characteristics of the selected final-year students in terms of age, gender, program, and family background. This was done in the form of frequency tables, standard deviation, mean, and kurtosis.

3.3 Study Area and Target Population

This subsection elaborates on the study area and the target population from which a representative sample was drawn.

3.3.1 Study area

Only Uganda is a member of the global entrepreneurship monitor among East African countries; hence, the research was conducted there. To add on, the country registers 80 percent overall unemployment (Nabayego, 2014), 64 percent to 70 percent of youths are unemployed, and 30 percent of graduates are unemployed (Advocates Coalition for Development and Environment, 2014). Specifically, central Uganda was considered in the study because, according to NCHE (2018; 2011), about 50 percent of the tertiary institutions are concentrated in this region.

Uganda's Central Region is one of the country's four regions. The population of the region was 9,529,227 people according to Uganda's 2014 census, and over 45% of the student population is in this region (UBOS, 2017). It is made up of the Buganda kingdom, one of Uganda's officially recognized ancient African monarchies. Central Uganda is divided into 24 districts and is home to Uganda's capital, Kampala. The region is bordered by the eastern region in the east, the northern region in the north, and the western region in the west, while the south is bordered by Lake Victoria (see appendix 11).

Of all the tertiary institutions in Uganda, only Makerere University and Kyambogo University were considered for this study because they are the oldest, largest, and leading tertiary institutions that have rolled out entrepreneurship education across all programs (NCHE, 2015). According to the Uganda National Council for Higher Education Tracer study, only 18.2% of graduates succeed in launching their businesses (NCHE, 2018). Yet all students are subjected to an entrepreneurial course to highlight entrepreneurship as a career option and prepare them for this career, it was prudent to study final year undergraduate students after undertaking the course.

3.3.2 Target population

The study population comprised 6,408 undergraduate finalists from Makerere and Kyambogo Universities in central Uganda. Public universities were preferred for this study due to their ability to fully roll out government programmes like entrepreneurship education as compared to private universities, which are profit-driven. Therefore, the unit of inquiry and analysis for this study was undergraduate final-year students. This is due to the high rate of graduate unemployment in the country; for instance, universities release approximately 400,000 graduates annually into the job market (NCHE, 2018), but only 90,000 of them can find jobs; thus, 310,000 are left unemployed (UBOS Statistical Abstract, 2017).

In the context of increasing unemployment in Uganda, only a few graduates from universities engage in Entrepreneurship (Ebewo *et al*., 2017). For example, in the tracer study carried out by the NCHE in 2015 for graduates from 2011, only 18.2 percent of degree graduates were entrepreneurs (NCHE, 2018). Yet the exposure of students to Entrepreneurship Education is considered a vital motivation to steer the entrepreneurial drive among learners (Moses, Olokundun, Akinbode, Agboola, & Inelo, 2016; Titilayo, 2015).

The choice of undergraduate finalists is because they are expected to seek gainful employment or start businesses soon after their studies (Ebewo *et al*., 2017; Welsh *et al*., 2016). Students were considered for the study because the Entrepreneurial Intentions of people who completed their education could be determined by environmental factors other than education (Puni *et al*., 2018a). Undergraduate students were considered because their enrolment rate is high and stands at 73 percent as compared to other levels like postgraduate and certificate in all tertiary institutions and Uganda, where all undergraduate students are taught entrepreneurship as a course

(NCHE, 2018). Therefore, due to the critical contribution of universities in influencing students' career choices and given the current employment status of graduates, a study in this area is warranted.

3.4 Sample Size and Sampling Design

This section entails how the sample was determined and how it was derived from the study population.

3.4.1 Sample size

A sample of 458 students was determined using the formula of Taro Yamane (Kotrlik & Higgins, 2001) at a 95.5 percent confidence level, thus a 4.5 percent sampling error. The decision to fix the sampling error at 4.5 percent was based on the general rule relative to acceptable margins of error, which range between 3 percent and 5 percent (Bambale, 2014). Therefore, a researcher may decide to increase or decrease the values where a lower or higher level of precision is required, respectively (Kotrlik & Higgins, 2001). Yamane's formula was utilized, as elaborated below:

$$n = \frac{N}{(1 + N(e)^2)}$$

Where;

n (sample size) =?

N (population size) = 8,724

e (level of precision) = 0.045

$$n = \frac{6408}{(1 + 6408(0.045)^2)} = 458$$

A sample of 458 was presumed large enough to represent the study population for this study since it's higher than the minimum of 400 as recommended by Zikmund, Carr,

Babin, and Griffin (2013). Large samples have sufficient power to test quantitative relationships, and such findings are generalizable to the entire population from which the sample was drawn (Tharenou, Donohue, & Cooper, 2007). Thereafter, the sample size was proportionately distributed among the universities and their respective colleges and faculties. The formula was applied as follows:

$$n_h = (N_h/N)n$$

Where; n_h = sample size for category h

            n = sample size for the population

            N_h = the population size for the stratum

            N = population

Table 3.1: Sample Size Determination

Universities	Population (N)	Method	Sample size (n)
Makerere University			
College of Business and Management Science	1,505	1,505/2,954*211	108
College of Computing and Information Science	748	748/2,954*211	53
College of Engineering Design Art and Technology	701	701/2,954*211	50
Total	**2,954**	**2,954/6,408*458**	**211**
Kyambogo University			
Faculty of Arts and Social Science	1,629	1,629/3,454*247	116
Faculty of Education	591	591/3,454*247	42
Faculty of Management and Entrepreneurship	1,234	1,234/3,454*247	88
Total	**3,454**	**3,454/6,408*458**	**247**
Grand Total	**6,408**		**458**

Source: University Academic Registrar's Office (2019)

3.4.2 Sampling design

The study employed a multistage sampling technique whereby different or the same sampling technique(s) were applied at three stages of the sampling process. The first stage involved randomly selecting three colleges and faculties from Makerere and Kyambogo Universities, respectively. This was done by using the lottery method, where the names of colleges (for Makerere) and faculties (for Kyambogo) were written on pieces of paper, folded, put in two different tins, shaken vigorously, and then three papers were picked at random from each tin. This was done separately for each university, Kyambogo University, and Makerere University.

Thereafter, the sample size was proportionately allocated to the two universities, followed by the three colleges and faculties. This was done by dividing each institution's population by the overall study population multiplied by the study sample size (see table 3.1 above). Then, at the third stage, a systematic sampling technique was used, as recommended by Tharenou *et al*. (2007) for large populations, to identify the final respondents. This was done by dividing each college's or faculty's population by its sample size to determine the interval (Kth number) that was followed when identifying the actual participants. This was done following a sampling frame for each faculty obtained from academic registrars at universities. This study opted for multiple sampling methods because it helps minimize errors or biases in the course of selection (Puni *et al*., 2018a).

3.5 Data Sources

The research purely relied on primary sources. Here, data were collected directly from respondents using a self-administered questionnaire. Participants were identified in their lecture halls, and those who declined were replaced. They were given plenty of

time to complete the questionnaire to guarantee that the data collection procedure was as accurate as possible.

3.6 Operationalization of Variables

The study variables were measured by adapting items that are already established from existing literature. This was done through a critical literature review, where necessary items were obtained and modified to suit the study.

3.6.1 Measurements for Entrepreneurial Intentions (dependent variable)

Entrepreneurial Intentions were measured as a unidimensional variable by adapting 10 measurement scales (Kim-Soon, Ahmad, & Ibrahim, 2014; Liñán & Chen, 2009). Entrepreneurial Intentions items included; "I am ready to do the needful to start-ups my own business", "I will make every effort to start and run my own business", "I am determined to create a firm in the future", "I am determined to create a firm in the future", "I have very seriously thought of starting a firm", "I have a strong belief to become an entrepreneur", "I intend to start a firm within five years of graduation", "I prefer to be an entrepreneur in my expertise", "I have strong intentions to start my own business after completing my study", "I prefer to be an entrepreneur rather than to be an employee in a company" and "I am delighted to face the challenges of creating a new business". All items were anchored on a seven-point Likert scale that ranged from 1 (strongly disagree) to 7 (strongly agree).

3.6.2 Measurements for Entrepreneurship Education (independent variable).

Entrepreneurship Education was operationalized using two dimensions—opportunity identification and entrepreneurial knowledge—using 10 items (Puni *et al*., 2018a). Items were measured on a five-point Likert scale; however, this study measured the items on a seven-point Likert scale from 1 (strongly disagree) to 7 (strongly agree)

because the respondents in the study (students) are unfamiliar with surveys and would be confused if two separate response scales were employed (Puni *et al*., 2018a).

As a result, the decision to use the same response scale was made to make it simpler for students to grasp as well as to make data analysis easier. Items for this variable included; "I have learnt several methods to generate basic business ideas", "Education enables me to recognize alternative career options", "Education enables me to identify the characteristics of successful business owners (e.g. risk-taking, proactivity, innovativeness etc.", "Education enhances my ability to better perceive business opportunities in my environment", "Education empowered me to solve economic and social problems in my environments for a fee", "Education gives me a feeling of independence", "Education increases my awareness of the different forms of businesses that I can set-up i.e. Sole proprietorship, partnership", "I have acquired the skills, knowledge and competencies needed to establish, develop and manage a new business", "Trainings increase my awareness of the duties and rights of self-employed and their commitment to their stakeholders" and "Education has enhanced my understanding of the different sources I can obtain funding to start a new business".

3.6.3 Measurements for Entrepreneurial Attitude (mediator variable)

Entrepreneurial Attitude was measured by adapting and modifying semantic differential items that assess attitudes that were developed (Ajzen, 2013; Hennessy, Bleakley, & Fishbein, 2012). All statements were anchored on a 7-point Likert scale. The universal statement was, "To me, being an entrepreneur could be...." Endpoints for semantic differentials included not enjoyable–enjoyable, important –not important satisfying – not satisfying, successful failure, and harmful-beneficial.

3.6.4 Measurements for Entrepreneurial Self-efficacy (moderator variable).

Entrepreneurial self-efficacy was operationalized using De Noble, Jung, and Ehrlich's (1999); Shook & Bratianu (2010) 17 questions, which were modified to fit the study context. These items include; "I can work productively under continuous stress, pressure, and conflict", "I can originate new ideas and products.", "I can develop and maintain favorable relationships with potential investors", "I can see new market opportunities for new products and services.", "I can recruit and train key employees.", "I can develop a working environment that encourages people to try out something new.", "I can tolerate unexpected changes in business conditions.", "I can react quickly to take advantage of business opportunities.", "I have the required skills to engage in start-up activities " and " I understand what it takes to start my own business".

3.6.5 Measurement of covariates

The covariates of the study are age, gender, institution, parents' or guardians' career, and program. The variables were measured as dummy variables except for age. The age was measured in four categories according to age bracket and was coded as shown below 20 (1), 20–25 (2), 26–30 (3), and above 30 (4). Males were coded 1, and females were designated 0. The careers of parents or guardians were coded 1 if yes and 0 if no. The offered program was coded 1 for business and 0 for non-business.

Table 3.2: Summary of measurement of the variable

Variable	Type of variable	No. of items	Reference to Questionnaire part	Source	Type of measurements
Entrepreneurial Intentions	Dependent Variable	10	Section A Part 1	Liñán & Chen, 2009 and Kim-Soon *et al.,* 2014	7 points Likert scale transformed arithmetically
Entrepreneurship Education	Independent Variable	10	Section A Part 2	Puni *et al.,* 2018	7 points Likert scale transformed arithmetically
Entrepreneurial Attitude	Mediating Variable	12	Section A Part 3	(Ajzen, 2013; Hennessy *et al.,* 2012)	7 Likert scale transformed arithmetically
Entrepreneurial self-efficacy	Moderating Variable	17	Section A Part 4	De Noble *et al.,* 1999 and Shook & Bratianu, 2010	7 points Likert scale transformed arithmetically
Demographic Factors	Control Variables	4	Section B		Nominal scale

3.7 Research Instrument

The instrument was organized into two major sections, A and B. Section A entailed measurement items relating to the study variables, while Section B entailed demographic information concerning the study respondents. Section A was further divided into four parts: Part I entailed ten items concerning Entrepreneurial intentions; Part II contained ten items on Entrepreneurship education; Part III had twelve items about Entrepreneurial Attitude, and Part IV provides seventeen items about Entrepreneurial self-efficacy. Section B consists of demographic profiles of respondents in terms of gender, age, program, and parents' or guardians' careers.

The questionnaire contained structured questions relating to each study variable, and items were measured on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) as responses from students. Sample items for measuring Entrepreneurial Intentions were "I have a strong belief to become an entrepreneur, "I am determined to create a firm in the future," and "I prefer to be an entrepreneur rather

than to be an employee in a company" while for Entrepreneurship Education included; "I have learned several methods to generate basic business ideas", "education enables me to recognize alternative career options", "I have acquired the skills, knowledge, and competencies needed to establish, develop and manage a new business". Items for measuring entrepreneurial attitude; "being a business owner implies more advantages than disadvantages", "having my own business implies more advantages than disadvantages" (Solesvik *et al*., 2012), and Entrepreneurial self-efficacy items included; "I can work productively under continuous stress, pressure, and conflict", "I can develop and maintain favorable relationships with potential investors" (De Noble *et al*., 1999).

The participants were accessed by the researcher through making appointments with the respective lecturers, who reserved time for the researcher before the lecture started or towards the end of the lecture, such that respondents were identified and questionnaires were distributed. This was done in all of the selected institutions until the data collection process was completed. However, this was done after getting permission from institution authorities (see Appendix IV).

3.8 Reliability and Validity

Validity is the degree to which a variable is accurately measured in a quantitative investigation. (Heale & Twycross, 2015). Validity refers to how well the information gathered is relevant to the investigation (Scott & Bruce, 1995). Validity means that the instrument "measures what is intended to be measured." Validity is the degree to which a tool measures what it claims or is intended to measure (Kimberlin & Winterstein, 2008; Tavakol & Dennick, 2011). This was obtained by developing the scales with the help of experts and using measures that were used in the previous studies. The pilot

study was conducted at Kisii University to conduct factor analysis as a way of validating the instrument before data is collected.

3.8.1 Face Validity

This is a subjective assessment of a construct's operationalization (Taherdoost, 2016b). Face validity is the degree to which a measure appears to be related to a given construct in the eyes of non-experts (Chabrol *et al*., 2005). Face validity is a simple assessment of the instrument by focusing on feasibility, ease of reading, style and formatting uniformity, and the clarity of words employed. Face validity, in other words, refers to researchers' subjective judgments of the measuring instrument's presentation and relevance, such as whether the items in the instrument appear to be relevant, rational, clear, and unambiguous (Taherdoost, 2016b). This was attained through the use of expert evaluations and a pilot study to validate the instrument as recommended by Lam, Hassan, Sulaiman, & Kamarudin (2018).

3.8.2 Content validity

Content validity is the extent to which items in a questionnaire reflect the content universe to which it will be generalized (Taherdoost, 2016b). In research, it is highly advised to test for content validity, especially while developing an instrument. Content validity is the process of evaluating a new survey instrument to ensure that it contains all of the necessary items while excluding those that aren't relevant to a given construct domain (Kimberlin & Winterstein, 2008). Content validity is primarily established through the judgmental approach (Taherdoost, 2016b). Here, the researcher exhaustively reviewed the literature to extract the items, and thereafter, the instrument was made available to seven experts in this area for evaluation. The test involved giving the questionnaire to seven different experts to determine the appropriateness of the items to capture study variables on a scale starting from relevant to irrelevant. From the

scores, the following formula was used to calculate the Content Validity Index (CVI). Results indicate that all study variables are valid since their CVI scores are above the recommended cut-off of 0.70 (Field, 2010); see table 3.3 below.

$$CVI = \frac{\text{Number of items rated relevant}}{\text{Total number of the item}} \; x \; 100\%$$

Table 3.3: Content Validity Index

Variable	CVI
Entrepreneurial intentions	0.90
Entrepreneurship education	0.74
Entrepreneurial attitude	0.88
Entrepreneurial self-efficacy	0.86

Source: Research Data (2020)

3.8.3 Construct Validity

Construct validity is the extent to which a research tool assesses the targeted construct (Heale & Twycross, 2015). The operationalization of a construct is determined by how well the researcher translates it into a working and operating reality (Taherdoost, 2016b). Construct validity is established by gathering data in six forms of validity: face validity, content validity, concurrent and predictive validity, and convergent and discriminant validity (Trochim, 2006). To test for construct validity, factor analysis was employed for all items of the study variables.

3.8.4 Criterion or concrete Validity

A criterion is any other instrument that assesses the same variable (Heale & Twycross, 2015). A measure's criterion validity is how well it predicts the outcome of another measure (Taherdoost, 2016b). Criterion validity was assessed in three ways: (1) Convergent validity indicates that an instrument's performance is significantly correlated with that of other instruments measuring similar variables. (2) Divergent

validity denotes a lack of correlation between an instrument and other instruments that measure different variables. The extent to which the multiple instruments measure the same variable was determined through correlations. (3) Predictive validity—means that the instrument should have high correlations with future criteria (Heale & Twycross, 2015). Predictive validity was determined by performing a regression analysis.

3.8.5 Reliability

Reliability is the consistency of a research tool (Taherdoost, 2016b). To put it another way, the degree to which a research instrument consistently produces the same results when employed in the same circumstances over and over again (Heale & Twycross, 2015) Reliability is the degree to which measurements of a concept produce stable and consistent results (Gliem & Gliem, 2003). The term "reliability" also refers to the ability to repeat anything. For example, a scale or test is said to be dependable if it produces consistent findings when measured repeatedly under the same conditions (Taherdoost, 2016b). When the items on a scale "hang together" and measure the same construct, it is considered to have high internal consistency and is therefore dependable (Tavakol & Dennick, 2011). When carrying out research, it's critical to think about the validity and reliability of the data collection tools.

Cronbach's alpha coefficient is the most objective and widely used internal consistency statistic (Tavakol & Dennick, 2011). When using the Likert scale, is regarded as the most accepted measure of dependability (Mohajan, 2017). However, there are no definitive rules for internal consistency. For example, Zikmund *et al*. (2013) posit that alpha coefficients ranging from 0.80 to 0.95 suggest extremely good reliability, 0.70 to 0.80 indicate high reliability, 0.60 to 0.70 suggest acceptable reliability, and less than 0.6 suggest poor reliability. According to Nunnally (1978), alphas of.60 or higher are

appropriate for newly constructed scales. The majority of researchers, however, agree

on a minimal internal consistency coefficient of 0.70 (Taherdoost, 2016b). It's worth

noting that an instrument's validity is inextricably linked to its reliability. A tool can't

be valid without being reliable; nevertheless, an instrument's reliability is independent

of its validity (Tavakol & Dennick, 2011). Reliability is vital for research, but it isn't

sufficient until it's accompanied by validity. To put it another way, for a test to be

dependable, it must also be legitimate (Varni, Limbers, Bryant, & Wilson, 2010).

3.8.6 Pretesting Results

A pre-test was carried out at Kisii University's Eldoret campus, where 80 undergraduate

finalists were considered for the study. Under reliability, all variables had a Cronbach's

alpha above 0.7, which meets the minimum threshold as recommended by Taherdoost

(2016a; Zikmund *et al.*, 2013), except for entrepreneurial education, which had a

Cronbach's alpha of 0.698. However, when the items "I have learned several ways of

coming up with a business idea" and "Education gives me a feeling of independence"

were deleted, Cronbach's alpha improved from 0.687 to 0.708 (see table 3.4 below):

Table 3.4: Pilot Results

Variables	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
Entrepreneurial Intentions	0.763	0.769	10
Entrepreneurship Education	0.706	0.708	8
Entrepreneurial Attitude	0.835	0.832	11
Entrepreneurial Self-efficacy	0.857	0.858	17

Source: Primary Data (2020)

3.9 Testing Assumptions of Multiple Regression

Testing for regression assumptions was done before running regression analysis, and it

will be done again to ensure that, before subjecting data to parametric tests, the

following assumptions are met: If the assumptions for regression are not met, the results

will be invalid. These assumptions include normality, linearity, homoscedasticity, and multicollinearity. According to Casson and Farmer (2014), if all the assumptions are met, estimates of the beta parameters will be good. These assumptions will be tested as discussed below:

3.9.1 Normality test

The normal distribution is a major assumption in regression models. According to Tabachnick and Fidell (2001), correlations can be distorted when variables are non-normal. The test of normality was done using Kurtosis, the Skewness test, plots, and the Shapiro-Wilk test. Normality holds that the distribution of the test is bell-shaped with a zero mean and one standard deviation (Casson & Farmer, 2014). This assumption of normality was checked by determining whether the residuals of variables are normally distributed. Histograms and scatter plots of residuals versus anticipated values were used to test for normality. Even with small data sets, if the errors are from a normal distribution with a zero mean and constant variance, the coefficient estimates are guaranteed to have a normal distribution and will behave well in statistical hypothesis testing.

Correlations and significance tests can be distorted by non-normally distributed variables (highly skewed or kurtotic variables, or variables with significant outliers). The researcher can test this assumption using a variety of methods, including visual inspection of the histograms, P-P plots, kurtosis, and skewness, which provide inferential statistics on normality. Outliers can be identified by looking at histograms or looking at frequency distributions (Tabachnick & Fidell, 2001). Outliers increase the likelihood of Type I and Type II errors as well as the precision of estimates (Osborne & Waters, 2002). The assumption that error terms are normally distributed is useful

because it allows us to infer regression parameters of a sample on the population (Williams, Grajales, & Kurkiewicz, 2013).

3.9.2 Transforming from non-normal to normal data

Rarely do researchers attain a statistically normal distribution of the data; to make matters worse, it's very difficult, if not impossible, to achieve perfect normality (Casson & Farmer, 2014; Templeton, 2011). In this study, the research established that the distribution was skewed to the left (negatively skewed), meaning most scores were at the left end. In the case of non-normal data, but many parametric statistical tests assume normally distributed scores, researchers have two options: the first is to avoid parametric statistics like Pearson correlation and Analysis of Variance in favor of non-parametric alternatives like Spearman's rho and Kruskal-Wallis tests (Tabachnick & Fidell, 2001). However, Tabachnick and Fidell (2001) argue that non-parametric techniques are less robust. This indicates that even where differences or correlations exist, one may not be in a position to detect them (Mertler & Reinhart, 2016).

The other option is to transform the study variables from a non-normal distribution to a normal distribution. According to Osborne and Waters (2002), this is a try-and-error approach since different transformation types exist (logarithm, square root, inverse, and fractional rank method). The fractional rank method was found appropriate for the study distribution, as recommended for negatively skewed distributions (Pallant, 2011; Templeton, 2011). This is a two-step approach that provides the best standard for attaining statistically acceptable skewness, kurtosis, and a bell-shaped histogram and uses observed variables (Hair, Anderson, Tatham, & Black, 2006; Templeton, 2011).

The first stage is to calculate the percentile or fractional rank of each score to statistically uniformize the original variable. This is done by utilizing the fraction rank

option under the transform function, and a new variable will appear under the variable view whose scores should range between 0 and 1 for the data to be uniform. This step follows the formulas below:

Percentile Rank = 1 − [Rank (X$_i$) / n]

Where,

Rank (X$_i$) = rank of value X

n = sample size

source: (Templeton, 2011)

The next step involves transforming a uniform distribution into a normal distribution using an inverse normal distribution function. To do so, three arguments are required for the normal-inverse function under the numerical function. These include: (1) a probability (the variable created in step 1), the mean (μ) of the resultant variable, and the standard deviation. The formula behind these computations in SPSS is presented below:

$$P = \mu + \sqrt{2}\sigma erf^{-1}(-1+2\text{Pr})$$

Where,

P	=	Z-score resulting from Step2
μ	=	Mean
σ	=	Standard deviation
erf^{-1}	=	Inverse error function
Pr	=	Probability that is the result of Step1

Sources: (Templeton, 2011)

3.9.3 Linearity test

Multiple regressions assume a linear relationship must exist if one is to correctly determine the correlation between the predicted and predictor variables (Osborne & Waters, 2002). The model that connects the predicted Y (Entrepreneurial Intentions) to the predictors X1 (entrepreneurship education), X2 (entrepreneurial attitude), and X3

(self-efficacy) is assumed to be linear in nature (Williams *et al.*, 2013). The outcome variable is supposed to be a linear function of the parameters (Osborne & Waters, 2002). When tests reveal a linear relationship between the predictor and the explained variables, this assumption is met.

It has also been noted that the non-linear correlation between the predictor variable and the outcome variable increases the risk of a type 11 error with the regression output because the true association will be underestimated. This assumption will be tested using correlations among variables and P-P plots (Osborne & Waters, 2002). These are the most common methods for detecting nonlinear patterns in the data (Hair *et al.*, 2006). It's critical to accurately specify the correlation because if the correlation is wrongly specified as linear yet non-linear, the regression analysis results will not fit the data as well as they could (Ernst & Albers, 2017).

3.9.4 Homoscedasticity tests

This regression assumption presumes that the error term variance is the same for any combination of the predictor variable values (Ernst & Albers, 2017). That is a constant variance, or the relationship is constant for the entire range of the dependent variable. According to Osborne and Waters (2002), heteroscedasticity is reported when the variance for the errors varies across predictor variable values. This means that the homoscedasticity assumption is violated. Violation of this assumption is referred to as "heteroscedasticity," which can lead to misleading results and also increases the likelihood of type 1 error occurring (Ernst & Albers, 2017). Therefore, the inference process will be untrustworthy. To check for heteroscedasticity, several methods may be used. The methods are both graphical and non-graphical, and this study adopted Leven's statistical test (Mertler & Reinhart, 2016). The decision rule was based on the level of significance of Leven's statistical values (Ernst & Albers, 2017). Where the p-

values are greater than 0.05 (non-significant), homogeneity of variance is reported, and where the p-values are less than 0.05, the heteroscedasticity problem is reported (Williams *et al*., 2013). According to Osborne and Waters (2002), in such circumstances, data would not be subjected to further analysis like hypothesis testing before being treated.

3.9.5 Multicollinearity

Collinearity simply means the correlation between two predictor variables or Multicollinearity refers to the presence of high correlations between the predictors, that is, strong associations between two or more predictors (Williams *et al*., 2013). When two or more predictor variables in a multiple regression model are strongly related, this is known as multi-collinearity. Multicollinearity results in shaky coefficient estimates for the individual predictors. That is, the coefficient estimates' standard errors and confidence intervals will be inflated (Ernst & Albers, 2017).

The degree to which multi-collinearity is a concern is dependent on the analysis goals. Where prediction of the response variable is the purpose of the research, multi-collinearity is not a significant impediment. Multi-collinearity is more problematic in this study because it is aimed at making inferences about population parameters. Although several other diagnostic methods are available, the variance inflation factor and tolerance are more popular measures of multicollinearity (Williams *et al*., 2013). In this regard, multi-collinearity will be tested using tolerance and the variance inflation factor. The acceptable tolerance values are that they should be greater than 0.20, while the values for the variance inflation factor (VIF) should not be more than 5 (Stevens, 2002).

3.10 Common Method Biases

Common method bias means the variance explained by the method of measurement other than the constructs the measures represent (Chang, Van Witteloostuijn, & Eden, 2010). These variances represent a serious challenge to research since they are a major source of measurement error, thus threatening the accuracy of determining the correlations between constructs. By artificially inflating or deflating correlations, common method variance introduces systematic bias into a study, potentially invalidating the conclusions drawn about construct inter-correlation. Inflated correlations as a result of CMV may cause regression estimates to converge at a higher value than their true population value, potentially leading to a type I error. Furthermore, deflation makes it difficult to detect a relationship if it exists and would lead the study into committing type II errors.

The challenges posed by common method bias necessitate that researchers be aware of how their data collection procedures and research designs can contribute to CMV, as well as the potential solutions to the problem. According to Podsakoff, MacKenzie, Lee, and Podsakoff (2003), among the possible causes of common method bias are self-reported impacts, inconsistencies, leniency biases, context-induced moods, social desirability, common scale factors, and item ambiguity.

The study controlled for common method variance both before and during data collection. Before data collection, the study followed the recommendation by Conway and Lance (2010) that researchers can rule out significant methodological biases by ensuring that the measures used demonstrate high construct validity. This was considered in this study, and it was attained by carrying out an extensive literature review to ensure that adequate items relating to the constructs were captured. During data collection, the independent variable was separated from the dependent variable by

conducting two surveys; the first survey involved collecting data about the independent variables. The second survey was carried out after two weeks, and data was collected about the dependent variable from the same respondents as the first survey. To ensure that a particular questionnaire is answered by the same participants in both surveys, at the first stage participants were given codes and requested to write their codes on the questionnaire using pencils, which guided the second survey.

3.11 Data Analysis and Presentation

Hypotheses from H01 to H08 were tested following the works of Baron and Kenny (1986), Preacher, Rucker, and Hayes (2007), and Hayes (2012, 2015, 2018), among other related scholars. Inferential statistics were conducted with the statistical model and conceptual model that guided this study. Linear and multiple regression equations were constructed and tested following the hypotheses as elaborated below:

3.11.1 Model 1: Testing for the direct effects

The hierarchical regression model was used to test for the direct effects of H_{01}, H_{02}, H_{03}, and H_{04}. This model helped in explaining the variance in the outcome variable (Entrepreneurial Intentions) that is attributed to the additional predictor variable in the model. The test statistic was computed as the t-test, which gave an output of the coefficient of determination (R^2), the un-standardized beta coefficient (β), p-values, and the t-statistic. The level of significance (p-value) for each variable would be below 5 percent to determine whether the predictor variable significantly influences the outcome variable (Entrepreneurial Intentions) (Whittall & MacKay, 1989). This was guided by the following equations:

$Y = \beta_0 + \beta_1 gender + \beta_2 age + \beta_3 program + \beta_4 parent's\ career + \varepsilon$ …………….…. (i)

Equation one was used in establishing the variance (R2) in the dependent variable (Entrepreneurial Intentions) explained by the control variables.

$$Y = \beta 0 + C + \beta 1X + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(ii) (H01)}$$

Equation two explains the change in R2 which is explained by the additional variable X (an independent variable, which is entrepreneurship education) in the first equation while holding the control variables constant. This equation was used to test for H_{01}.

$$Y = \beta 0 + C + \beta 1X + \beta 2M + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(iii) (}H_{02}\text{)}$$

Equation three was used to test for H02, and this equation explains the change in R^2 after adding the mediator variable (Entrepreneurial Attitude) in the second equation while holding control variables and the independent variable constant.

$$Y = \beta 0 + C + \beta 1X + \beta 2M + \beta 3W + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(iv) (}H_{03}\text{)}$$

Equation four was used to test for H_{03}, and this equation explains the change in R2 after adding the moderator variable (Entrepreneurial self-efficacy) to the third equation while holding the control variables, independent variable, and mediator variable constant. It tells us the variance in the explained variable that is accounted for by the moderator.

To test for the direct effect of the independent variable (Entrepreneurship Education) on the mediator variable (Entrepreneurial Attitude), the following equations were applied:

$$M = \beta 0 + C + \beta 1W + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(v)}$$

Equation five was used to determine the variance in the mediator variable (Entrepreneurial Attitude) explained by the moderating variable (Entrepreneurial self-efficacy).

$$M = \beta 0 + C + \beta 1W + \beta 2X + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(vi) (}H_{04}\text{)}$$

While equation six was used to determine the variance in the mediator variable explained by the independent variable when added to the fifth equation. This equation was used to test for H_{04}.

3.11.2 Model 2: Testing for mediation

To test for the indirect effect (H_{05}) Hayes 2013 model 4 was used following the (MacKinnon, 2012) procedure.
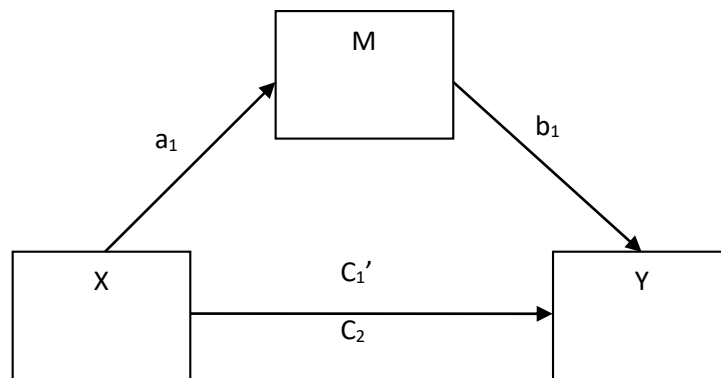
Figure 3.1: The mediation model

According to MacKinnon (2012), the following conditions must be met for mediation to occur;

The first condition is that the predictor variable X (Entrepreneurship Education) must have an effect on the mediator variable M (Entrepreneurial attitude) and this was determined using the equation below;

$$M = a0 + C + a1X + \varepsilon \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \text{(i)}$$

The second condition is that the mediator variable (M) should have a significant effect on the dependent variable Y (Entrepreneurial intentions), as illustrated below:

$$Y = b0 + C + b1M + \varepsilon \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \text{(ii)}$$

The third condition tested the impact of the predictor variable X (Entrepreneurship Education) on Y (Entrepreneurial Intentions) while controlling the mediator (M). However, this condition is optional.

$$Y = C'o + C + b1M + C'1X + \varepsilon \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(iii)}$$

If all of these conditions continue to hold in the predicted directions and are all significant, then partial mediation is reported, while where the predictor on the outcome is not significant and the latter is, full mediation would be reported. By putting the above into consideration, a simplified PROCESS macro (Hayes, 2018) was run to generate an output in this regard for the interpretation of the resulting nature of mediation. This procedure was adopted because it is easier to apply and minimizes the use of multiple techniques that perform a specific function.

With the use of the PROCESS macro, bootstrapping was executed to determine whether mediation had taken place (Preacher & Hayes, 2004). Bootstrapping was executed repeatedly, and in each resample, the desired statistic was computed by randomly sampling observations with replacements from the data set. Bootstrapping provided the researcher with point estimates and confidence intervals to assess the potential significance of the indirect effect. The decision rule was that if zero was not included in the confidence interval of the bootstrapping method, then the researcher would report that there was a significant indirect impact of Entrepreneurial attitude.

Mediation which is H_{O5} was determined by simply obtaining the product of a_1 and $b_1(a_1*b_1)$ or (Total effect – the direct effect)

$$\text{Mediation} = a_1 * b_1 \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(iv)} (H_{05})$$

$$\text{(Total effect)} (C_2) = (a_1*b_1) + C_1' \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(v)}$$

Where;

Y	=	Outcome variable (Entrepreneurial intentions)
X	=	Predictor variable (Entrepreneurship education)
M	=	Mediator variable (Entrepreneurship attitude)
C_2	=	Total effect

$C'1$ =   Direct effect

a_0, C'_0, and b_0 represents Y-intercept (constant)

$C'1$, a_1, and b_1 = the effect of the associated predictor variables on the outcome variable

ε represents the error term

3.11.3 Model 3: Testing for moderation

The conditional analysis is performed to determine whether the influence of the explanatory variable (Entrepreneurship Education) on the explained variable (Entrepreneurial Intentions) depends on another variable (Entrepreneurial self-efficacy) (Hayes, 2012). A moderator variable (Entrepreneurial self-efficacy) separates the causal correlation between the predictor (Entrepreneurship Education) and the predicted variable (Entrepreneurial Intentions) into separate patterns that determine the direction and/or strength of the relationship (Baron & Kenny, 1986). Moderation answers when the independent variable influences the dependent variable (Bucy & Tao, 2007). An interaction between X (Entrepreneurship Education) and the moderator variable (V) (Entrepreneurial self-efficacy), is quantified as the product of X and V. Moderations explain the circumstances under which one variable influences or does not influence the other (Hayes, 2009).

Moderation is said to occur when the strength of the association between Entrepreneurial Education and Entrepreneurial Intentions is dependent on a third variable (Entrepreneurial self-efficacy). Entrepreneurial Self-efficacy (moderator V) interacts with X (Entrepreneurship Education) in predicting Y (Entrepreneurial Intentions) if the regression weight of X on Y varies as a function of V. Moderation is typically assessed with the regression equation (Morgan-Lopez & MacKinnon, 2006; Preacher *et al*., 2007). Entrepreneurial Self -efficacy (V) moderates the correlation

between X and Y for values of V where the confidence intervals are non-zero (Preacher, Curran, & Bauer, 2006; Preacher *et al*., 2007).

Moderation was run using the PROCESS macro (Hayes, 2018) to generate results for interpretation as guided by the discussion above. This was followed by a bootstrapping method to determine whether moderation had taken place or not (Preacher & Hayes, 2004). Bootstrapping is carried out repeatedly, and in each resample, the desired statistic is computed by randomly sampling observations with replacement from the data set. Bootstrap provides confidence intervals, which are a basis for determining the significance of the moderation effect. The moderating impact of V on the association between M and Y was tested using equation one, while equation two was used to determine the conditional impact of V on the correlation between X and Y, as illustrated by the moderation models below:

Path b: $Y = b_0 + b_1M + b_2V + b_3MV + \varepsilon$…………………........……………………….(I) (H_{06})
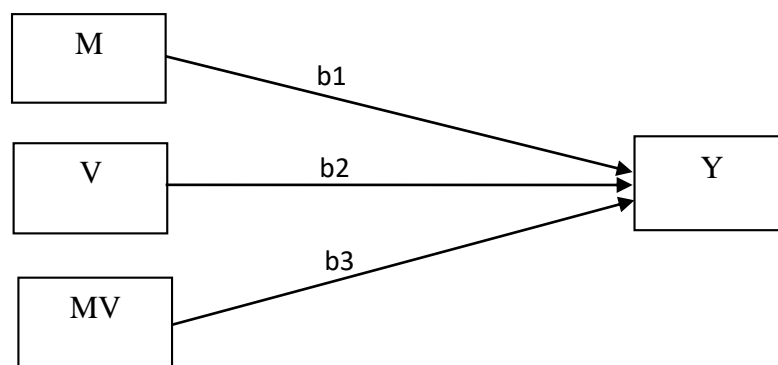
Figure 3.2: Moderating diagram for the moderating influence of Entrepreneurial Self-efficacy between Entrepreneurial Attitude and Entrepreneurial Intentions
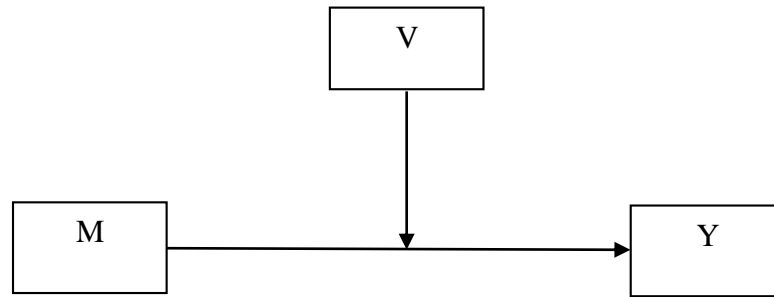
Figure 3.3: Statistical diagram for the conditional impact of Entrepreneurial Self-efficacy between Entrepreneurial Attitude and Entrepreneurial Intentions

Path c; $Y = C'_0 + C + c'_1X + c'_2V + c'_3XV + \varepsilon$ ……………………..…….. (ii) (*H07*)
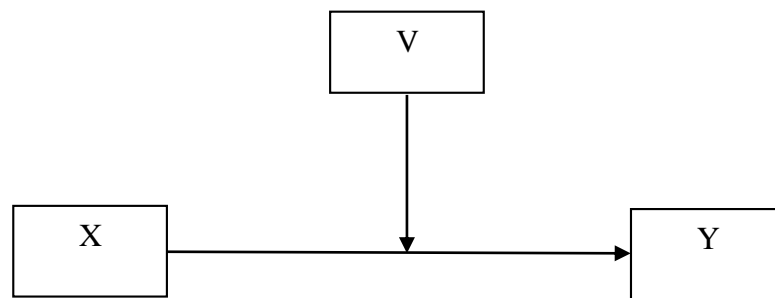
Figure 3.4: Moderating diagram for the conditional impact of Entrepreneurial Self-efficacy between Entrepreneurial Education and Entrepreneurial Intentions
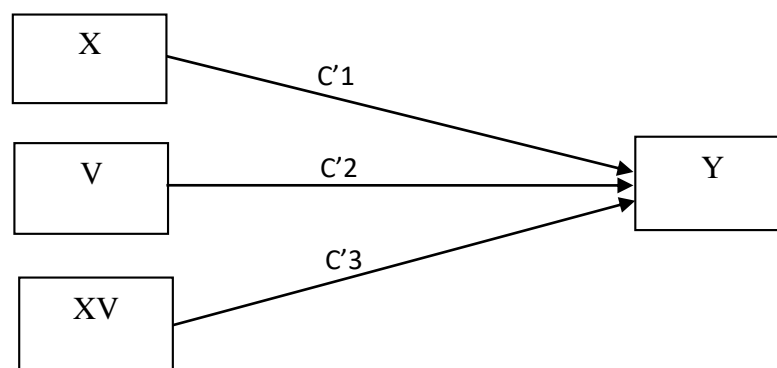
Figure 3.5: Statistical diagram for the conditional impact of Entrepreneurial Self-efficacy between Entrepreneurial Education and Entrepreneurial Intentions
Where;

Y   = outcome variable (Entrepreneurial Intentions)

X   = predictor variable (Entrepreneurship Education)

M   = mediating variable (Entrepreneurial Attitude)

V   = moderator variable (Entrepreneurial self-efficacy)

C   = control variables

b_0 and C'_0 represent the constants

$b_1, b_2, b_3, c'_1, c'_2$, and c'_3= the influence of the   associated predictor variables over the explained variable

ε represents the error term

3.11.4 Model 4: Testing for conditional indirect influence

A mediated impact that varies across levels of a moderator variable is referred to as a "conditional indirect effect" (Hayes, 2015). A conditional indirect impact happens when the strength of an indirect effect depends on another variable or when the indirect influence is dependent on the levels of a moderator (Preacher *et al.*, 2007). Conditional indirect impact occurs when the indirect that produces an impact on the outcome is dependent on the values of a moderator, according to Muller, Judd, and Yzerbyt (2005). Evidence of statistically significant moderation of at least one path in the causal relationship connecting X (the independent variable) to Y (the dependent variable) via M (the mediator variable) supports conditional indirect impact. For any path that is not moderated, there should be evidence that this unmoderated path is statistically different from zero. Just like Baron and Kenny (1986) did for the indirect analysis, Muller *et al.* (2005) established a procedure that must be met to claim that mediation is moderated (Hayes, 2015).

According to Hayes (2012), Muller *et al.* (2005), and Preacher *et al.* (2007), when testing for moderated mediation, it is necessary to first confirm that mediation has taken place between the predictor variable (Entrepreneurial Training) and the predicted variable (Entrepreneurial Intentions). Then moderation will be conducted after confirming that Entrepreneurial Attitude mediates the link between Entrepreneurial

training and Entrepreneurial Intent. Moderated mediation will be tested using Process Macro. The decision rule on H08 will be based on the level of significance of the impact of the moderator (Entrepreneurial self-efficacy) on the mediator (Entrepreneurial Attitude) and the effect of the interaction on the mediator, subject to a 95 percent bootstrap confidence interval. The criterion for accepting or rejecting the moderated mediation hypothesis using process macro is the 95 percent confidence interval. Where the confidence interval generated was inclusive of zero, the decision of no moderated mediation would be reached and the null hypothesis would not be rejected, and where the confidence interval was exclusive of zero, moderated mediation would be confirmed, thus rejecting the null hypothesis (Hayes, 2015).

This process for testing moderated mediation was guided by the works of Hayes (2015, 2018); Muller *et al*. (2005); and Preacher *et al*. (2007). This was done in line with Hayes (2017) who advocated for a practical model that addresses both the HOW and WHEN questions. This study answers the "how" and "when" by adopting Model 15 to analyze the conditional indirect influence of X (Entrepreneurship training) on Y (Entrepreneurial Intents). The decision to test for moderated mediation rather than mediated moderation was guided by (Hayes, 2012; Muller *et al*., 2005) who argued that only when the analysis and process are reframed in terms of moderated mediation, results of mediated moderation interpretation are less meaningful. Therefore, moderated mediation is more applicable than the latter. In this particular study, moderated mediation was interpreted to mean the impact that Entrepreneurial training exerts on Entrepreneurial Intentions through Entrepreneurial Attitude in the presence of Entrepreneurial self-efficacy. The equation used to test for moderated mediation was;

$$Y = (b1+b_{2V}) * a_1 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (i)(H08)$$

Hayes (2012) shows that the conditional influence of X (Entrepreneurship Education) on M (Entrepreneurial Attitude) is derived from $(b_1 + b_{2v})$ and that the effect of M (Entrepreneurial Attitude) on Y (Entrepreneurial Intentions) is b_1, and by extension, the moderated mediation impact of X on Y is $(b_1 + b_2V)$. *a1

Where;

Y = Outcome variable (Entrepreneurial Intentions)

X = Predictor variable (Entrepreneurship Education)

V = Moderator variable (Entrepreneurial self-efficacy)

MV = the product of the interaction of the mediator variable (Entrepreneurial attitude) and the moderator variable (Entrepreneurial self-efficacy)

c_1 represents the effect of the independent variable (Entrepreneurship Education) on the dependent variable (Entrepreneurial intentions)

c_2 = the impact of the moderator variable (Entrepreneurial self-efficacy) on the predicted variable (Entrepreneurial intentions)

c_3 = impact of the interaction of the independent variable (Entrepreneurship Education) and the moderator (Entrepreneurial self-efficacy) on the mediator (Entrepreneurial Attitude)

b_1 = the impact of the mediator variable on the predicted variable (Entrepreneurial Intentions)
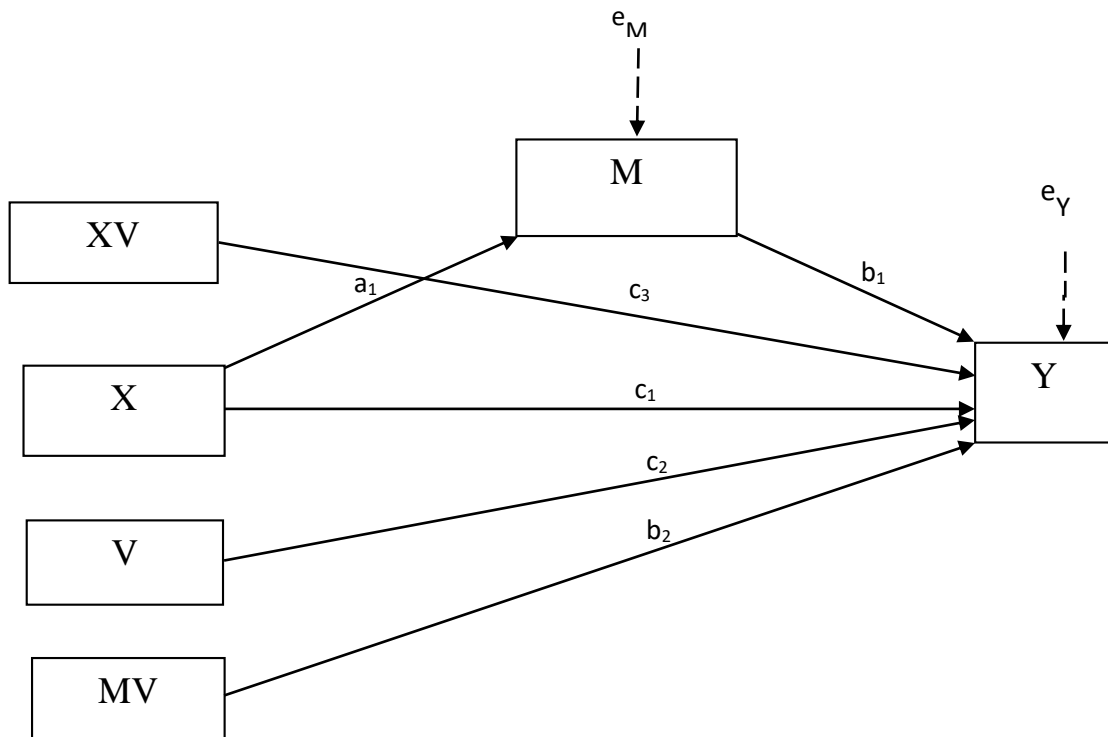
Figure 3.6: Statistical diagram for moderated mediation
Source; (adopted and modified from Hayes, 2013)

Where;

X = predictor variable (Entrepreneurship Education)

Y = Outcome variable (Entrepreneurial intentions)

M = mediator variable (Entrepreneurial Attitude)

V = moderator variable (Entrepreneurial self-efficacy)

MV = product of the interaction of the mediator (Entrepreneurial attitude) and the moderator variable (Entrepreneurial self-efficacy)

XV = product of the interaction of the predictor variable (Entrepreneurship Education) and the moderator variable (Entrepreneurial self-efficacy)

a_1 = impact of the predictor variable (Entrepreneurial Training) on the mediator (Entrepreneurial Attitude)

b_1 = impact of the mediator (Entrepreneurial Attitude) on the outcome variable (Entrepreneurial intentions)

c_3 = interactive impact of the predictor variable (Entrepreneurial training) and the moderator (Entrepreneurial self-efficacy) on the outcome variable (Entrepreneurial Intentions)

c_1 = impact of the predictor variable (Entrepreneurial training) on the outcome variable (Entrepreneurial Intentions)

c_2 = impact of the moderator variable (Entrepreneurial self-efficacy) on the outcome variable

e_M and e_Y; represent the respective error terms in each of the equation

3.12 Hypotheses Testing

The study hypotheses were tested using different test statistics. For instance, the direct effects of H_{01}, H_{02}, H_{03}, and H_{04} were tested using hierarchical regression analysis. The decision to reject a hypothesis or not was guided by two test statistics: t-statistics (t) and levels of significance (p-values). A hypothesis is deemed significant where t-values are greater than ±1.96 and where p-values are less than 0.05 (Hair *et al*., 2006). In such circumstances, the null hypothesis was rejected, and where t-values were less than ±1.96 and p-values greater than 0.05, the null hypothesis was not rejected.

For the interactions (H_{05}, H_{06}, H_{07}, and H_{08}), test statistics used included the t-statistic (t), level of significance (p-values), and bootstrapped confidence intervals. Just like under the direct effects, the decision rule concerning t-statistics and p-values remains the same. Regarding the bootstrapped confidence intervals, the output produced both the lower limit confidence interval (LLCI) and upper limit confidence interval (ULCI). The decision rule holds that the confidence interval should be non-zero for the hypothesis to be significant (Preacher *et al*., 2007). For example, the upper and lower limit confidence intervals should both be either negative or positive (Hayes, 2018). Where one was positive and the other was negative, the null hypothesis was not rejected (see table 3.5 below).

Table 3.5: Hypotheses Testing

	Hypotheses	Tool	Conclusion
H_{01}	Entrepreneurship Education has no significant effect on Entrepreneurial Intentions	t, p-values	Reject H_{01} if t $\geq \pm1.96$ and P-v ≤ 0.05 and don't reject if P-v> 0.05 and t $<\pm1.96$
H_{02}	Entrepreneurial Attitude has no significant effect on Entrepreneurial Intentions	t, p-values	Reject H_{02} if t $\geq \pm1.96$ and P-v ≤ 0.05 and don't reject if P-v> 0.05 and t $<\pm1.96$
H_{03}	Entrepreneurial self-efficacy has no significant effect on Entrepreneurial Intentions	t, p-values	Reject H_{03} if t $\geq \pm1.96$ and P-v ≤ 0.05 and don't reject if P-v> 0.05 and t $<\pm1.96$
H_{04}	Entrepreneurship Education has no significant effect on entrepreneurial attitude	t, p-values	Reject H_{04} if t $\geq \pm1.96$ and P-v ≤ 0.05 and don't reject if P-v> 0.05 and t $<\pm1.96$
H_{05}	Entrepreneurial Attitude has no mediating effect on the relationship between Entrepreneurship Education and Entrepreneurial Intentions	CI	Reject where CI is none zero and fail to reject where zero was inclusive
H_{06}	Entrepreneurial Self-efficacy has no moderating effect on the relationship between Entrepreneurial Attitude and Entrepreneurial intentions	t, p-v, CI	Reject where CI is none zero and fail to reject where zero was inclusive
H_{07}	Entrepreneurial Self-efficacy has no moderating effect on the relationship between Entrepreneurship Education and Entrepreneurial Intention	t, p-v, CI	Reject where CI is none zero and failed to reject where zero was inclusive
H_{08}	Entrepreneurial self-efficacy has a conditional indirect effect on the relationship between Entrepreneurship Education and Entrepreneurial Intentions through entrepreneurial attitude	CI	Reject where CI is none zero and failed to reject where zero was inclusive

3.13 Ethical Considerations

The researcher ensured that appropriate ethical behavior was observed throughout the process of this study. An introduction letter was obtained from the School of Business and Economics as a confirmation to authorities (the National Council for Higher Education and university management) that this study was academic. This was the basis for seeking permission to carry out this study at the respective universities. First,

authorization was obtained from the National Council for Higher Education (see Appendix 11). This letter introduced the researcher to the respective universities, and this was the basis for securing permission from each university (see appendix). During data gathering, students were assured of privacy and confidentiality regarding the data they provided to the researcher. This was done by assuring the respondents that the information they filled in would not be shared with or disclosed to any other party other than for the study's purposes. On the questionnaires, respondents were not required to write their names but rather use codes.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, INTERPRETATION, AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter presents the data analysis process, interpretation, and discussion of findings concerning the research hypotheses. The chapter entails several subsections such as response rate, data preparation, and screening, participants' demographic profiles, factor analysis, correlation, regression analysis, interactions between the study variables as well as discussions of results.

4.1 Response Rate

Given that two surveys were conducted by separating the independent variables from the dependent variable. In the first survey, 458 questionnaires about the independent variables were distributed, and a 100% response rate was recorded. However, 04 questionnaires were not properly filled and were eliminated in the second survey. Therefore, 454 questionnaires were distributed in the second survey. The second survey was carried out after two weeks, and data was collected about the dependent variable from the same respondents of the first survey. Out of four hundred fifty-four (454) questionnaires that were distributed, 59 questionnaires were not filled. This is because by the time of the second survey 59 respondents who had participated in the first survey were not accessible, thus 87% of the students responded. This good response rate is because questionnaires were physically distributed to students in their lecture halls before the commencement of their lectures. 07 were outliers and according to Crothers, Schreiber, Field, and Kolbert (2009) outliers should be eliminated from the analysis because they increase the likely hood of type I and II errors (Osborne & Waters, 2002). Thus, were excluded from the final analysis leaving 388 (84.72%) usable

questionnaires. The study's response rate is considered good because according to Baruch and Holtom (2008) a minimum response of 70% should be attained for individual-level surveys.

4.2 Data Preparation and Screening

After data collection, all the questionnaires were screened to detect all possible errors like missing values, unanswered questionnaires, and partly answered questionnaires. This was done following the guidelines of (Tabachnick & Fidell, 2013). Thereafter, the completed questionnaires were coded with numbers to ensure systematic data entry. This also ensured that all the questionnaires were catered for and following the recommendation by Enders (2010) only questionnaires with large missing data over 10 percent were not included in the analysis. After data entry, the researcher also checked for errors that would have been made during the process of data entry. This was done by running descriptive statistics to determine the minimum and maximum scores for each item. For responses where scores were outside the range of 1 to 7, the questionnaire was revisited for error rectification.

4.2.1 Missing data

Missing values were identified by running frequencies for all questionnaire items and control variables. Results in table 4.1 below reveal that 16 missing cases were detected. Questionnaires with one case were 8 (1.75 percent) and 2 cases were 4 (0.87 percent). Four questionnaires had large missing values and were eliminated from the analysis following the recommendation by (Enders, 2010) that questionnaires with above 10 percent missing values should be removed from the analysis. This leaves a total of 388 (83 percent) questionnaires that were fully answered. Thus, only 2.62 percent of the questionnaires had missing values. It was also found that the missing values occurred

randomly since missing data was not systematic. This low rate of missing cases is attributed to the ample time given to respondents and after answering the questionnaire, participants were requested to proofread to ensure that all items were answered.

Table 4.1: Distribution of the Number of Missing Values on Cases

Number of missing values	Number of cases	Percentage
0	383	83.62
1	8	1.75
2	4	0.87
Total	**395**	**86.24**

Source: Research Data (2020)

Subsequently, missing values were further assessed concerning study variables as shown in table 4.2 below. It's revealed that out of the 49 variables 35 variables did not have missing values while 14 had few missing values. Particularly, 12 variables had a single missing value and one variable had double missing values. These were considered useful and were included in data analysis. These few missing values were treated following the recommendations of (Tabachnick & Fidell, 2013) that is replacing them using the mean value computation method.

Table 4.2: Distribution of the Number of Missing Values by Variables

Number of missing values	Number of variables	Percentage
0	35	71.42
1	12	24.49
2	2	4.08
Total	**49**	**100**

Source: Research Data, (2020)

4.2.2 Outliers

The statistical analyzes utilized in this study are sensitive to extreme values. Outliers are cases with values that are significantly higher or lower than the majority of the cases (Gravetter & Wallnau, 2000; Stevens, 2002). Outliers can have a dramatic effect on any statistical tests as they make results higher than they would be, and in some situations, they result in an underestimation of the true results (Hair *et al*., 2006). To

be specific, outliers distort results and make generalizability to the study population difficult (Hair *et al.*, 2006; Tabachnick & Fidell, 2013). Therefore, outliers are worth checking to determine whether they were data entry errors or true outliers. These were checked and corrected, for example, 66 was entered instead of 6 for case 210 item EI4.

This study employed the Mahalanobis distance measure to identify and deal with multivariate outliers (Tabachnick & Fidell, 2001, 2013). Handling multivariate outliers, also took care of the problem of univariate outliers, and treating univariate outliers would not take care of multivariate outliers (Gonzalez, 2003). Outliers were checked by looking at the Mahalanobis distances that the multiple regression programs generated. This appeared as an extra variable at the end of the data file (Mah 1). A critical chi-square value was calculated using the number of independent variables (3) as the degrees of freedom to determine which cases were outliers. An alpha level of .001 was adopted as recommended by (Tabachnick & Fidell, 2001, 2013).

Therefore, cases with probability Mahalanobis D^2 values of below 0.001 were multivariate outliers and were eliminated from the data file. Further, Tabachnick and Fidell (2001) suggest that multivariate outliers can be identified by inspecting Mahalanobis distance values and for a study with three predictor variables, the critical value is 16.27 (see: Tabachnick & Fidell, 2001, Table C.4), thus any case with Mahalanobis values above 16.27 was an outlier and were eliminated from the data set following the recommendations of (Crothers *et al.*, 2009; Tabachnick & Fidell, 2001; Tabachnick, Fidell, & Ullman, 2007). This left the maximum Mahalanobis value at 15.77 and the minimum at .023.

4.3 Respondent's demographic profile

This section presents participants' demographic profiles in terms of age, gender, program, and parent's/guardian's career. These factors were controlled during data analysis because they could influence the study variables.

4.3.1 Respondents' Age

Table 4.4 below presents that the vast majority of those who responded 88.9 percent were in the age bracket of 20-25, followed by 26 – 30 who were 9.3 percent, then above 30 years at 1 percent, and finally, only 0.8 percent below 20 years. This means that most of the respondents were admitted under direct entry and only a few pursued university education under mature entry programs. Thus, few students have business experience or exposure.

4.3.2 Respondents' Gender

Regarding gender, the majority of the respondents 50.8% were females while 49.2% were male. The high number of females than males could be attributed to the "educate the girl child" campaign in Uganda. In comparison to their male counterparts, more women are getting opportunities to enroll in university education in the country due to affirmative action of 1.5 points given to the girl child.

4.3.3 Respondents' program

Concerning the program offered, the majority of the students 72.2 percent offered business programs while 27.8 percent offered non-business programs. This could be attributed to the high number of students offering arts subjects at the high school level and generally the high cost of doing sciences. These findings indicate that the vast majority of the respondents have received some form of business education

4.3.4 Respondents' parents'/guardian's career

Lastly, Table 4.3 shows that most of the student's parents or guardians 62.6 percent are self-employed and only 37.4 percent are employed. The high level of parents' engagement in entrepreneurship could be attributed to the high unemployment rate in the country and also government efforts to promote entrepreneurship among Ugandans. As a result, the majority of respondents are likely to have been exposed to the business world through their parents or guardians.

Table 4.3: Respondents' demographic characteristics

Variable	Factor	Frequency	Valid percent
Gender	Female	197	50.8
	Male	191	49.2
	Total	**388**	**100.0**
Age	Below 20 years	3	.8
	20 - 25 years	345	88.9
	26 - 30 years	36	9.3
	Above 30 years	4	1.0
	Total	**388**	**100.0**
Program	Non-business	108	27.8
	Business	280	72.2
	Total	**388**	**100.0**
Family background	Employed parents/guardian	145	37.4
	Self-employed parents/guardian	243	62.6
	Total	**388**	**100.0**

Source: Research Data (2020)

4.4 Study Variable Descriptive Statistics

Descriptive statistical analysis was employed to explain the nature of the data under the study, which consisted of respondent responses to the variables under investigation. Descriptive involves minimum, maximum, mean, standard deviations, skewness, and kurtosis. Minimum was used to measure the lowest score while maximum measured the highest score on a 7-point Likert scale. Mean was utilized to measure the average score by the entire sample on a particular variable while the standard deviation was

used as a measure of dispersion to determine how far the responses varied from the mean. Skewness and Kurtosis were then used to determine normality (Tabachnich & Fidell, 2007).

4.4.1 Descriptive statistics for Entrepreneurial Intentions

On a seven-point Likert scale, participants were asked to rate their degree of agreement with statements describing Entrepreneurial Intentions. Descriptive statistics in table 4.4 below indicate that all statements had a minimum of 1 and a maximum of 7 except where respondents were asked whether they will undertake all efforts to start and run their businesses had a minimum score of 2. The study findings also demonstrated that respondents generally agreed with all statements concerning entrepreneurial intentions since the mean was approximately 6 for all items and the standard deviation ranged between 1 and 1.5. For instance, when participants were asked whether they are ready to do the needful to start up their businesses, findings showed that respondents agreed with this statement (mean=5.95, SD=1.508). Similarly, students showed a strong intention to start their businesses after completing their studies (mean=5.98, SD=1.262).

Table 4.4: Descriptive statistics for Entrepreneurial Intentions

Item	Min	Max	Mean	SD	Skewness	Kurtosis
I am ready to do the needful to start up my own business	1	7	5.95	1.508	-1.698	2.310
I will make every effort to start and run my own business	2	7	6.25	1.036	-1.699	3.117
I am determined to create a firm in the future	1	7	5.96	1.357	-1.568	2.320
I have very seriously thought of starting a firm	1	7	5.87	1.384	-1.328	1.410
I have a strong belief to become an entrepreneur	1	7	6.36	1.044	-2.163	5.398
I intend to start a firm within five years of graduation	1	7	5.24	1.577	-.825	.071
I prefer to be an entrepreneur in my expertise	1	7	6.10	1.305	-1.845	3.445
I have a strong intention to start my own business after completing my studies.	1	7	5.98	1.262	-1.461	2.092
I prefer to be an entrepreneur rather than to be an employee in a company	1	7	6.14	1.295	-1.836	3.308
I am delighted to face the challenges of creating a new business	1	7	5.93	1.299	-1.455	1.925

Source: Research data (2020)

4.4.2 Descriptive statistics for Entrepreneurship Education

Participants were asked to rate their degree of agreement with different statements about entrepreneurial training on a seven-point Likert scale. The replies were summarized using descriptive statistics such as mean and standard deviation, as shown in Table 4.5 below. Findings reveal that many of the students agreed entrepreneurship education has equipped them with several methods to generate basic business ideas as shown by a mean of 5.63 and a standard deviation of 1.376. They also acknowledged that entrepreneurship education helped them see entrepreneurship as a viable career option mean = 6.01 and standard deviation = 1.149. I've gained the skills, information, and abilities required to start, grow and manage a new firm with a mean of 5.78 and a standard deviation of 1.206. They also recognized that entrepreneurship training had strengthened their understanding of entrepreneurs' responsibilities and rights, as well as their dedication to their stakeholders (mean=6.08, standard deviation =1.056).

Table 4.5: Descriptive statistics for Entrepreneurship Education

Item	Min	Max	mean	SD	Skewness	Kurtosis
I have learned several methods to generate basic business ideas	1	7	5.63	1.376	-1.393	2.077
Education enables me to recognize alternative career options	1	7	6.01	1.149	-1.453	2.626
Education enhances my ability to better perceive business opportunities in my environment	1	7	5.98	1.122	-1.379	2.185
Education empowered me to solve economic and social problems in my environments for a fee	1	7	4.91	1.684	-.746	-.122
Education enables me to identify the characteristics of successful business owners (e.g. risk-taking, pro-activity, innovativeness, etc	1	7	5.85	1.291	-1.449	2.139
Education gives me a feeling of independence	1	7	5.61	1.491	-1.369	1.648
Education increases my awareness of the different forms of businesses that I can set up i.e. Sole proprietorship, partnership	1	7	6.07	1.127	-1.489	2.548
I have acquired the skills, knowledge, and competencies needed to establish, develop and manage a new business	1	7	5.78	1.206	-1.201	1.689
Training increases my awareness of the duties and rights of self-employed people and their commitment to their stakeholders	2	7	6.08	1.056	-1.359	2.083
Education has enhanced my understanding of the different sources I can obtain funding to start a new business	1	7	5.78	1.264	-1.233	1.592

Source: Research data (2020)

4.4.3 Descriptive statistics for Entrepreneurial Attitude

Participants were also asked to rate their degree of agreement with statements indicating entrepreneurial attitude on a seven-point Likert scale. Descriptive statistics in table 4.6 indicate that all statements had a minimum of 1 and a maximum of 7, implying that both extreme ends of the Likert scale were extremely favorable and extremely unfavorable received responses. The study findings also revealed that respondents exhibited quite a positive attitude towards all statements concerning entrepreneurial attitude. This is because the mean score for all statements was approximately 6 and the

standard deviation ranged between 1 and 1.5. For instance, when participants were asked to indicate whether being an entrepreneur is bad or good, findings showed that respondents agreed that being an entrepreneur is quite good (mean=6.31, SD=1.236). Similarly, when asked whether being an entrepreneur is enjoyable or not, students showed that it's quite enjoyable to them (mean=5.96, SD=1.449).

Table 4.6: Descriptive statistics for Entrepreneurial attitude

Item	Min	Max	Mean	SD	Skewness	Kurtosis
To me being an entrepreneur is……….. Bad………… Good	1	7	6.31	1.236	-2.522	6.738
To me being an entrepreneur is……...unpleasant…... Pleasant	1	7	5.98	1.333	-1.800	3.284
To me being an entrepreneur is ....foolish ….. Wise	1	7	5.96	1.438	-1.834	3.176
To me being an entrepreneur is …. not enjoyable …….. enjoyable	1	7	5.96	1.449	-1.715	2.531
To me being an entrepreneur is….……… harmful ….. Beneficial	1	7	6.02	1.440	-1.774	2.648
To me being an entrepreneur is a………… failure …... Success	1	7	6.07	1.389	-1.878	3.358
To me being an entrepreneur is ……. Dissatisfying ….. Satisfying	1	7	6.01	1.328	-1.859	3.530
To me being an entrepreneur is …………..… disadvantageous ……… Advantageous	1	7	6.00	1.339	-1.830	3.497
To me being an entrepreneur is ………... Unnecessary………... Necessary	1	7	5.94	1.373	-1.714	2.852
To me being an entrepreneur is..,,,,... not Important … Important	1	7	5.97	1.477	-1.792	2.834
To me being an entrepreneur is …………. unlikely ………. Likely	1	7	5.75	1.469	-1.537	2.195
To me being an entrepreneur is …………. Not rewarding ………..Rewarding	1	7	6.12	1.423	-2.028	3.693

Source: Research data (2020)

4.4.4 Descriptive statistics for Entrepreneurial self-efficacy

Students were asked to rate their degree of agreement with different statements characterizing entrepreneurial self-efficacy on a seven-point Likert scale. Descriptive statistics in table 4.7 below indicate that all statements had a minimum of 1 and a

maximum of 7 except where respondents were asked whether they understand what it takes for them to start their businesses which had a minimum score of 2. Furthermore, the study results indicate that most of the students acknowledged all statements concerning entrepreneurial self-efficacy with a mean of approximately 6 and a standard deviation of between 1 and 1.3. To be specific, respondents agreed that they can come up with a well-conceived business plan and present it to investors for funding mean = 5.59 and a standard deviation of 1.252. They also agreed that they have confidence in their abilities to successfully execute entrepreneurial activities mean of 5.86and a standard deviation of 1.151. Lastly, they agree that they can identify business opportunities from a broader business environment with a mean = 5.84 and standard deviation = 1.049.

Table 4.7: Descriptive statistics for Entrepreneurial self-efficacy

Item	Min	Max	Mean	SD	Skewness	Kurtosis
I can originate new ideas	1	7	5.93	1.171	-1.628	3.547
I can take the responsibility for new ideas and decisions	1	7	5.94	1.114	-1.691	4.120
I can obtain business outcomes that are important to me	1	7	5.95	1.053	-1.415	3.136
When facing difficult tasks, I am certain that I will accomplish them	1	7	5.87	1.122	-1.133	1.592
I can make the right decisions under uncertainty and risk	1	7	5.64	1.092	-.833	.981
I can develop a well-conceived business plan and present it to potential investors.	1	7	5.59	1.251	-1.096	1.138
I can start my business venture	1	7	5.90	1.152	-1.414	2.510
I can identify a business opportunity from a broader environment.	1	7	5.84	1.049	-1.120	1.843
I have the required skills to engage in start-up activities	1	7	5.90	1.141	-1.240	1.804
I understand what it takes to start my own business	2	7	5.96	1.091	-1.090	1.029
I can understand the language of business and start-ups	1	7	5.77	1.113	-1.037	1.521
I can conduct a market analysis for a business idea	1	7	5.64	1.228	-.983	.973
I can recognize customer's unmet needs	1	7	5.86	1.064	-1.046	1.528
Compared to other students, I can do entrepreneurial tasks very well	1	7	5.80	1.164	-1.194	1.828
I am confident that I can perform effectively on many different entrepreneurial tasks	1	7	5.86	1.155	-1.285	2.091
I can successfully overcome business start-up challenges	1	7	5.59	1.264	-1.209	1.757
I believe I can succeed in any endeavor that I set in my mind	1	7	6.06	1.202	-1.628	3.100

Source: Research data (2020)

4.5 Transformed variables before factor analysis

After checking and treatment for missing values, data was transformed by obtaining the mean for each study variable. This was done with the help of SPSS under compute variable, where items relating to a particular variable were summed up and divided by the number of items to create a new variable in the data file. This was followed by running the descriptive statistics for the study variables as presented in table 4.8. Results indicate that entrepreneurial attitude had the highest mean of 6.2767 and lowest standard deviation of .71687, skewness of -1.564, and kurtosis of 2.941. This implies that respondents highly agreed in demonstrating a positive evaluation of entrepreneurial endeavors. This was followed by Entrepreneurial intentions with a mean score of 5.9645, a standard deviation of .87723, skewness of -1.254, and kurtosis of 1.681. These results suggest that respondents demonstrated readiness to engage in Entrepreneurship. Lastly, Table 4.8 presents mild differences in the mean scores for entrepreneurship education and entrepreneurial attitude. For instance, entrepreneurship education had a mean of 5.8640, a standard deviation of .82974, a skewness of -1.111, and a kurtosis of 1.18. On the other hand, entrepreneurial self-efficacy had a mean of 5.8300, standard deviations of .78736, skewness of -.914, and kurtosis of .991. the purpose of this statistical analysis was to understand how respondents responded to the overall variable as it was measured before condensing it to lesser items through factor analysis.

Table 4.8: Transformed variables before factor analysis

Variable	No. of Items	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Entrepreneurial Intentions	10	2.33	7.00	5.9645	.87723	-1.254	1.681
Entrepreneurship education	10	2.56	7.00	5.8640	.82974	-1.111	1.181
Entrepreneurial Attitude	12	3.25	7.00	6.2767	.71687	-1.564	2.941
Entrepreneurial self-efficacy	16	2.65	7.00	5.8300	.78736	-.914	.991
Valid N (listwise)							

Source: Research data (2020)

4.6 Categorical Data

Using categorical data, one-way ANOVA was performed to compare whether the four study variables had statistically significant differences for the different groups as reflected by the different control variables which are age, Gender, program, and parent's/guardian's career.

4.6.1 Respondent's age against study variables

Results in table 4.9 below reveal that no statistically significant difference exists between students' age and all the study variables. For instance, age and Entrepreneurial intentions (F=2.03, P=.109), Age and entrepreneurship education (F=1.37, P=.251), age and entrepreneurial attitude (F= 1.109, P=.345), and entrepreneurial self-efficacy (F=1.761, P=.154). These results imply that someone's age does not influence his/her Entrepreneurial intentions, entrepreneurship education, entrepreneurial attitude, and self-efficacy. That different age brackets have no impact on the study variables.

Table 4.9: Respondent's age against study variables

Variable	Years	N	Mean	SD	F	Sig.
		DESCRIPTIVES			ANOVA	
Entrepreneurial	Below 20	3	5.41	1.80	2.03	.109
Intentions	20-25	345	5.96	0.88		
	26-30	36	6.11	0.70		
	Above 30	4	5.11	1.17		
	Total	**388**	**5.96**	**0.88**		
Entrepreneurship	Below 20	3	5.2963	1.12400	1.37	.251
Education	20-25	345	5.8618	.84172		
	26-30	36	5.9938	.66186		
	Above 30	4	5.3056	.82340		
	Total	**388**	**5.8640**	**.82974**		
Entrepreneurial attitude	Below 20	3	6.5000	.86603	1.109	.345
	20-25	345	6.2634	.72957		
	26-30	36	6.4306	.46781		
	Above 30	4	5.8750	1.27929		
	Total	**388**	**6.2767**	**.71687**		
Entrepreneurial self-efficacy	Below 20	3	5.4314	1.15620	1.761	.154
	20-25	345	5.8065	.79745		
	26-30	36	6.0294	.65284		
	Above 30	4	6.3676	.32353		
	Total	**388**	**5.8300**	**.78736**		

Source: Research Data, (2020)

4.6.2 Respondent's Gender against Study Variables

This subsection highlights the statistical differences between the gender of the participants and the study variables as shown in table 4.10 below. The study results reveal that there is a statistically significant difference between the gender of the respondents and Entrepreneurial intentions ($F = 12.52$, $p = 0.000$). These results suggest that male respondents have high Entrepreneurial intentions with (mean= 6.12, SD=0.79) as compared to female participants who report a mean of 5.81 and a standard deviation of 0.93. Also, the student's gender has a marginal statistically significant difference with Entrepreneurial self-efficacy ($F = 6.387$, $\rho = 0.012$). These findings

suggest that male students have stronger levels of entrepreneurial self-efficacy (mean=5.9319, SD=0.78736) as compared to the female students who report slightly a lower mean of 5.7313 and standard deviation of 0.81863

For entrepreneurial attitude and entrepreneurship education, results show that there are no statistically significant differences between students' gender and these two study variables (F = 0.793, p= 0.374) and (F = 1.74, ρ= 0.188) respectively. This implies that students' gender does not influence entrepreneurial attitude and entrepreneurship education.

Table 4.10: Respondent's Gender against Study Variables

Variable	Gender	N	Mean	SD	F	Sig.
			DESCRIPTIVE		ANOVA	
Entrepreneurial Intentions	Female	197	5.81	0.93	12.52	.000
	Male	191	6.12	0.79		
	Total	388	5.96	0.88		
Entrepreneurship Education	Female	197	5.81	0.86	1.74	.188
	Male	191	5.92	0.80		
	Total	388	5.86	0.83		
Entrepreneurial Attitude	Female	197	6.2448	.75557	.793	.374
	Male	191	6.3096	.67505		
	Total	388	6.2767	.71687		
Entrepreneurial self -efficacy	Female	197	5.7313	.81863	6.387	.012
	Male	191	5.9319	.74219		
	Total	388	5.8300	.78736		

Source: Research Data (2020)

4.6.3 Respondent's program against Study Variables

To ascertain if there exists a significant difference in the study variables concerning the program, one-way ANOVA was performed. Table 4.11 results reveal that business students reported a higher mean of 6.12 with a standard deviation of 0.79 compared to the non-business students who reported a mean of 5.81 and a standard deviation of .93. Significant differences between Entrepreneurial intentions and program offered exist

(F=12.52, P=.000). These findings suggest that business students are more likely to become entrepreneurs than non-business students because they have stronger entrepreneurial inclinations. When comparing business and non-business students' entrepreneurial self-efficacy, the data demonstrate that there were significant differences (F=6.387, P=.012). Business students reported a higher entrepreneurial self-efficacy (mean=5.93, SD =0.74) than non-business students (mean=5.73, SD=0.82). This demonstrates that students who are offered business programs tend to have high confidence in their entrepreneurial abilities than their counterparts.

Results also indicate no significant differences in students' entrepreneurial attitude (F=.793, P=.374) and entrepreneurship education (F=6.387, P=.012) regardless of the program offered. These findings imply that the students' program has no impact on their entrepreneurial mindset or education. Thus, whether business or non-business students their level of entrepreneurial attitude and impact of entrepreneurship education remains the same.

Table 4.11: Respondent's program against Study Variables

Variable	Program	DESCRIPTIVES			ANOVA	
		N	Mean	SD	F	Sig.
Entrepreneurial Intentions	Non-business	108	5.81	0.93	12.52	.000
	Business	280	6.12	0.79		
	Total	388	5.96	0.88		
Entrepreneurship Education	Non-business	108	5.81	0.86	1.74	.188
	Business	280	5.92	0.80		
	Total	388	5.86	0.83		
Entrepreneurial Attitude	Non-business	108	6.24	0.76	.793	.374
	Business	280	6.31	0.68		
	Total	388	6.28	0.72		
Entrepreneurial self-efficacy	Non-business	108	5.73	0.82	6.387	.012
	Business	280	5.93	0.74		
	Total	388	5.83	0.79		

Source: Research Data (2020)

4.6.4 Respondent's Parents/guardian's career against Study Variables

Concerning the Parents/guardian's careers of the students, findings in table 4.12 below show that there is a statistically significant difference in students' Entrepreneurial intentions (F=11.97, P=.001). Respondents whose parents/guardians were entrepreneurs reported stronger Entrepreneurial intents (mean=6.08, SD=.82) as compared to students whose parents/guardians were employees in companies and organizations (mean=5.77, SD=.93). This suggests that students from families with self-employed parents/guardians had higher chances of undertaking Entrepreneurship as their career choice as compared to those from families where parents/guardians were employed in formal jobs.

Similarly, findings suggest that there are statistically significant differences in students' entrepreneurial self-efficacy (F=6.76 P=.010). Still, students with entrepreneurial parents/guardians reported a stronger entrepreneurial self-efficacy (mean =5.91, SD=.75) than those whose parents were employed (mean =5.70, SD=.87). This implies that students from families where parents/guardians are self-employed have a higher belief in their entrepreneurial competencies than their counterparts thus higher chances to become entrepreneurs is high.

On the contrary, no statistically significant difference in students' entrepreneurial attitude (F=6.76, P=.142) and entrepreneurship education (F=3.82, P=.142) was found. This means that students' entrepreneurial attitude and entrepreneurship education is not influenced by students' parents'/guardians' career.

Table 4.12. Respondent's Parent's/guardian's career against Study Variables

		DESCRIPTIVES			ANOVA	
Variable	Parent's career	N	Mean	SD	F	Sig.
Entrepreneurial Intentions	Employed guardian	145	5.77	0.93	11.97	.001
	Self-employed guardian	243	6.08	0.82		
	Total	388	5.96	0.88		
Entrepreneurship Education	Employed guardian	145	5.76	0.84	3.82	.052
	Self-employed guardian	243	5.93	0.82		
	Total	388	5.86	0.83		
Entrepreneurial Attitude	Employed guardian	145	6.21	0.72	2.164	.142
	Self-employed guardian	243	6.32	0.71		
	Total	388	6.28	0.72		
Entrepreneurial Self-efficacy	Employed guardian	145	5.70	0.87	6.76	.010
	Self-employed guardian	243	5.91	0.75		
	Total	388	5.83	0.79		

Source: Research Data (2020)

4.7 Reliability

The Cronbach's alpha coefficient test was used to determine the instrument's internal consistency. This is because, when using the Likert scale, is the popular accurate method of dependability (Mohajan, 2017). Though there are no absolute rules for internal consistency, there are certain guidelines to follow. For example, Zikmund *et al*. (2013) posit that an alpha coefficient of 0.80 to 0.95 suggests excellent reliability, 0.70 to 0.80 suggests high reliability, 0.60 to 0.70 shows moderate reliability, and below 0.6 suggests weak reliability. Whereas according to Nunnally (1978) alpha of .60 or higher is acceptable for newly developed scales. The majority of academics, however, agree on a minimal internal consistency coefficient of 0.70 (Nunnally, 1978; Taherdoost, 2016b). Against this backdrop, the study research instrument is deemed reliable since Cronbach's alpha for the study variables ranged from 0.771 to 0.918 as shown in table 4.13 below. Thus, following Zikmund *et al.* (2013) the level of internal

consistency of the instrument was considered to range between high and excellent reliability.

Table 4.13: Reliability Statistics

Variables	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
Entrepreneurial Intentions	0.771	0.771	04
Entrepreneurship Education	0.769	0.770	05
Entrepreneurial Attitude	0.932	0.931	12
Entrepreneurial Self-efficacy	0.918	0.918	14

Source: Research data (2020)

4.8 Factor Analysis

Factor analysis was conducted for basically three reasons: (1) data reduction by identifying the latent variables and condensing a vast number of variables or things to a manageable number of elements, (2) construct validity, and (3) preparation of data for further analysis (Crothers *et al.*, 2009). First, exploratory factor analysis was used to identify the underlying components within a set of data. Thus, exploratory factor analysis was carried out for all items used to measure the predicted variable (entrepreneurial intentions), the predictor variable (entrepreneurial training), the mediator variable (entrepreneurial attitude), and the moderator variable (entrepreneurial self-efficacy).

Before executing exploratory factor analysis, principal component factor analysis was first conducted to check on the adequacy of the sample data. The Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity were performed to determine the suitability of the research data for factorability. A KMO value that ranges between 0 and 1, a minimum of 0.60, should be met for the sample to be appropriate for good factor analysis (Tabachnick & Fidell, 2001). It is further argued that different ranges of the KMO index explain different degrees of common variance

among the variables that are to be factored in. For instance, KMO 0.00 to 0.490 should not be factored, 0.50 to 0.59 is miserable, 0.60 to 0.69 is mediocre, 0.70 to 0.79 is middling, 0.80 to 0.89 is meritorious, and 0.90 to 1.00 is deemed marvelous. On the other hand, Bartlett's test of sphericity should be statistically significant at $\rho < 0.05$.

Following that, factor extraction was carried out by calculating the minimum number of factors that might be utilized to best depict the interrelationships between the variables. Factors with Eigenvalues 1 and above were extracted using principal component analysis (PCA). Though there are multiple methods like principal factoring, image factoring, and alpha factoring, because the original variables are transformed into a smaller set of linear combinations, PCA was chosen. Tabachnick and Fidell (2001) claim that PCA is psychometrically robust, mathematically simpler, and eliminates some of the potential difficulties associated with factor analysis, such as factor indeterminacy.

Finally, after determining the number of components, the next step was to interpret them. To do so, this process was supported by performing factor rotation. This procedure does not alter the underlying solution; rather, it simplifies the interpretation of the loading pattern. The Orthogonal approach with the Varimax method was utilized because it reduced the number of items that had high loadings on each component. While the orthogonal approach was chosen because its results are easier to interpret and report as compared to oblique approaches (Tabachnick & Fidell, 2001).

4.8.1 Factor analysis for Entrepreneurial intentions

Results from exploratory factor analysis for the outcome variable (Entrepreneurial intentions) in table 4.14 below provide a KMO of 0.695. This implies that the degree of common variance among the eight variables was middling. This KMO index met the

minimum requirement of 0.6 as recommended by many scholars (Tabachnick & Fidell, 2001; Taherdoost, 2016b). Bartlett's Test of Sphericity Statistics was significant (chi-square = 481.926, df = 6, P =.000), thus the sample data was suitable for factorability. The analysis produced a single component with initial Eigenvalues of 2.382 for the ten items that were factored in. Four factors (EI2, EI3, EI4, and SE10) were found to better explain the biggest total variance of 59.560 percent.

Table 4.14: Factor analysis for Entrepreneurial intentions

Items	Component
I will put out every effort to create and operate my firm.	.700
In the future, I am determined to start up a business.	.834
I have considered starting my own business.	.842
I am ready to take on the challenges of starting a business.	.698
Total Variance Explained: Rotation Sums of Squared Loadings	
Initial Eigenvalues	2.382
% of Variance	59.560
Cumulative variance %	59.560
KMO and Bartlett's Test	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.695
Bartlett's Test of Sphericity, Approx. Chi-Square	481.926
Df	6
Sig.	0.000

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

4.8.2 Factor analysis for Entrepreneurship Education

Findings revealed a KMO index of 0.796, which was higher than the minimum of 0.6 (Tabachnick & Fidell, 2001; Taherdoost, 2016b). This demonstrated that the degree of common variance among the five variables was approximately meritorious. Bartlett's Test of Sphericity Statistics was significant (chi-square = 445.537, df = 10, P =.000). Therefore, the sample data was fit for factorability. From the 10 items that were factored in, the solution provided a single component with an initial Eigenvalue of 2.608 and explained a total variance of 52.163 percent for the five variables that were loaded. All

items with factor loadings above 0.5 were considered in further analyzes, as shown in

table 4.15 below;

Table 4.15: Factor analysis for Entrepreneurship Education

Items	Factor 1
Education enables me to recognize alternative career options	.762
Education enhances my ability to better perceive business opportunities in my environment	.807
Education enables me to identify the characteristics of successful business owners (e.g. risk-taking, pro-activity, innovativeness, etc	.764
Education increases my awareness of the different forms of businesses that I can set up i.e. Sole proprietorship, partnership	.768
Education has enhanced my understanding of the different sources I can obtain funding to start a new business	.761
Total Variance Explained: Rotation Sums of Squared Loadings	
Initial Eigenvalues	2.608
% of Variance	52.163
KMO and Bartlett's Test	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.796
Bartlett's Test of Sphericity, Approx. Chi-Square	445.537
Df	10
Sig.	.000

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

4.8.3 Factor analysis for Entrepreneurial Attitude

Results from exploratory factor analysis for the mediating variable (Entrepreneurial

Attitude) in table 4.16 reveal a KMO of 0.942. According to Tabachnick and Fidell

(2001), this KMO index implies that the degree of common variance among the twelve

variables was marvelous. The KMO index is higher than the cut-off of 0.6 (Tabachnick

& Fidell, 2001; Taherdoost, 2016b). Bartlett's Test of Sphericity Statistics was

significant (chi-square = 2950.368, df = 66, P =.000), thus the sample data was suitable

for factorability. The 12 items that were factor analyzed yielded one factor with an

initial Eigenvalue of 6.952 and explained a total variance of 57.932 percent for the entire set of variables.

Table 4.16: Factor analysis for Entrepreneurial Attitude

Items	Factor 1
To me being an entrepreneur is ……. Bad…………Good	.575
To me being an entrepreneur is ……. unpleasant ……. Pleasant	.673
To me being an entrepreneur is …….foolish …….. Wise	.788
To me being an entrepreneur is ……. not enjoyable ……. Enjoyable	.750
To me being an entrepreneur is ……harmful …... Beneficial	.816
To me being an entrepreneur is a…… failure …. Success	.769
To me being an entrepreneur is ……... Dissatisfying …... Satisfying	.815
To me being an entrepreneur is.…… disadvantageous …… Advantageous	.805
To me being an entrepreneur is ……. Unnecessary ……. Necessary	.789
To me being an entrepreneur is ……. not Important …… Important	.815
To me being an entrepreneur is ……. unlikely ………. Likely	.847
To me being an entrepreneur is ……. Not rewarding …… Rewarding	.759
Total Variance Explained: Rotation Sums of Squared Loadings	
Initial Eigenvalues	6.952
% of Variance	57.932
KMO and Bartlett's Test	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.942
Bartlett's Test of Sphericity, Approx. Chi-Square	2950.368
Df	66
Sig.	.000

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

4.8.4 Factor analysis for Entrepreneurial self-efficacy

Factor analysis was performed on 17 variables measuring Entrepreneurial self-efficacy using principal component analysis with varimax rotation to determine the components. Results indicate that two items did not load under any of the factors and were omitted. The solution extracted two factors explaining a total variance of 54.819 percent, and a KMO of 0.944 was attained. This implies that the degree of common variance among the 15 variables was marvelous (Tabachnick & Fidell, 2001). Bartlett's Test of

Sphericity Statistics was significant (chi-square = 3301.565, df = 136, p =.000), thus the sample data was suitable for factorability. From the 14 items that were factored in, the analysis yielded two factors. The first factor had an initial Eigenvalue of 8.086 and ten items loaded under it. It explains 32.046 percent of the variance, and this factor was named business start-up efficacy. Five items were loaded under the second factor, which had an initial Eigenvalue of 1.233 and accounted for 22.773 percent of the variance; this factor was named creative self-efficacy (see table 4.17 below).

Table 4.17: Factor analysis for Entrepreneurial self-efficacy

Items	Factor1	Factor2
I can originate new ideas		.782
I can take the responsibility for new ideas and decisions		.787
I can obtain business outcomes that are important to me		.716
When facing difficult tasks, I am certain that I will accomplish them		.649
I can make the right decisions under uncertainty and risk		.543
I can start my business venture	.593	
I can identify a business opportunity from a broader environment.	.623	
I have the necessary skills to engage in start-up activities	.653	
I understand what it takes to start my own business	.682	
I can understand the language of business and start-ups	.783	
I can conduct a market analysis for a business idea	.703	
I can recognize customer's unmet needs	.739	
Compared to other students, I can do entrepreneurial tasks very well	.678	
I am confident that I can perform effectively on many different entrepreneurial tasks	.581	
I can successfully overcome business start-up challenges	.640	
Total Variance Explained: Rotation Sums of Squared Loadings		
Initial Eigenvalues	8.086	1.233
% of Variance	32.046	22.773
% Cumulative variance	32.046	54.819
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.944	
Bartlett's Test of Sphericity, Approx. Chi-Square	3301.565	
Df	136	
Sig.	.000	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

4.9 Transformed Variables after Factor Analysis

After factor analysis, some items that did not load were eliminated to compute the variables that were used in further analysis, and the data were transformed in line with Zikmund *et al*. (2013). This was done by computing the mean for each variable. The mean was obtained by summing up the factor scores (loadings) that loaded under each variable, then dividing them by the number of items that loaded. By so doing, a single variable was obtained to explain multiple variables that were factored in. As a result, the descriptive statistics utilized in the subsequent study are listed in Table 4.18 below.

Table 4.18: Transformed Variables after Factor Analysis

Variable	Min	Max	Mean	S.D	Skewness	SE	Kurtosis	SE
Entrepreneurial Intentions	2.25	7.00	6.001	.9829	-1.352	.124	1.800	.247
Entrepreneurship Education	3.20	7.00	5.936	.8597	-.972	.124	.526	.247
Entrepreneurial Attitude	2.00	7.00	6.008	1.055	-1.665	.124	2.532	.247
Entrepreneurial self-efficacy	2.57	7.00	5.844	.790	-.942	.124	1.166	.247
Valid N (listwise)								

Source: *Research Data (2020)*

4.10 Data Diagnostic Tests

Regression analysis will be run to ensure that, before subjecting data to parametric tests, the following assumptions are met. Where the conditions of regression analysis are not met, the findings are invalid. According to Casson and Farmer (2014), if all the assumptions are met, estimates of the beta parameters will be good. Therefore, the following assumptions were tested:

4.10.1 Sample adequacy

Sample size affects the statistical power, which determines the generalizability of results. Small sample sizes may not yield results that can be repeated with other samples, and non-normality is less harmful when sample numbers are bigger. Various writers have varied recommendations for the number of cases necessary for multiple

regressions. For instance, Stevens (1996) recommends that a credible equation in social science research requires roughly 15 individuals per predictor. According to Crothers *et al*. (2009); Hair *et al*. (2006), in hierarchical multiple regression analysis, the minimum valid case-to-independent-variable ratio must be at least 5 to 1. On the other hand, a ratio of 40 to 1 is recommended by Tabachnick & Fidell (2001; Tabachnick *et al*., 2007). The 388 valid cases in this study against three independent variables gave a ratio of 388 to 3, which meets the above recommendations.

4.10.2 Linearity test

Multiple regressions assume a linear relationship must exist if one is to correctly establish the association of predicted and predictor variables (Osborne & Waters, 2002). The response variable is believed to be a linear function of the parameters, but not necessarily of the predictor variables (Osborne & Waters, 2002). It has also been noted that non-linear relationships between the predictor variable and the outcome variable increase the risk of type 11 errors in the results of regression analysis since the true relationship will be underestimated. The linearity assumption was established by inspecting the P-P plot, which showed that the scores were well represented by a straight line (Ernst & Albers, 2017). As a result, non-linearity was not an issue because the P-P plot shows a straight line, as shown in figure 4.1 below.

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Selfemploument
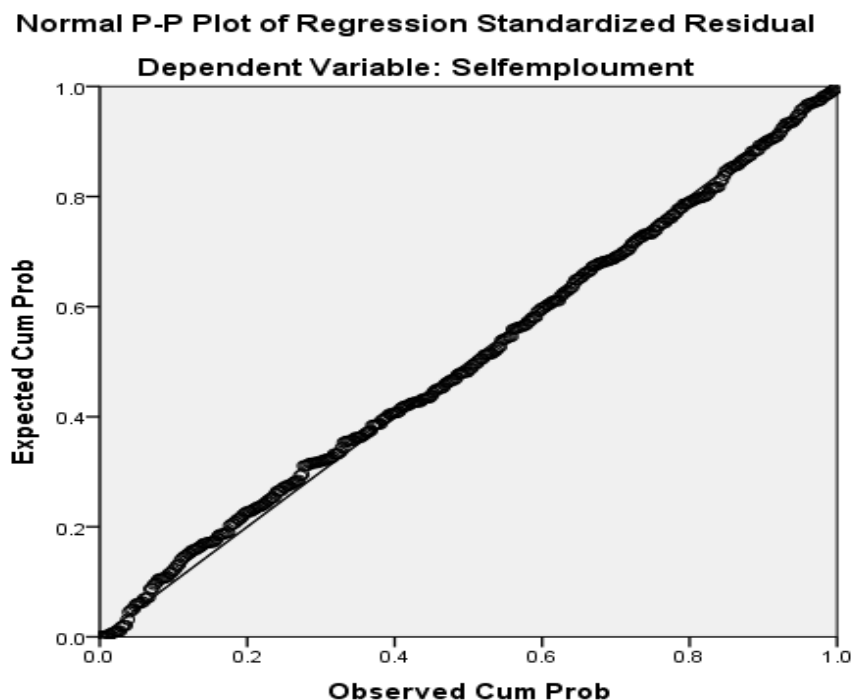
Figure 4.1: Linearity and Normality plot

4.10.3 Normality test

The normal distribution is among the main assumptions of regression models. According to Tabachnick and Fidell (2001), non-normally distributed variables result in distorted correlations. Normality holds that the distribution of the test is asymmetrical, with more scores around the mean and fewer towards the extremes (Casson & Farmer, 2014; Gravetter & Wallnau, 2000). The tests for normality were done at both the univariate and multivariate levels using skewness, kurtosis, normal P-P plots, and a histogram. Data were normally distributed at the multivariate level because the histogram for the dependent variable against the regression standardized residuals was bell-shaped. However, at the univariate level, the data violated the normality assumption, as it was highly and negatively skewed to the right for all the study variables See histograms for non-normal study variables under Appendix 3 and Table 4.19, where skewness statistics double the standard errors, according to Casson

and Farmer (2014), this is a sign of non-normality. To overcome this problem, the study variables were transformed as recommended by Tabachnick & Fidell (2001) and Templeton (2011). This was done following the steps of Templeton (2011), which involved mathematically modifying the scores using the fractional rank method, which made the distribution normal.

This assumption was met since skewness values didn't double their standard errors, were close to zero and were within the range of +1.96 to -1.96 (Templeton, 2011). +2 to -2 (Tabachnick & Fidell, 2007) see table 4.19). The histograms for each variable show the actual form of the distribution, which looks to be relatively normal with the majority of the scores in the middle. A look at the normal probability plots confirms this; a reasonably straight line indicates a normal distribution. These methods are recommended by many scholars due to their stability when dealing with large samples (over 200 cases) compared to statistical methods that rely on p-values that are unstable (Stevens, 2002; Tabachnick & Fidell, 2001).

Table 4.19: Descriptive after data transformation using the fractional rank method

Variable	Items	Mean	SD	Skewness		Kurtosis	
				Statistic	SE	Statistic	SE
Entrepreneurial intentions	4	5.963	.841	-.082	.124	-.593	.247
Entrepreneurship education	5	5.870	.806	.029	.124	-.475	.247
Entrepreneurial Attitude	12	6.268	.661	-.194	.124	-.843	.247
Entrepreneurial Self-efficacy	14	5.833	.768	-.018	.124	-.449	.247
Valid N (listwise)							

Source: Research data (2020)
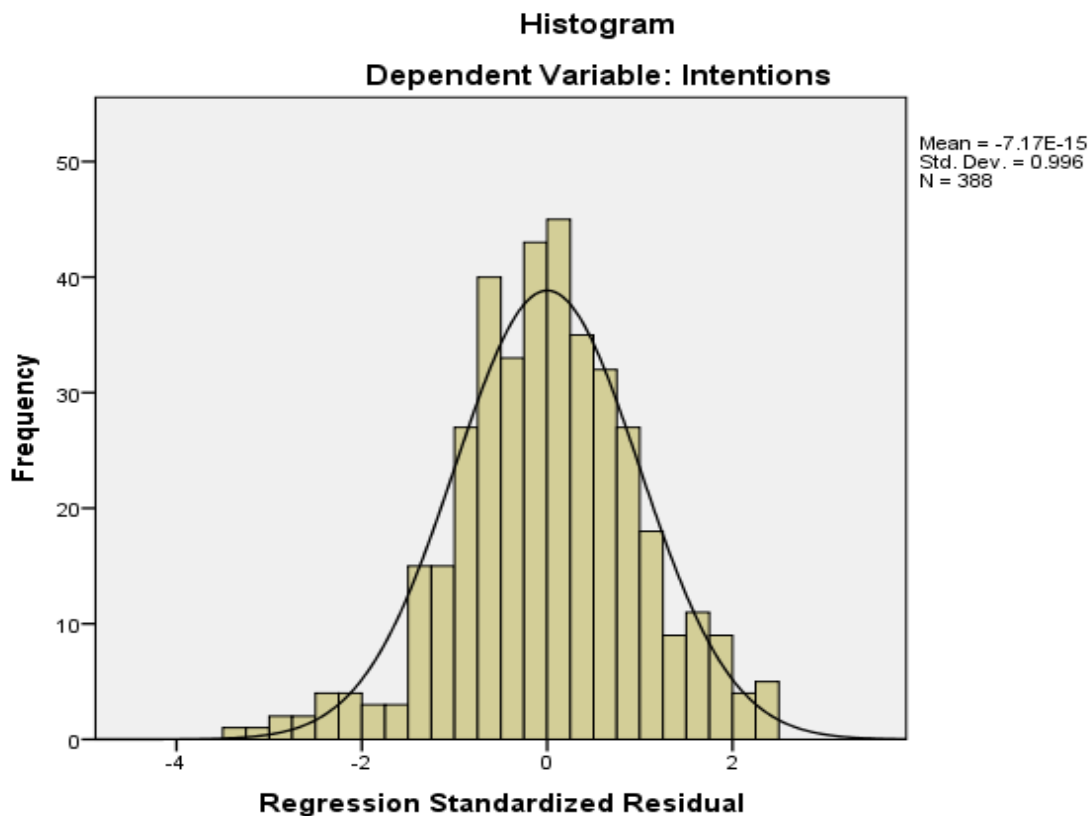
Figure 4.2: Normality test histogram

4.10.4 Homoscedasticity tests

This is a regression assumption, which states that the variance of the errors remains constant for every combination of independent variable values (Ernst & Albers, 2017). That is a constant variance, or the relationship is constant for the entire range of the dependent variable. According to Osborne and Waters (2002), the homoscedasticity assumption does not hold if the variance of errors is different at various values of the independent variables. The violation of this assumption is referred to as "heteroscedasticity," and this can lead to misleading results and also increase the likelihood of type 1 error (Ernst & Albers, 2017). Therefore, the inference process becomes untrustworthy. To check for homoscedasticity, Levene's test for equality of variances was utilized. When Levene's test statistic is negligible, this test asserts that homoscedasticity of variance is proven (Osborne & Waters, 2002; Williams *et al.*,

2013). Following this decision rule, it was found that Levene's statistics were not significant, thus the homoscedasticity assumption was met, as shown in Table 4.20 below;

Table 4.20: Levene's Test for Homoscedasticity

Variable	Levene's Statistic	Sig.
Entrepreneurial Intentions	.356	.785
Entrepreneurship Education	.405	.750
Entrepreneurial Attitude	1.265	.286
Entrepreneurial self-efficacy	.870	.456

Source: *Research data (2020)*

4.10.5 Testing for Independence of Errors

One of the fundamental assumptions of the regressions is that the random error disturbances are distributed uniformly and independently. Where this assumption is compromised, i.e., when the variance of the disturbance term does not remain constant, the heteroscedasticity problem develops (Osborne & Waters, 2002). When the variance of a disturbance term is constant but the subsequent disturbance terms are correlated, this is known as the auto-correlation problem. The Durbin-Watson test was used to determine the error terms' independence. The decision rule is that the Durbin-Watson statistic should be between 1.5 and 2.5 to conclude that the error terms are independent (Tabachnick & Fidell, 2007). Thus, there was no problem with autocorrelation since the Durbin-Watson statistic was 2.009, as shown in Table 4.23.

4.10.6 Multicollinearity

Multicollinearity occurs when two or more predictor variables in a multiple regression model are highly correlated, defined as a correlation greater than 0.8 (Williams *et al*., 2013). Multicollinearity tends to inflate the regression estimate, standard errors, and confidence intervals (Ernst & Albers, 2017). This assumption was tested using correlations, tolerance, and VIF. The acceptable tolerance values are that it should be

more than 0.20, while the values for the variance inflation factor (VIF) should be less than 10 (Stevens, 2002). This implies that multi-collinearity was not an issue since all the variables' tolerances were above 0.20 and the VIF was below 5, as shown in table 4.21 below, and the correlations were below 0.8, see table 4.22.

Table 4.21. Multi-collinearity of the Independent Variables

Variable	Collinearity Statistics	
	Tolerance	**VIF**
Entrepreneurship Education	.601	1.665
Entrepreneurial Attitude	.681	1.467
Entrepreneurial self-efficacy	.572	1.749

Source*: *Research Data (2020)

4.11 Correlation Results

To determine the link between the research variables, the Pearson Product-Moment Correlation test was used. Correlation results as shown in table 4.22 below indicate a positive and significant association between Entrepreneurship Education and Entrepreneurial Intentions (r = 0.484, ρ< 0.01). Further, Entrepreneurial Attitude is positively and significantly associated with Entrepreneurial intentions (r = 0.568, ρ< 0.01). Similarly, entrepreneurial self-efficacy and Entrepreneurial intentions were positively and significantly associated (r = .556, ρ< 0.01). Furthermore, the findings revealed that entrepreneurship education is favorably and strongly linked to entrepreneurial mentality (r = 0.485, ρ< 0.01). Besides, entrepreneurship education was found to be positively and significantly associated with entrepreneurial self-efficacy (r = 0.599, ρ< 0.01). Finally, a favorable and substantial relationship was discovered between entrepreneurial attitude and entrepreneurial self-efficacy (r = 0.521, ρ< 0.01). These results imply that Entrepreneurship Education, Entrepreneurial Attitude, and Entrepreneurial self-efficacy were expected to influence Entrepreneurial Intentions as shown in table 4.22 below;

Table 4.22: Correlation Statistics for the Variables

Variable	1	2	3	4
Entrepreneurial Intentions (1)	1			
Entrepreneurship Education (2)	$.484^{**}$	1		
Entrepreneurial Attitude (3)	$.568^{**}$	$.485^{**}$	1	
Entrepreneurial Self-efficacy (4)	$.556^{**}$	$.599^{**}$	$.521^{**}$	1

**. Correlation is significant at the 0.01 level (2-tailed).
Source: *Research Data (2020)*

4.12 Hypotheses Testing

Hierarchical regression analysis was utilized to test for the direct effects that are H_{01}, H_{02}, and H_{03}. This method helped in explaining the variance in the outcome variable (Entrepreneurial Intentions) that is attributed to the additional variable in the model. The test statistics that were computed for each model are the coefficient of determination (R^2), the unstandardized beta coefficient (β), and the p-values. The decision to reject or not reject a hypothesis was guided by the level of significance (p-value). Where p-values were above 0.05, the hypothesis was not rejected and where it was below 0.05, the hypothesis was rejected (Whittall & MacKay, 1989).

4.12.1 Testing the effect of Control variables

Before testing for the hypotheses, the covariates were regressed against the dependent variable (Entrepreneurial intentions) to determine the variance in the dependent variable that is explained by the covariates that are: gender, age, program, and parent's/guardian's career. Findings in table 4.23 below indicate that gender and parent's/guardian's career are significant predictors of Entrepreneurial intentions β = .289, p < .05 and β = .275, p < .05 respectively while age and program were insignificantly affecting Entrepreneurial intentions β = -.044, p > .05 and β = .039, p > .05 respectively. The overall model explains .062 variance, F = 6.375, P<.001. This

implies that the covariates account for a 6.2 percent change in Entrepreneurial intentions.

Table 4.23: Testing the effect of Control variables

Model 1	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	SE	Beta	T	Sig.	Tolerance	VIF
(Constant)	5.714	.265		21.561	.000		
Gender	.289	.086	.172	3.343	.001	.926	1.080
Age	-.044	.116	-.019	-.382	.703	.976	1.024
Program	.039	.097	.021	.407	.684	.921	1.086
p's career	.275	.089	.159	3.086	.002	.927	1.079
Model Summary statistics							
R		.250					
R Square		.062					
Adjusted R Square		.053					
Std. Error of the Estimate		.81850					
R Square Change		.062					
F Change		6.375***					
Durbin Watson		*2.009*					

a. Dependent Variable: Entrepreneurial Intentions
Source: Research data (2020)

4.12.2 Testing for the direct effects

Entrepreneurship education and entrepreneurial intentions

In table 4.24 model 2 below the covariates that were gender, age, program, and parent's/guardian's career were controlled to determine the impact of Entrepreneurial training on Entrepreneurial intents (H_{01}). The rest of the control variables were not significant except gender $\beta=.230$, $p<.01$ and parent's/guardian's career $\beta=.180$, $p<.05$. Results also indicate that entrepreneurship training significantly and positively predicts Entrepreneurial intentions $\beta=.489$, $p<.001$. This means that for every unit change in Entrepreneurship Training, students' entrepreneurial inclinations vary by.489. Basing

on these results, *H$_{01}$* which stated that there is no significant influence of entrepreneurship education on Entrepreneurial intentions was rejected.

Entrepreneurial Attitude and Entrepreneurial Intentions

In the third model, the null hypothesis (*H$_{02}$*) which stated that there is no significant effect of Entrepreneurial attitude on Entrepreneurial intentions was tested. In this model, the covariates and Entrepreneurship education were controlled. Gender and guardian's /parent's career remained significant at β=.228, p<.01 and β=.180, p<.05 besides a positive and significant effect of entrepreneurship education on Entrepreneurial intentions (β=.269, p<.001). Results further indicated that entrepreneurial attitude positively and significantly influences Entrepreneurial intentions β=.544, p<.001. This suggests that a unit improvement in students' entrepreneurial attitude would lead to a .544 increase in their Entrepreneurial intentions. Against this backdrop, the null hypothesis was rejected.

Entrepreneurial self-efficacy and Entrepreneurial Intentions

Lastly, model 4 was used to test for the null hypothesis which stated that entrepreneurial self-efficacy has no significant impact on Entrepreneurial intentions. Results in Table 4.24 demonstrate that entrepreneurial self-efficacy is a positive and significant predictor of Entrepreneurial intentions β=.302, p<.001. This means that a unit increase in entrepreneurial self-efficacy brings about .302 increases in students' Entrepreneurial intentions. Therefore, the null hypothesis was rejected.

Table 4.24: Hierarchical Regression Results

Predictors	Model 2 Unstandardized Coefficients B	t	Model 3 Unstandardized Coefficients β	t	Model 4 Unstandardized Coefficients β	t
(Constant)	3.026***	8.764	.882*	2.291	.692	1.854
Gender	.230**	3.015	.228**	3.319	.202**	3.035
Age	-.055	-.533	-.056	-.611	-.123	-1.365
Program	-.089	-	-.012	-.155	-.008	-.111
Parent's career	.213*	2.701	.180*	2.529	.153*	2.218
EE	.489***	10.56	.269***	5.622	.141**	2.716
EA		_	.544***	9.457	.440***	7.491
ESE		_		_	.302***	5.402
Model Summary statistics						
R Square	.274		.41		.454	
Adjusted R Square	.265		.403		.444	
Std. Error	.721		.64970		.62693	
R Square Change	.212		.138		.042	
Sig. F Change	111.590***		89.438***		29.180****	

a. Dependent Variable: Entrepreneurial Intentions

Note: *$p<.05$, **$p<.01$, ***$p<.001$, EE = Entrepreneurship education, EA= Entrepreneurial attitude ESE=Entrepreneurial self-efficacy.

4.12.3 Testing for the indirect effect

In the process of testing for the indirect impact of Entrepreneurial Attitude in the relationship between Entrepreneurship Education and Entrepreneurial intentions *(H06),* hypothesis 5 *((H05)* which states that; there is no significant effect of entrepreneurship education on entrepreneurial attitude was also tested since it's a necessary condition while testing for indirect effects. To do so, Hayes' (2018) PROCESS macro vs 3.2 (Model 4) was utilized. Thus, a series of regression model conditions were meant as follows; Model 1; the predictor variable (Entrepreneurship Education) was used to predict the outcome variable (entrepreneurial attitude). Results in model1 show that entrepreneurial education positively affects entrepreneurial attitude (β =.405, p<.001). All the control variables were not significant except the program (β = -.142, p<.05) and the overall model explains 24.5 percent variance. This implies that a unit increase in entrepreneurship education results in .405 improvements in entrepreneurial attitude. Thus, null hypothesis 5 was rejected.

As earlier established in the hierarchical regression, in the second model, Entrepreneurial attitude was found to be significantly influencing Entrepreneurial intentions $\beta = .544$, p<.001 with gender and parent's/guardian's career being statistically significant at $\beta = .228$, p<.01 and $\beta = .180$, p<.05 respectively. Further, using the second model we tested for the direct effect of Entrepreneurship Education on Entrepreneurial intentions while controlling for entrepreneurial attitude. Results showed that entrepreneurship education has a significant effect on Entrepreneurial intentions $\beta = .269$, p<.001.

Lastly, bootstrapping was executed repeatedly while randomly sampling observations with replacements to determine whether mediation has taken place or not (Preacher & Hayes, 2004). Findings from the bootstrap method indicate that the indirect impact of entrepreneurship education on Entrepreneurial intention via entrepreneurial attitude was statistically significant since the confidence interval (CI) was none zero (a×b), $\beta = .220$, SE $= .036$, 95% CI $= .152$ to $.294$ (see table 4.25, model3). The indirect effect model indicates partial mediation between entrepreneurship education and Entrepreneurial intention via entrepreneurial attitude since the direct effect of entrepreneurship education on Entrepreneurial intentions was also significant. Therefore, hypothesis 6 (H_{06}) which stated that there is no significant indirect influence of entrepreneurial attitude in the association of entrepreneurship education and Entrepreneurial intentions was rejected. Model 4 (Table 4.25) provides the total effect ($a_1 * b_1 + C_1'$) of entrepreneurship education on Entrepreneurial intention is $\beta = .489$, p <.001. Further, results reveal that gender and parent's/guardian's career remained significant $\beta = .230$, p <.01 and $\beta = .213$, p <.01 respectively.

Table 4.25: Testing for the indirect effect

Predictors	Model 1 (Outcome EA) β	t	Model 2 (Outcome EI) β	t	Model 3 Mediation ($a_1 \times b_1$)	Model 4 (OutcomeEI) Total effect β	t
Constant	3.9446***	14.242	.882*	2.291		3.026***	8.764
Gender	.003ns	.055	.228**	3.320		.230**	3.015
Age	.003ns	.039	-.056 ns	-.611		-.055ns	-.533
Program	-.142*	-2.053	-.012 ns	-.155		-.089 ns	-1.036
parent's career	.061ns	.962	.180*	2.529	.405×.544	.213**	2.701
E/ship education	.405***	10.918	.269***	5.622	=.220	.489***	10.564
E/ship Attitude			.544***	9.457		-	-
R Square	.245		.412			.274	
F	24.789***		44.555***		CI= .152,.294	28.890***	

Note: *$p<.05$, **$p<.01$, ***$p<.001$, ns = not significant, EA=Entrepreneurial attitude, EI= Entrepreneurial Intention, EE = Entrepreneurship education

4.12.4 Testing for moderation and moderated mediation

Conditional process analysis was done using PROCESS macro vs3.2 (Model 15) to test for the moderating effects (Hayes, 2018). The first interaction determined the conditional impact of Entrepreneurial self-efficacy on the link between Entrepreneurial attitude and entrepreneurial Intentions while the second interaction examined whether entrepreneurial self-efficacy had a moderating influence on the connection between entrepreneurial education and entrepreneurial inclinations. The model produced an R square of .468 implying that it accounted for 46.8 percent variance. For the covariates, its only gender and parent's career that were significant at $\beta = 176$, CI= .045, .307, and $\beta = .149$, CI= .014, .283 respectively. Results further showed that Entrepreneurial Education, Entrepreneurial Attitude, and Entrepreneurial Self-efficacy have a positive

and significant direct impact on Entrepreneurial intentions. β =.133, CI= .032, .234, β =.422, CI= .307, .537, β =.315, CI= .206, .424 respectively. Also, results show that the conditional influence of entrepreneurial self-efficacy on Entrepreneurial attitude and Entrepreneurial Intentions was significant since zero is non-inclusive in the confidence interval β =-.201, CI= -.342, -.059. Besides, moderating impact of entrepreneurial self-efficacy on the association of entrepreneurial education and Entrepreneurial intentions was not significant due to the zero inclusiveness in the confidence interval β =.033, CI= -.0792, .144. Lastly, the conditional indirect effect of entrepreneurial self-efficacy on the link between entrepreneurship education and Entrepreneurial intentions through entrepreneurial attitude was significant β =-.081, SE=.038, CI= -.158, -.008 as shown in table 4.26 below;

Table 4.26: Moderations and Moderated mediation effects

Predictors	Coeff.	SE	T	P	LLCI	ULCI
Constant	6.122	.207	29.539	.000	5.715	6.530
Gender	.176	.067	2.643	.009	.045	.307
Age	-.133	.089	-1.483	.139	-.308	.043
Program	-.026	.075	-.342	.732	-.173	.121
parent's career	.149	.068	2.176	.030	.014	.283
EE	.133	.051	2.585	.010	.032	.234
EA	.422	.058	7.216	.000	.307	.537
ESE	.315	.055	5.682	.000	.206	.424
Int_1 EA x ESE	-.201	.072	-2.784	.006	-.342	-.059
Int_2 EE x ESE	.033	.057	.577	.565	-.079	.144
Moderated mediation	-.081	.038	-	-	-.158	-.008
R^2	0.468					
F	36.971***					

Note:*p<.05,**p<.01,***p<.001, EE =Entrepreneurship Education, ESE= Entrepreneurial self-Efficacy, EA = Entrepreneurial Attitude

To better understand the nature of the moderations, the impact of Entrepreneurial attitude on Entrepreneurial Intentions at different values of Entrepreneurial self-efficacy was explored as shown in table 4.27 below. Results demonstrate that; at low levels of Entrepreneurial self-efficacy that is one standard deviation below the mean, the influence of Entrepreneurial attitude on Entrepreneurial intentions was not

significant β =.108, CI = -.027, .243 while at high levels of Entrepreneurial self-efficacy is one standard deviation above the mean, the impact of Entrepreneurial attitude on Entrepreneurial intentions was significant β =.158, CI= .028, .288.

Table 4.27: Conditional direct effect(s) of X on Y at values of the moderator(s):

ESE	Effect	SE	T	P	LLCI	ULCI
-.768	.108	.069	1.570	.117	-.027	.243
.000	.133	.051	2.585	.010	.032	.234
.768	.158	.066	2.393	.017	.028	.288

Similarly, at low levels of entrepreneurial self-efficacy, the indirect effect of entrepreneurship education on Entrepreneurial intentions via entrepreneurial attitude was high and significant β =.233, CI= .145, .333 as compared to when entrepreneurial self-efficacy was moderate and high β =.171, SE=.034, CI= .110, .244 and β =.109, SE=.042 CI= .035, .196 respectively see table 4.28 below;

Table 4.28: Conditional indirect effect(s) of X on Y at values of the moderator(s):

Mediator	ESE	Effect	Boot SE	Boot LLCI	Boot ULCI
E/Attitude	-.768	.233	.047	.145	.333
E/Attitude	.000	.171	.034	.110	.244
E/Attitude	.768	.109	.042	.035	.196

Table 4.29: Hypothesis Testing

	Hypotheses	Beta	P-value	T	CI	Decision
H_{01}	Entrepreneurship Education has no significant effect on Entrepreneurial Intentions	.489	.000	10.564	-	Rejected
H_{02}	Entrepreneurial Attitude has no significant effect on Entrepreneurial Intentions	.544	.000	9.457	-	Rejected
H_{03}	Entrepreneurial self-efficacy has no significant effect on Entrepreneurial Intentions	.302	.000	5.402	-	Rejected
H_{04}	Entrepreneurship Education has no significant effect on entrepreneurial attitude	.405	.000	10.918	.332, 478	Rejected
H_{05}	Entrepreneurial Attitude has no mediating effect on the relationship between Entrepreneurship Education and Entrepreneurial Intentions	.220	-	-	.153, .294	Rejected
H_{06}	Entrepreneurial self-efficacy has no moderating effect on the relationship between Entrepreneurial Attitude and Entrepreneurial intentions	-.201	.006	-2.784	-.342, .059	Rejected
H_{07}	Entrepreneurial self-efficacy has no moderating effect on the relationship between Entrepreneurship Education and Entrepreneurial Intention	.033	.565	.577	-.079, .144	Failed to reject
H_{08}	Entrepreneurial self-efficacy has no conditional indirect effect on the relationship between Entrepreneurship Education and Entrepreneurial Intentions through entrepreneurial attitude	-.081	-	-	-.158, .008	Rejected

Source: *Research data (2020)*

4.13 Discussion of Research Findings

To test the study hypotheses, several statistical analyzes were carried out. For instance, hierarchical multiple regression models, mediation analysis, moderation, and moderated mediation analyzes were performed and presented above. The study hypotheses were assessed using p-values, t-tests, and confidence intervals at a 5% level of significance. The magnitude of an independent or set of predictor variables' influence on the outcome variable is indicated by the size of the beta coefficient. The study findings are discussed in line with the literature, empirical results, and the theories that are presented in chapter two. These provide explanations for why the hypotheses are rejected or not rejected.

4.13.1 Impact of Entrepreneurship Education on Entrepreneurial Intentions

The initial target was to see how entrepreneurship education affected students' entrepreneurial intentions**.** Therefore, it was hypothesized that Entrepreneurship training has no statistically significant impact on Entrepreneurial Intents (H_{01}). However, results indicate that entrepreneurial education significantly and positively influences Entrepreneurial intentions ($\beta=.489$, $p<.001$) thus rejecting the hypothesis. This means that for every unit increase in Entrepreneurship Education, students' entrepreneurial aspirations grow by.489. By students attending an entrepreneurial course, they can recognize Entrepreneurship as a career alternative to paid employment. Their ability to perceive and recognize a business opportunity in a wider environment is enhanced which ultimately enhances their readiness to pursue Entrepreneurship.

These results coincide with previous research that has investigated students' Entrepreneurial intentions. For instance, Rasmussen and Sørheim (2006) studied five Swedish universities in which they found Entrepreneurial course has an influence on

Entrepreneurial behavior through new start-ups. It was also argued that participants of entrepreneurial courses might replicate the entrepreneurial process several times during their working careers, by creating new enterprises, new products within existing enterprises, operating their enterprises more professionally, or aiding other entrepreneurs. Similarly, Mahendra *et al*. (2017) established that participation in entrepreneurship training provides Knowledge of venture creation and confidence to venture which ultimately results in the formation and sustainable new ventures.

Therefore, the study findings are not standalone due to the similar results that have been established by previous research. Given that entrepreneurial training equip participants with entrepreneurial competencies, it is not surprising that a positive and significant impact of Entrepreneurial training on Entrepreneurial Intents was found. Thus, student's entrepreneurial mindsets can be prepared through entrepreneurial training. This argument is in agreement with Puni *et al*. (2018a) who claim that students' intentions to become entrepreneurs can be enhanced by changing their attitudes through entrepreneurship education.

Entrepreneurship training, according to Farashah (2013) fosters a favorable societal norm for entrepreneurs by displaying their social position and portraying an entrepreneurial profession as a desired vocation. This may be accomplished by raising self-efficacy by presenting the essential information and skills for establishing a firm, as well as raising perceptions of the feasibility of entrepreneurship. Entrepreneurship training triggers trainees' cognitions to perceive that they can start and launch a business, in turn, this enhances their Entrepreneurial intention (Boukamcha, 2015).

However, the study results contradict some previous studies that found a negative or no significant association between entrepreneurial education and entrepreneurial

intentions. According to Nowiński *et al*. (2019), mixed results were reported in the study of university students from the Visegrad countries. Only one of the four nations, Poland, had a direct positive and significant benefit from entrepreneurial training. Similarly, Vanevenhoven and Liguori (2013) studied students all over the world. Except in the Middle East, where the results were negative, participation in Entrepreneurship Training is strongly and favorably related to entrepreneurial goals.

Based on these findings, it is reasonable to conclude that the impact of entrepreneurial education on entrepreneurial intentions differs depending on the circumstances. This is because research conducted in different circumstances utilizing the same methodology has produced disparate outcomes. This difference could be attributed to the degree of environmental influences and experiences such as prior family business practice. In a context where these influences and experiences are positive, they report no significant effect of entrepreneurship education on Entrepreneurial intentions because participants would have acquired entrepreneurial knowledge and skills through the family business and entrepreneurial experience. (see; Mahendra *et al*., 2017; Michelle &Tendai, 2016; Joensuu *et al*., 2013; Nabi *et al*., 2010).

Consequently, it is not by coincidence that this research reports a positive and significant impact of Entrepreneurial training on Entrepreneurial intents since the majority of the participants in the study were direct entry students and given that family business experience which could have had an impact on Entrepreneurial intentions was controlled during data analysis.

4.13.2 Impact of Entrepreneurial Attitude on Entrepreneurial Intentions

The researcher also wanted to see if there was a link between entrepreneurial attitude and entrepreneurial intentions. Therefore, it was hypothesized that Entrepreneurial

Attitude has no significant impact on Entrepreneurial Intentions *(H_{02})*. The proposition was not supported since positive and significant results were found (β=.544, p<.001). This suggests that a unit improvement in students' entrepreneurial attitude would lead to .544 increases in their Entrepreneurial intentions. The study findings confirm the argument that in studies relating to behavioral intentions, attitude explains over 50 percent of the variance in intentions (Krueger *et al*., 2000). The high influence of attitude on any behavioral intention including Entrepreneurial intentions is attributed to it being an immediate antecedent as postulated in the theory of planned behavior (Ajzen, 1991a, 2001).

A body of empirical literature exists in support of the study findings. A case in point, the study of Alharbi *et al*. (2018) among higher education students in Saudi Arabia found that attitude toward Entrepreneurship was the main predictor of students' Entrepreneurial Intentions compared to other study variables like Entrepreneurship education. Similarly, Usman (2019) studied Entrepreneurial Intention among international students in Turkey using Ajzen's theory of planned behavior (TPB) as the explaining model. Not different from the current study, results notify that the Personal Attitude of international students in Turkey generally show high mean scores as compared to other TPB constructs.

In line with the study findings, Tognazzo *et al*. (2017) also found that personal attitude greatly affected Entrepreneurial intentions among university students in Italy. Such a relationship is found true when students perceive Entrepreneurship as desirable and attractive as stressed in the Entrepreneurial event model (Krueger *et al*., 2000; Ngugi *et al*., 2012) since intention relies on motivational factors whereby attitude informs motivation (Farrukh *et al*., 2018). Under this circumstance, students develop

Entrepreneurial intentions since an Entrepreneurship career is perceived as favorable, rewarding, and important thus creating their entrepreneurial enterprises.

According to Saraih *et al*. (2018), attitude toward a behavior is the first predictor of that behavior, and in general, the greater the individual's purpose to conduct the activity, the more favorable the attitude toward the act is. For example, Robledo *et al*. (2015) presented that Spanish university students with a favorable attitude towards creating a new firm were inclined to become entrepreneurs once they completed school. Besides, Mat *et al*. (2015) empirically found that engineering technology students have high attitudes towards entrepreneurship compared to other factors such as support and resistance, locus of control, and need for achievement concerning Entrepreneurial Intentions. Also, in a related study, the attitude of engineering students is found more significant` contributing to their Entrepreneurial Intention. In the same study interesting results show that engineering students despite their perceived higher levels of innovativeness, attitudes critically attribute to determining Entrepreneurial Intention than other factors (Law & Breznik, 2017).

Ayalew and Zeleke (2018) studied Entrepreneurial Attitudes and Entrepreneurial Intentions of engineering undergraduates from Ethiopia and established that Entrepreneurial Attitudes significantly predict student's Entrepreneurial Intentions. Mijoč *et al*. (2016) also contend that Entrepreneurial Intentions are affected mostly by beliefs and attitudes. Still, in the study of Bahadur and Shah (2015), a strong association was found between Entrepreneurial Intentions and attitudes. Therefore, this study stresses that Entrepreneurial Attitude conceptualized as a personal attitude in TPB and perceived desirability in the entrepreneurial event model is an essential character in shaping Entrepreneurial Intentions.

4.13.3 Impact of Entrepreneurial self-efficacy on Entrepreneurial Intentions

The third objective aimed at establishing the impact of Entrepreneurial self-efficacy on Entrepreneurial Intentions. This objective was guided by a null hypothesis which stated that; "Entrepreneurial self-efficacy has no significant effect on Entrepreneurial Intentions". From the hierarchical regression results in the fourth model, table 4.24 entrepreneurial self-efficacy is a positive and statistically significant determinant of Entrepreneurial intentions (β=.302, p<.001) thus, the hypothesis was not supported though the objective was attained. Findings demonstrate that a unit improvement in entrepreneurial self-efficacy brings about .302 improvements in students' Entrepreneurial intentions. Therefore, when people feel confident of their entrepreneurial abilities say; confident of their business ideas and abilities to start new ventures, their Entrepreneurial intentions will be high.

Findings are in agreement with past researchers, for example, Shahab *et al*. (2019) in student samples from China and Spain, a similar consistent link between entrepreneurial self-efficacy and entrepreneurial goals was discovered. They further stated that entrepreneurial self-efficacy plays a vital role in deciding whether persons select entrepreneurial jobs and participate in business activities. Similarly, the findings support the social cognitive theory, which claims that high self-efficacy indicates stronger intellectual capacity, strategic orientation, and environmental management effectiveness (Bandura, 1997a) which are necessary for undertaking Entrepreneurship. Relatedly, Akmaliah and Hisyamuddin (2009), studied secondary school students' Entrepreneurial Intentions based on the Theory of Planned Behavior and established a positive association between Entrepreneurial self-efficacy and Entrepreneurial Intent. This is in line with Newman *et al*. (2019) who claim that self-efficacy is aimed toward a specific action or goal, such as one's profession or creative work. Besides, Yıldırım

et al. (2016) found that students who have both high self-efficacy and strong ambitions are more likely to engage in entrepreneurship in the future.

These assertions are further verified by the current study and empirical studies like Moralista and Delariarte (2014) in the study of undergraduate students in Turkey, discovered that students with high entrepreneurial confidence have great entrepreneurship career growth, which translates into better entrepreneurial intentions. Additionally, Wang *et al*. (2016) suggest that the impact of efficacy on conviction was significantly stronger than that on preparation which are dimensions of Entrepreneurial Intentions among agricultural college students in central Taiwan. To add on, Baluku *et al*. (2018) also found a positive impact of self-confidence on Entrepreneurial intents in their effort to explore the interactive effect of internal locus of control and culture on the link between entrepreneurial attitudes and entrepreneurial intentions.

Since self-efficacy is a strong predictor of positive work-related outcomes (Chen, 2015; Esfandiar *et al*., 2019; Schmutzler *et al*., 2018; Wang *et al*., 2016), and the assumption that the theoretical grounds of social-cognitive theory lend support to the drive of innovators and the association of self-efficacy and Entrepreneurial Intentions. It is not astonishing that the study results are in harmony with both empirical literature and socio-cognitive theory. As a result, when a person feels that the prerequisites for entrepreneurship are above his or her capabilities, he or she is more likely to dismiss entrepreneurship as a feasible career option.

4.13.4 Impact of Entrepreneurship Education on Entrepreneurial Attitude

To determine the effect of Entrepreneurial training on entrepreneurial attitude which was objective four, it was assumed that Entrepreneurial Education has no significant impact on entrepreneurial attitude *(H04)*. Results in model1 indicate that

entrepreneurship education has a significant positive influence on entrepreneurial attitude (β=.405, p<.001). This suggests that every additional unit of entrepreneurship training leads to a .405 rise in entrepreneurial attitude. Thus, null hypothesis 5 was rejected. Given that the main purpose of any training is to shape attitudes, and skills, and provide knowledge. It is not shocking to report that entrepreneurial course influences entrepreneurial attitudes.

Past research shows that entrepreneurship education is an appropriate intervention to improve the entrepreneurial behaviors of both future and emerging entrepreneurs. For instance, Tshikovhi and Shambare (2015) high levels of entrepreneurship have been observed among South African students to affect favorable attitudes towards entrepreneurship. Relatedly, Hattab (2014) found that entrepreneurial training has a positive impact on university students' entrepreneurial behaviors like starting a new business in a study of the effect of entrepreneurship training on university students' entrepreneurial intentions to start a new business. The study results are in line with Welsh *et al*. (2016) who established that entrepreneurial training significantly improves the attitudes of students toward a choice of entrepreneurial career in the United States.

Also, the study results are in agreement with Alharbi *et al*. (2018) who established that Entrepreneurship Education significantly improves attitudes toward Entrepreneurship after comparing two groups that is one pursuing entrepreneurship courses with one which did not. Accordingly, Fayolle and Gailly (2015) reveal that entrepreneurship program significantly impacts the attitude of students that have never been exposed to entrepreneurship and that the impact persists for only six months after the program. At the same time, Shinnar, Hsu, and Powell (2014) on the other hand claim that entrepreneurship programs are a source of trigger events that encourage students to

develop entrepreneurial mindsets. The study further is in agreement with the social cognitive theory which asserts that learning enables students to acquire knowledge, attitudes, values, emotional inclinations, and skills through a wealth of information transmitted through an entrepreneurial course (Bandura, 2002).

According to Packham *et al*. (2010) despite the disparities in the impact of entrepreneurship training on the entrepreneurial attitudes of male and female students in France and Poland, both found significant and favorable impacts. Just like the current study, Nabi *et al*. (2008) urge that entrepreneurial training provides students with a direct opportunity to gain real business experience through contact with local entrepreneurs, thereby influencing their entrepreneurial attitude.

Furthermore, Gibson *et al*. (2011) point out that students with entrepreneurial backgrounds report a more positive impact on the development of entrepreneurial attitudes compared to community college students when undergoing entrepreneurial education at different levels of institutions, although both groups report similar results. Entrepreneurial training, according to, Farashah (2013) increases the desirability of entrepreneurship by changing attitudes towards entrepreneurship which reduces fear of failure and increases the perception of opportunities in the environment. This suggests that entrepreneurial course has a significant impact on students' perceptions of entrepreneurship as a viable career option.

4.13.5 Indirect influence of Entrepreneurial Attitude on the association of Entrepreneurship Education and Entrepreneurial Intentions

To examine the indirect impact of Entrepreneurial Attitude in the association of Entrepreneurial training and Entrepreneurial Intent was the study's fifth objective. It was therefore hypothesized that Entrepreneurial Attitude has no indirect impact on the

link between Entrepreneurial Education and Entrepreneurial Intentions *(H₀₅)*. Bootstrapped results demonstrate that the mediating impact of entrepreneurship education on Entrepreneurial intention via entrepreneurial attitude was statistically significant since the confidence intervals (CI) were none zero (a×b), β =.220, SE =.036, 95% CI = .152 to .294 as shown in table 4.25, model 3. This implies that entrepreneurship education influences Entrepreneurial intentions through entrepreneurial attitude by 44.99 percent as 55.01 percent is the direct influence of entrepreneurship education on Entrepreneurial intentions, this means partial mediation. Thus, the hypothesis was not supported.

The empirical literature on entrepreneurial attitude indicates that students' participation in entrepreneurial courses results in the development of a positive attitude towards entrepreneurship (Alharbi *et al*., 2018; Ebewo *et al*., 2017; Welsh *et al*., 2016). Similarly, researchers have established that when students evaluate Entrepreneurship as being desirable, the intention to engage in Entrepreneurship practice will be high (Ajzen, 2011; Ayalew & Zeleke, 2018; Kolvereid, 2016; Law & Breznik, 2017). It is, therefore, argued in this study that when students participate in any entrepreneurial training, they would start positively evaluating Entrepreneurship in terms of being rewarding, a success, beneficial, and important for them. Thus, their intentions will develop.

To reflect on past research, there exists limited research that has studied mediating impact of attitude. For instance, (Abdullahi *et al*., 2017; Krasniqi, 2009; Shamsudin *et al*., 2017) have discovered a negative effect of entrepreneurship education on entrepreneurial intentions, implying that as one's education level rises, so does one's desire to become an entrepreneur. Therefore, entrepreneurship education does not directly guarantee an improvement in entrepreneurial intentions unless when

entrepreneurship education is geared towards the stimulation of entrepreneurial attitude through which it influences Entrepreneurial intentions (Miralles & Riverola, 2012).

Furthermore, Ambad and Damit (2016) suggest that personal attitudes interact with social norms in determining a person's desire to start a business. In support of the study results, Miralles and Riverola (2012) claim that entrepreneurship education does not directly guarantee the development of Entrepreneurship unless when entrepreneurship education is geared towards the stimulation of entrepreneurial attitude through which it influences Entrepreneurial intentions.

To be more specific to the current study, Gorgievski *et al*. (2018) found that attitudes mediate the effect of values on entrepreneurial career intentions among students from Spain, Dutch, German, and Poland. This mediating effect was further discovered by Mahendra *et al*. (2017) who argued that Entrepreneurial Attitude is a pathway through which Entrepreneurship Education determines Entrepreneurial Intentions. Attitude toward becoming a social entrepreneur mediates the relationship not only between self-efficacy and social Entrepreneurial Intentions but also emotional intelligence among Engineering students (Tiwari *et al*., 2017).

4.13.6 Moderating impact of Entrepreneurial Self-efficacy on the association of Entrepreneurial Attitude and Entrepreneurial intentions.

It was also hypothesized that Entrepreneurial self-efficacy has no moderating impact on the link between Entrepreneurial Attitude and Entrepreneurial intentions. This was guided by the research objective "To determine the moderating effect of Entrepreneurial self-efficacy on the relationship between Entrepreneurial Attitude and Entrepreneurial Intentions". Results indicate that the conditional impact of entrepreneurial self-efficacy on Entrepreneurial attitude and Entrepreneurial Intentions

was negative and significant since zero is non-inclusive in the confidence interval β = -.201, SE= .072, CI= -.342, -.059.

This implies that at low levels of entrepreneurial self-efficacy, the effect of entrepreneurial attitude on Entrepreneurial intentions is insignificant whereas under circumstances where students have high levels of entrepreneurial self-efficacy the effect of entrepreneurial attitude on Entrepreneurial intentions is significant. Therefore, when students have confidence in their entrepreneurial abilities, stimulation of their entrepreneurial attitude will have less effect on Entrepreneurial intentions than when their entrepreneurial self-efficacy is low. Against this backdrop, the current study argues that further stimulation of entrepreneurial attitudes for students with high entrepreneurial self-efficacy highlights the challenges associated with Entrepreneurship which reduces their intentions to engage in Entrepreneurship practice.

The study results coincide with a few empirical efforts in this area, for instance, Farashah (2013) asserts that efforts to enhance students' attitudes towards entrepreneurship may activate their perceived fear of failure than perceived opportunity recognition. And the fear of failure is a persistently negative and significant predictor of the chances of starting a business (Arenius & Minniti, 2005). To add on, Peng, Liu, and Lin (2015) established that entrepreneurial self-efficacy is found to be a negative moderator of the association between environmental hostility and flexibility. Also, the association between environmental hostility and flexibility is negatively moderated by entrepreneurial self-efficacy (Hmieleski & Baron, 2008)

For further discussion, the study results have been compared with research from related fields concerning the conditional impact of self-efficacy. However, results disagree with Ahlin *et al*. (2014) who revealed that entrepreneurial self-efficacy positively and

significantly moderates the association between an entrepreneur's creativity and firm innovation. Similarly, Yang *et al*. (2016) report that social self-efficacy positively moderates the association between mobile social networking services enjoyment and mobile social networking sservices'high engagement. Therefore, due to the scarce literature in this area, this study provides new insights and knowledge on the moderating impact of entrepreneurial self-efficacy on the connection between entrepreneurial attitudes and Entrepreneurial intentions

4.13.7 Moderating impact of Entrepreneurial Self-efficacy on the association between Entrepreneurship Education and Entrepreneurial Intentions

To analyze the moderating impact of Entrepreneurial self-efficacy on the association between Entrepreneurship Education and Entrepreneurial Intentions, it was hypothesized that Entrepreneurial self-efficacy has no conditional impact on the link between Entrepreneurship Education and Entrepreneurial Intention. The study provides insignificant findings due to the zero inclusiveness in the confidence interval β =.033, SE=.057, CI= -.0792, .144. These findings mean that entrepreneurial self-efficacy has no moderating impact on the correlation between entrepreneurship education and entrepreneurial intentions. This is because whether students have entrepreneurial self-efficacy or not, they would still need entrepreneurial training for more entrepreneurial competencies in terms of opportunity recognition, and risk-taking which are very necessary for prospective entrepreneurs like university finalists.

In contrast with past studies, Joensuu *et al*. (2013) assert that students will only develop Entrepreneurial intentions when they believe that entrepreneurship education equips them with the necessary competencies to undertake entrepreneurial endeavors. Similarly, Ahlin *et al*. (2014) reveal that entrepreneurial self-efficacy moderates the correlation between an entrepreneur's creativity and firm innovation. Similarly, Yang

et al. (2016) report that social self-efficacy positively moderates the relationship between mobile social networking services enjoyment and mobile social networking service high engagement. Relatedly, Chen (2015) also finds that general self-efficacy has an enhancing conditional impact, it amplifies the indirect association between leader support and employee innovative behavior through intrinsic motivation.

4.13.8 The Conditional indirect influence of Entrepreneurial self-efficacy on the link between Entrepreneurship Education and Entrepreneurial Intentions via Entrepreneurial attitude.

The study's ultimate objective was to look at how Entrepreneurship Education and Entrepreneurial Self-Efficacy affected Entrepreneurial Intentions via Entrepreneurial Attitude in a moderated way. This was guided by the hypothesis; through entrepreneurial attitude, entrepreneurial self-efficacy has no conditional indirect impact on the correlation between Entrepreneurship Education and entrepreneurial intentions. Findings demonstrate that the conditional indirect impact of entrepreneurial self-efficacy on the link between entrepreneurship education and entrepreneurial intentions through entrepreneurial attitude was significant (β = -.081, SE=.038, CI= -.158, -.008).

Furthermore, results demonstrate that the impact of entrepreneurial training on entrepreneurial intent through entrepreneurial attitude strengthens with a reduction in students' entrepreneurial self-efficacy. Such that at low levels of entrepreneurial self-efficacy, the conditional indirect impact of entrepreneurship education on entrepreneurial intentions is high and significant β =.233, CI= .145, .333. Whereas at high levels of entrepreneurial self-efficacy, the effect of entrepreneurship education on entrepreneurial intentions through entrepreneurial attitude decreases β =.109, SE=.042 CI= .035, .196.

Therefore, this study argues that for students with strong entrepreneurial self-efficacy before an entrepreneurial course, their level of Entrepreneurial aspiration is less influenced by the entrepreneurship course compared to those with low entrepreneurial confidence. This is because entrepreneurial self-efficacy could have been attained through observing others perform entrepreneurial tasks, participating in running family businesses, and through entrepreneurial training at the high school level. By so doing, students acquire entrepreneurial competencies and mindsets which shape their Entrepreneurial intentions.

The study interpretation is consistent with Joensuu *et al*. (2013) assertion that students will only develop Entrepreneurial intentions when they believe that entrepreneurship education equips them with the necessary competencies to undertake entrepreneurial endeavors. According to Chen (2015), self-efficacy plays an enhancing conditional impact, such that it amplifies the indirect correlation between leader support and employee innovative behavior via intrinsic motivation. Such results are not different from Brown *et al.,* (2001) who discovered that self-efficacy moderated information seeking and self-regulatory, such that high-self-efficacious employees were able to use the combination of inquiry and monitoring to clarify role expectations effectively, whereas low-self-efficacious employees were not. As a result, the study is the first to show that entrepreneurial self-efficacy has a conditional indirect influence on the association between entrepreneurship education and entrepreneurial intentions via entrepreneurial attitude.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a summary of the study findings in line with the study hypotheses that were tested. It also entails the study's conclusions and implications for practice and theory as well as recommendations for future research.

5.1 Summary of Research Findings

Eight research objectives guided this research, of which seven were attained and only one was not achieved. The first objective sought to establish the impact of Entrepreneurial training on Entrepreneurial Intentions. This objective was attained since a significant positive impact of Entrepreneurial training on Entrepreneurial Intent was determined (β =.489, t = 10.564, p =.000). Therefore, the hypothesis, which stated that Entrepreneurial training has no significant impact on Entrepreneurial intentions, was rejected. Similarly, the second objective sought to determine the impact of Entrepreneurship Attitude on Entrepreneurial Intentions. According to the findings, Entrepreneurial attitude has a significant positive influence on entrepreneurial intentions (β=.544, t = 9.457, p =.00000). Thus, the hypothesis that Entrepreneurial Attitude has no significant impact on Entrepreneurial Intentions was not supported.

Thirdly, the study aimed at examining the impact of Entrepreneurial self-efficacy on Entrepreneurial intentions. Nonetheless, this study was successful in meeting this goal, as a strong significant positive impact was found (β =.302, t = 5.402, p =.000). Consequently, the hypothesis that Entrepreneurial self-efficacy does not significantly impact Entrepreneurial Intentions was not supported.

Determining the impact of Entrepreneurial training on Entrepreneurial Attitude was the fourth objective. This goal was met because there was a strong and significant positive impact of entrepreneurial training on entrepreneurial attitude (β =.405, t = 10.918, p =.000). For that reason, the hypothesis that Entrepreneurship Education has no significant influence on entrepreneurial attitude was not held up.

Besides, objective five was to examine the mediating impact of Entrepreneurial Attitude in the association between Entrepreneurial Training and Entrepreneurial Intentions. Accordingly, it was hypothesized that Entrepreneurial Attitude has no mediating impact on the connection between Entrepreneurial Training and Entrepreneurial Intentions. The hypothesis was rejected because a partial mediating effect of entrepreneurial attitude between entrepreneurial training and entrepreneurial intentions was discovered (β =.220, CI =.153,.294).

Objective six was to determine the moderating effect of Entrepreneurial Self-efficacy on the relationship between Entrepreneurship Education and Entrepreneurial Attitude. Therefore, it was hypothesized that Entrepreneurial Self-efficacy has no moderating effect on the relationship between Entrepreneurial Attitude and Entrepreneurial intentions. This research objective was attained, and the hypothesis was rejected since the result was significant (β =-.201, P=.006, t=-2.784, CI = -.342, -.059).

Objective seven was to analyze the moderating impact of Entrepreneurial Self-efficacy on the association between Entrepreneurial training and Entrepreneurial Intentions. This was not achieved because the results were not statistically significant (β =.331, P =.565, t =.577, CI = -.079, .144). Consequently, the study failed to reject the hypothesis stated that Entrepreneurial Self-efficacy has no moderating influence on the link between Entrepreneurial training and Entrepreneurial Intention

Finally, objective eight examined the moderated mediation impact of Entrepreneurship education and Entrepreneurial Self-efficacy on Entrepreneurial Intention through Entrepreneurial Attitude. This was guided by the hypothesis that "Entrepreneurial self-efficacy has a conditional indirect impact on the association between Entrepreneurship Education and Entrepreneurial Intentions through entrepreneurial attitude." This objective was attained, and the hypothesis was rejected since a significantly moderated mediation was established. (β =-.081, CI = -.158, -.008).

5.2 Conclusion

After summarizing the results in the preceding section, the following conclusions were made concerning the research objectives: The first objective aimed at establishing the influence of entrepreneurship education on entrepreneurial intentions. Results indicate that entrepreneurship education positively influences entrepreneurial intentions. These results resonate with Gerba (2012), who reports that students who participated in Entrepreneurial training have better Entrepreneurial intentions than their counterparts who did not. As well, Ebewo *et al.* (2017) assert that participating in Entrepreneurship training positively influences the student's desire to become an entrepreneur. Therefore, we conclude that an entrepreneurial course critically contributes to the development of students' entrepreneurial intentions. There is a need to emphasize the teaching of entrepreneurship as a way of empowering students with entrepreneurial abilities and preparing them to take on entrepreneurship as a career alternative.

The second objective sought to establish the influence of entrepreneurial attitudes on entrepreneurial intentions. Findings reveal that entrepreneurial attitude is a key determinant of entrepreneurial intentions as compared to other study predictors. Such results are in agreement with the theory of planned behavior, which asserts that for any behavior, attitude predicts over 50% of that behavior (Ajzen, 1991a; Krueger *et al.*,

2000; Shapero & Sokol, 1982b). Further, our findings are supported by empirical evidence where personal attitude has been found to positively influence entrepreneurial intentions (Bahadur & Shah, 2015; Kolvereid, 2016; Mahendra *et al.,* 2017). Against this backdrop, this study concludes that there is a need to enhance students' preference for entrepreneurship as a tool to develop their entrepreneurial intentions. By so doing, students will develop an interest and passion for entrepreneurship, thus choosing it as their career option.

The third objective aimed at establishing the influence of entrepreneurial self-efficacy on entrepreneurial intentions. According to the study findings, Entrepreneurial self-efficacy was found to be significantly influencing students' Entrepreneurial intentions. These results concur with Piperopoulos and Dimov's (2015) argument that students who believe in their abilities have stronger entrepreneurial intentions. That the process of transforming the idea into reality requires self-trust and confidence, otherwise any sense of doubt in their abilities results in low or no readiness to carry on entrepreneurship (Shahab *et al.,* 2019). To this end, there is a need to enhance students' abilities to the point where they feel they are equipped enough with the necessary competencies to undertake entrepreneurship. Therefore, when students believe that they can successfully start their businesses and can overcome business start-up challenges, this will increase their chances of pursuing Entrepreneurship.

The fourth objective aimed at examining the influence of entrepreneurship education on entrepreneurial attitudes. Results reveal that entrepreneurship education positively influences entrepreneurial attitudes. Our findings are supported by Welsh *et al.* (2016), who established that entrepreneurial training enhances a positive student's attitude toward the choice of an entrepreneurial career in the United States. In the same vein, Alharbi *et al.* (2018) reveal that the entrepreneurial attitude of students that

undertook an entrepreneurial course was higher compared to their counterparts who did not. Findings are further supported by the social cognitive theory, which asserts that learning enables students to acquire the right knowledge, attitudes, values, emotional inclinations, and skills through a wealth of information transmitted through training (Bandura, 2002).

The study, therefore, concludes that an entrepreneurial course increases students' perception of entrepreneurship's desirability by developing an entrepreneurial mindset. This is because entrepreneurship education prepares participants to undertake risks and increases their ability to perceive and exploit business opportunities in the environment. Thus, Entrepreneurship training is important in developing students' entrepreneurial mindsets. Therefore, universities should use entrepreneurship courses as catalysts to motivate students to pursue entrepreneurship.

The fifth objective sought to examine the mediating impact of entrepreneurial attitude in the relationship between entrepreneurship education and entrepreneurial intentions. Results demonstrate that Entrepreneurial attitude has a partial indirect influence in this relationship, such that the indirect effect of entrepreneurship education on entrepreneurial intentions is higher than the direct effect. Hence, entrepreneurial attitude is a conduit through which entrepreneurship education influences entrepreneurial intentions. In line with the study findings, Gorgievski *et al.,* (2018) established that attitude mediates the relationship between values and career intentions among students from four European countries. Relatedly, Tiwari *et al.* (2017) reveal that attitude is a mechanism through which self-efficacy and emotional intelligence influence the social entrepreneurial intentions of students. It is therefore concluded that to better realize students' entrepreneurial intentions, entrepreneurship education should be geared towards inculcating an entrepreneurial mindset among students. Aside from

providing entrepreneurial knowledge and skills, the course should focus on how to develop an entrepreneurial mindset in students. When students participate in the entrepreneurial course, they start positively evaluating it as rewarding, successful, beneficial, and important for them. Thus, either directly through entrepreneurial training or indirectly through an entrepreneurial attitude, students' entrepreneurial intentions will grow.

The sixth objective sought to determine the moderating influence of entrepreneurial self-efficacy in the relationship between entrepreneurial attitude and entrepreneurial intentions. According to the findings, entrepreneurial self-efficacy has an antagonistic moderating effect. Our results coincide with Farashah's (2013) assertion that for students with self-confidence in their entrepreneurial abilities, enhancing their entrepreneurial attitude activates their fear of failure more than perceived opportunity recognition. Peng *et al*., (2015) also establish that entrepreneurial self-efficacy negatively moderates the relationship between environmental hostility and flexibility. We, therefore, conclude that when students have confidence in their entrepreneurial abilities, stimulation of their entrepreneurial attitude will have less impact on their entrepreneurial intentions than when their entrepreneurial self-efficacy is low. Thus, there is a need to establish the level of student preparedness to take on entrepreneurship, so that the entrepreneurial course is tailored to the student's training needs.

Lastly, the study sought to examine the moderated mediation effect of entrepreneurial self-efficacy in the relationship between entrepreneurship education and entrepreneurial intentions through entrepreneurial attitude. Findings reveal that entrepreneurial self-efficacy significantly moderates the indirect impact of entrepreneurship education on entrepreneurial intentions through entrepreneurial attitude. That is, at low levels of entrepreneurial self-efficacy, the indirect effect of

entrepreneurship education on entrepreneurial intentions via attitude is high and significant, whereas, at high levels of entrepreneurial self-efficacy, the indirect effect of entrepreneurship education on entrepreneurial intentions via attitude is low. The study, therefore, concludes that, given that students have different backgrounds, exposures, and previous learning, there is a need to assess their level of entrepreneurial intentions before exposing them to the entrepreneurial course, so that the course is customized rather than a standardized entrepreneurial course.

5.3 Implications of the Study

The findings of this study have theoretical and practical implications for researchers and policymakers who want to encourage students to become entrepreneurs. Furthermore, these implications are particularly relevant in a developing country like Uganda.

5.3.1 Theoretical implications of the study

Specifically, the study adds to the existing literature by corroborating the well-established findings that Entrepreneurship Education, Entrepreneurial Attitude, and Entrepreneurial self-efficacy have a direct influence on Entrepreneurial Intentions. This study, however, adds to the body of knowledge by performing a hierarchical regression analysis to determine the unique variance in entrepreneurial intentions explained by each predictor. Insightfully, among all the study predictors, entrepreneurial attitude happens to be the greatest predictor of entrepreneurial intentions. Such findings are scarce in the literature, as most scholars have performed simple linear regression, which does not bring out the unique variance of each independent variable. Furthermore, the study supports previous research indicating that entrepreneurial attitude mediates the relationship between entrepreneurship education and entrepreneurial intentions.

Moderation and moderated mediation are yet another methodological contribution of the current study. This appears to be the first study of its kind to look into how entrepreneurship education and attitude influence entrepreneurial intentions. Therefore, the study provides maiden evidence that Entrepreneurial self-efficacy has an antagonistic and significant moderating impact on the correlation between Entrepreneurial Attitude and Entrepreneurial Intentions. Besides, Entrepreneurial Self-efficacy does not moderate the correlation between Entrepreneurship Education and Entrepreneurial Intentions. Moderated mediation studies have received little research attention yet such results have a higher predictive potential than direct effects, mediation, and moderation (Hayes, 2018). The findings of the study add to our understanding by revealing that the indirect impact of entrepreneurship education on entrepreneurial intentions is moderated by entrepreneurial self-efficacy.

The findings support the value of the concepts of entrepreneurial attitude and self-efficacy, as defined by the Theory of Planned Behavior and Entrepreneurial Event Model, in developing entrepreneurial intentions. However, the current study introduced Entrepreneurship Education in the two models as supported by social cognitive theory to explain how the antecedents of Entrepreneurial Intentions are developed. Therefore, the study suggests that such factors should be considered in theoretical models of entrepreneurial intent. Findings support the integration of social cognitive theory, the theory of Planned Behavior, and the Entrepreneurial Event Model. It also suggests that these theories should take into consideration of the indirect effect of entrepreneurial attitude on Entrepreneurial intentions.

5.3.2 Policy implications of the study

The study will assist policymakers to design policies that facilitate graduates' entrepreneurial intention actualization. Results reveal that entrepreneurship education

is an appropriate strategy for developing future entrepreneurs since a positive and significant association between entrepreneurship education and entrepreneurial intentions was established. Therefore, a special financing program should be designed to provide start-up capital to graduates such that they are in a position to transform the entrepreneurial intentions developed from universities into reality. Otherwise, many may graduate with start-up intentions but due to inaccessibility and unfriendly financing terms, their intentions are not realized. This poses the biggest limitation that both potential and actual entrepreneurs face (Puni *et al.,* 2018b)

Taking into consideration that the study found students' attitudes towards entrepreneurship as a career option, entrepreneurship education, and entrepreneurial self-efficacy to be important antecedents of entrepreneurial intentions, policymakers should focus on strategies that cultivate an entrepreneurial mindset among the young population. To realize this, entrepreneurship education should be introduced at all educational levels, right from primary such that this career path is introduced to young people as early as possible. Otherwise, students get to know about entrepreneurship at the secondary level yet career intentions are developed right from the primary. It's therefore prudent to introduce this career alternative during their childhood such that as they think and develop career choices entrepreneurship is among them.

5.3.3 Managerial implications of the study

The study provides significant contributions to educators, university management, and curriculum developers. For example, according to the study findings, Entrepreneurial Intentions are determined by Entrepreneurship Education, Entrepreneurial Attitude, and Self-efficacy. As a result, entrepreneurship educators can use the model introduced in this study as a quantitative tool to determine the extent to which model variables

stimulate Entrepreneurial Intentions. Managers and educators can learn more about the important factors that influence entrepreneurial intentions. As a result, this model could serve as a diagnostic tool for developing an effective and efficient curriculum and pedagogy to foster entrepreneurial activities among Ugandan Youths.

Furthermore, enhancing the image of entrepreneurship as a viable career option may have an impact on students' intentions to pursue it. Universities should promote entrepreneurship by involving business role models to promote a positive image of entrepreneurship and encourage students to pursue entrepreneurial careers. To strengthen their desire to become entrepreneurs, it is critical to facilitate interaction between experienced entrepreneurs, young entrepreneurs, and students in higher education. Therefore, inviting alumni who have successfully launched their business ventures is an inspiration to current university students.

Entrepreneurial Attitude, according to this research mediated the association between Entrepreneurship training and Entrepreneurial Intents. As a result, an entrepreneurial course is an activity that facilitates the development of an entrepreneurial mindset through which entrepreneurial intentions are developed. As such, university students can gain the knowledge, skills, right attitudes, and practical experience needed for the entrepreneurial process through appropriate training, which can help them improve their entrepreneurial intent. Students' innate entrepreneurial abilities can be exercised, their entrepreneurial potential strengthened, and their entrepreneurial confidence and passion inspired, ultimately leading to willingness to pursue an entrepreneurial career.

Moderation and moderated mediation results suggest that entrepreneurial self-efficacy has an antagonistic impact on both the direct and indirect correlation between Entrepreneurship Education and Entrepreneurial Intentions. This means that where

students have confidence in their entrepreneurial potential, entrepreneurship training has a negative impact on entrepreneurial intentions, while where students' Entrepreneurial Self-efficacy is low, positive results are reported. The findings of the study explain why there are conflicting findings in the literature about the correlation between entrepreneurship courses and entrepreneurial intentions. The practical implication for such results to educators and managers is that there is a need to conduct students' entrepreneurial competence needs assessment before subjecting participants to any entrepreneurial course such that training is customized to students' knowledge gap rather than a generalized and standardized entrepreneurial course.

5.4 Contribution to knowledge

The study makes significant, contextual, methodological, and theoretical contributions to the body of knowledge.

5.4.1 Contextual contribution

Governments of developing countries have adopted entrepreneurship education as a means to promote entrepreneurship among students. In Uganda, entrepreneurship has been rolled out right from secondary schools. However, there is scant empirical evidence on the impact of entrepreneurship education on students' entrepreneurial intentions. Literature is dominated by studies from the developing and developed worlds. For instance, a systematic review by (Maheshwari *et al.,* 2022) indicates that over half of the publications in this area between 2005 and 2022 were from Asia. As such, this study makes a contextual contribution by investigating the impact of entrepreneurship education on entrepreneurial intentions in a developing country like Uganda

5.4.2 Methodological contribution

Following the disagreements in the literature concerning the influence of entrepreneurship education on entrepreneurial intentions. The study makes significant methodological contributions by performing different interactions between the study variables.

Given that the majority of previous research has concentrated on the direct impact of entrepreneurship education on entrepreneurial intentions, the current study contributes to the body of knowledge by examining the indirect influence of entrepreneurship education on entrepreneurial intentions through Entrepreneurial Attitude. The study reports a partial mediating effect, whereby the total effect of entrepreneurship education on entrepreneurial intentions is high as compared to the direct effect. As such, an entrepreneurial course aimed at creating an entrepreneurial mindset among students is more effective in stimulating entrepreneurial intentions than one focused on the provision of knowledge and skills to learners.

We performed a moderated mediation effect of entrepreneurial self-efficacy on the relationship between entrepreneurship education and entrepreneurial intentions through entrepreneurial attitude. The study provides preliminary evidence by establishing that entrepreneurial self-efficacy has an antagonistic impact on the indirect relationship between Entrepreneurship Education and Entrepreneurial Intentions. The study contributes to the debate in the literature by revealing that where students have confidence in their entrepreneurial potential, entrepreneurship training has a negative impact on entrepreneurial intentions, while where students' Entrepreneurial self-efficacy is low, positive results are reported.

5.4.3 Theoretical Contribution

Theoretically, the study adopted a multi-theoretical approach with the Theory of Planned Behavior as the main theory, complemented by the Entrepreneurial Event Model and social cognitive theory, in explaining the development of students' entrepreneurial intentions. To better understand the development of students' entrepreneurial intentions, study findings support the integration of social cognitive theory, the theory of planned behavior, and the Entrepreneurial Event Model. The social cognitive theory introduces entrepreneurship education as an antecedent to the predictors of intention as put forward by the theory of planned behavior and the entrepreneurial event model. Lastly, the study also suggests that these theories should take into consideration the indirect effect of entrepreneurial attitude on Entrepreneurial intentions.

5.5 Limitations to the study

Just like any other study, this study was limited to the following;

To begin with, we only covered entrepreneurship education in higher education, even though it is also popular in high schools and adult (non-degree and non-academic) education. The scope of this study was limited to only undergraduate finalists; thus, the findings are not generalizable to all students at different educational levels.

Secondly, the study employed a cross-sectional quantitative research design, yet entrepreneurial intentions fluctuate over time and depend on the environment that one is facing at that particular time. Therefore, the study did not reveal how entrepreneurial intentions develop over time. The study did not establish the level of students' entrepreneurial intentions before subjecting them to the entrepreneurial course. Therefore, the magnitude of entrepreneurial intentions specifically attributable to entrepreneurship education was not established.

Thirdly, the study was limited to only three predictors of entrepreneurial intentions: entrepreneurship education, entrepreneurial attitude, and self-efficacy, despite the existence of several other predictors. Factors like personal initiative, role modeling, and trigger events need to be explored.

5.6 Future Research Direction

The above study limitations have opened the door to future researchers;

Since the current study was a survey, future researchers should employ a comparative research design to examine the differences in entrepreneurial intentions among students enrolled in private and public universities, as well as between college students and university students, as well as between business and non-business students. This will give a better understanding of how entrepreneurial intentions are influenced between groups.

Relatedly, the study only focused on undergraduate students at public universities; other researchers should focus on other groups, like the non-student youth population. This will give leverage to understand the antecedents of entrepreneurial intentions for the non-student population.

Since the current study was cross-sectional in nature, future researchers will adopt longitudinal research to provide more insights into how Entrepreneurial intentions and their antecedents change over time. That is before, during, and after the Entrepreneurial course. Also, a qualitative study is needed to deepen understanding of how students' Entrepreneurial intentions and cognitions develop through participation in the Entrepreneurial course and to further strengthen the empirical analysis that uses a quantitative approach.

REFERENCES

Abdullahi, A. I., Zainol, F. A., Daud, W. N. W., & Yazid, A. S. (2017). Entrepreneurial Intention Revisited: Measuring the Impact of Socio-Cultural Business Environment using Structural Equation Modeling. *World Applied Sciences Journal, 35*(8), 1445-1456.

Aboobaker, N., & Renjini, D. (2020). Human capital and entrepreneurial intentions: do entrepreneurship education and training provided by universities add value? *On the Horizon.*

Adu, I. N., Boakye, K. O., Suleman, A.-R., & Bingab, B. B. B. (2020). Exploring the factors that mediate the relationship between entrepreneurial education and entrepreneurial intentions among undergraduate students in Ghana. *Asia Pacific Journal of Innovation and Entrepreneurship, 14*(2), 215-228. doi: 10.1108/apjie-07-2019-0052

Advocates Coalition for Development and Environment (2014). Youth unemployment and job creation in Uganda: opportunities and challenges.

Afolabi, M. O., Kareem, F. A., Okubanjo, I. O., Ogunbanjo, O. A., & Aninkan, O. O. (2017). Effect of Entrepreneurship Education on Self-Employment Initiatives among Nigerian Science & Technology Students. *Journal of Education and Practice, 8*(15), 44-51.

Ahlin, B., Drnovšek, M., & Hisrich, R. D. (2014). Entrepreneurs' creativity and firm innovation: the moderating role of entrepreneurial self-efficacy. *Small Business Economics, 43*(1), 101-117.

Ajzen, I. (1991a). The theory of planned behavior. *Organizational behavior and human decision processes, 50*(2), 179-211.

Ajzen, I. (1991b). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50, 179–211.

Ajzen, I. (2001). Nature and operation of attitudes. *Annual review of psychology, 52*(1), 27-58.

Ajzen, I. (2011). The theory of planned behavior: Reactions and reflections: Taylor & Francis.

Ajzen, I. (2013). Theory of planned behavior questionnaire. *Measurement instrument database for the social science*, 2-9.

Akanbi, S. T. (2013). *Familial factors, personality traits, and self-efficacy as determinants of entrepreneurial intention among vocational-based college of education students in Oyo State, Nigeria.* Paper presented at The African Symposium.

Akmaliah, L. P. Z., & Hisyamuddin, H. (2009). Choice Of Self-Employment Intentions Among Secondary School Students. *Journal of International Social Research, 2*(9).

Alharbi, J., Almahdi, H., & Mosbah, A. (2018). The Impact of Entrepreneurship Education Programs (EEPs) on the Entrepreneurial Attitudes among Higher Education Students. *International Journal of Management, Economics and Social Sciences, 7*(3), 245-271.

Ambad, S. N. A., & Damit, D. H. D. A. (2016). Determinants of entrepreneurial intention among undergraduate students in Malaysia. *Procedia Economics and Finance, 37*, 108-114.

Arenius, P., & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small Business Economics, 24*(3), 233-247.

Austin, M. J., & Nauta, M. M. (2016). Entrepreneurial role-model exposure, self-efficacy, and women's entrepreneurial intentions. *Journal of Career Development, 43*(3), 260-272.

Ayalew, M. M., & Zeleke, S. A. (2018). Modeling the impact of entrepreneurial attitude on self-employment intention among engineering students in Ethiopia. *Journal of Innovation and Entrepreneurship, 7*(1), 8.

Bacq, S., Ofstein, L. F., Kickul, J. R., & Gundry, L. K. (2017). Perceived entrepreneurial munificence and entrepreneurial intentions: A social cognitive perspective. *International Small Business Journal, 35*(5), 639-659.

Bae, T. J., Qian, S., Miao, C., & Fiet, J. O. (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. *Entrepreneurship theory and practice, 38*(2), 217-254.

Bahadur, A., & Shah, N. (2015). Developing Attitudes and Intentions Among Potential Entrepreneurs. *Journal of Enterprise Information Management, 2*(8), 2.

Ballout, H. I. (2009). Career commitment and career success: the moderating role of self-efficacy. *Career Development International, 14*(7), 655-670.

Baluku, M. M., Bantu, E., & Otto, K. (2018). Effect of locus of control on entrepreneurial attitudes and self-employment intentions: the moderating role of individualism. *Journal of enterprising culture, 26*(03), 251-283.

Baluku, M. M., Leonsio, M., Bantu, E., & Otto, K. (2018). The impact of autonomy on the relationship between mentoring and entrepreneurial intentions among youth in Germany, Kenya, and Uganda. *International Journal of Entrepreneurial Behavior & Research*.

Bambale, A. (2014). Research methodological techniques as a model for quantitative studies in Social Sciences. *British Journal of Economics, Management & Trade, 4*(6), 862-879.

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational behavior and human decision processes, 50*(2), 248-287.

Bandura, A. (1997a). Self-efficacy: The exercise of control: New York: Freeman.

Bandura, A. (1997b). Self-efficacy. The Exercise of Control, New York: W H. *Freeman & Co. Student Success, 333*, 48461.

Bandura, A. (1998). Health promotion from the perspective of social cognitive theory. *Psychology and health, 13*(4), 623-649.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual review of psychology, 52*(1), 1-26.

Bandura, A. (2002). Social cognitive theory in cultural context. *Applied psychology, 51*(2), 269-290.

Bandura, A. (2005). The evolution of social cognitive theory. *Great minds in management*, 9-35.

Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2012). Entrepreneurial behavior: Impact of motivation factors on the decision to create a new venture. *Investigaciones Europeas de Dirección y Economía de la Empresa, 18*(2), 132-138.

Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2017). Entrepreneurial motivation and self-employment: evidence from expectancy theory. *International Entrepreneurship and Management Journal, 13*(4), 1097-1115.

Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2018). Entrepreneurial intention among engineering students: The role of entrepreneurship education. *European Research on Management and Business Economics, 24*(1), 53-61.

Barbosa, S. D., Gerhardt, M. W., & Kickul, J. R. (2007). The role of cognitive style and risk preference on entrepreneurial self-efficacy and entrepreneurial intentions. *Journal of Leadership & Organizational Studies, 13*(4), 86-104.

BarNir, A., Watson, W. E., & Hutchins, H. M. (2011). Mediation and moderated mediation in the relationship among role models, self-efficacy, entrepreneurial career intention, and gender. *Journal of Applied Social Psychology, 41*(2), 270-297.

Baron, R. A. (2006). Opportunity recognition as pattern recognition: How entrepreneurs "connect the dots" to identify new business opportunities. *Academy of management perspectives, 20*(1), 104-119.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology, 51*(6), 1173.

Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human relations, 61*(8), 1139-1160.

Basu, A., & Virick, M. (2008). *Assessing entrepreneurial intentions amongst students: A comparative study*. Paper presented at the VentureWell. Proceedings of Open, the Annual Conference.

Bosma, N., & Kelley, D. (2019). Global Entrepreneurship Monitor 2018/2019 Global Report. *Babson Park: Global Entrepreneurship Research Association*.

Bosompem, M., Dadzie, S. K., & Tandoh, E. (2017). Undergraduate Students' Willingness to Start Own Agribusiness Venture after Graduation: A Ghanaian Case *Entrepreneurship Education: New Perspectives on Entrepreneurship Education* (pp. 75-105): Emerald Publishing Limited.

Boukamcha, F. (2015). Impact of training on entrepreneurial intention: an interactive cognitive perspective. *European Business Review, 27*(6), 593-616.

Boyd, N. G., & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship theory and practice, 18*(4), 63-77.

Bradley, D. E., & Roberts, J. A. (2004). Self-employment and job satisfaction: investigating the role of self-efficacy, depression, and seniority. *Journal of small business management, 42*(1), 37-58.

Bucy, E. P., & Tao, C.-C. (2007). The mediated moderation model of interactivity. *Media Psychology, 9*(3), 647-672.

Bullough, A., & Renko, M. (2013). Entrepreneurial resilience during challenging times. *Business Horizons, 56*(3), 343-350.

Burchell, B., Coutts, A., Hall, E., & Pye, N. (2015). Self-employment programs for young people: A review of the context, policies, and evidence: International Labour Organization.

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

Cano, J. A., & Tabares, A. (2017). Determinants of university students' entrepreneurial intention: GUESS Colombia study. *Espacios, 38*(45), 22.

Casson, R. J., & Farmer, L. D. (2014). Understanding and checking the assumptions of linear regression: a primer for medical researchers. *Clinical & experimental ophthalmology, 42*(6), 590-596.

Chabrol, H., Rousseau, A., Rodgers, R., Callahan, S., Pirlot, G., & Sztulman, H. (2005). A study of the face validity of the 40-item version of the Defense Style Questionnaire (DSQ-40). *The Journal of nervous and mental disease, 193*(11), 756-758.

Chang, S.-J., Van Witteloostuijn, A., & Eden, L. (2010). From the editors: Common method variance in international business research: Springer.

Chen, M.-F. (2015). Self-efficacy or collective efficacy within the cognitive theory of stress model: Which more effectively explains people's self-reported pro-environmental behavior? *Journal of Environmental Psychology, 42*, 66-75.

Chirkov, V., & Anderson, J. (2018). Statistical positivism versus critical scientific realism. A comparison of two paradigms for motivation research: Part 2. A philosophical and empirical analysis of critical scientific realism. *Theory & Psychology, 28*(6), 737-756.

Conway, J. M., & Lance, C. E. (2010). What reviewers should expect from authors regarding common method bias in organizational research. *Journal of Business and Psychology, 25*(3), 325-334.

Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. *Sage publications.*

Crothers, L. M., Schreiber, J. B., Field, J. E., & Kolbert, J. B. (2009). Development and Measurement Through Confirmatory Factor Analysis of the Young Adult Social Behavior Scale (YASB) An Assessment of Relational Aggression in Adolescence and Young Adulthood. *Journal of Psychoeducational Assessment, 27*(1), 17-28.

De Noble, A., Jung, D., & Ehrlich, S. (1999). Entrepreneurial self-efficacy: the development of a measure and its relationship to entrepreneurial action (Paper). *Babson Park, MA: Babson College. Document Number*.

Dempsey, D., & Jennings, J. (2014). Gender and entrepreneurial self-efficacy: a learning perspective. *International Journal of Gender and Entrepreneurship*.

Dheer, R. J., & Lenartowicz, T. (2016). Multiculturalism and entrepreneurial intentions: Understanding the mediating role of cognitions. *Entrepreneurship theory and practice*.

Dikaiakos, M., Eteokleous, P., Polyviou, A., Kassinis, G., Menelaou, M., Nicolaou, N., . . . Rossidou, I. (2017). Global Entrepreneurship Monitor.

Dimova, R., Elder, S., & Stephan, K. (2016). Labour market transitions of young women and men in the Middle East and North Africa. *International Labour Organization, November, 39*.

DOĞAN, E. (2015). The effect of entrepreneurship education on entrepreneurial intentions of university students in Turkey. *Ekonometri ve İstatistik e-Dergisi*(23), 79-93.

Douglas, E. J., & Shepherd, D. A. (2002). Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurship theory and practice, 26*(3), 81-90.

Ebewo, P. E., Rugimbana, R., & Shambare, R. (2017). Effects of Entrepreneurship Education on Students' Entrepreneurial Intentions: A Case of Botswana. *Management, 5*(4), 278-289.

Ebewo, P. E., Shambare, R., & Rugimbana, R. (2017). Entrepreneurial intentions of the Tshwane University of Technology, Arts and Design students. *African Journal of Business Management, 11*(9), 175-182.

Enders, C. K. (2010). *Applied missing data analysis*: Guilford press.

Ernst, A. F., & Albers, C. J. (2017). Regression assumptions in clinical psychology research practice—a systematic review of common misconceptions. *PeerJ, 5*, e3323.

Esfandiar, K., Sharifi-Tehrani, M., Pratt, S., & Altinay, L. (2019). Understanding entrepreneurial intentions: A developed integrated structural model approach. *Journal of Business Research, 94*, 172-182.

Farashah, D. A. (2013). The process of impact of entrepreneurship education and training on entrepreneurship perception and intention: Study of the educational system of Iran. *Education+ Training, 55*(8/9), 868-885.

Farrukh, M., Alzubi, Y., Shahzad, I. A., Waheed, A., & Kanwal, N. (2018). Entrepreneurial intentions: The role of personality traits in perspective of the theory of planned behavior. *Asia Pacific Journal of Innovation and Entrepreneurship, 12*(3), 399-414.

Fayolle, A., & Gailly, B. (2015). The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. *Journal of small business management, 53*(1), 75-93.

Fernández, P. E. A. G.-V., & Rehak, P.-J. Entrepreneurial Intention Among Mexican University Students: The Effect Of Entrepreneurship Educacion And Professional Networks.

Ferreira, J. J., Fernandes, C. I., & Ratten, V. (2017). The influence of entrepreneurship education on entrepreneurial intentions. In *Entrepreneurial universities* (pp. 19-34). Springer, Cham.

Fitzsimmons, J. R., & Douglas, E. J. (2005). Entrepreneurial Attitudes and Entrepreneurial Intentions: A Cross-Cultural Study of Potential Entrepreneurs in India, China, Thailand and Australia.

Fuller, B., Liu, Y., Bajaba, S., Marler, L. E., & Pratt, J. (2018). Examining how the personality, self-efficacy, and anticipatory cognitions of potential entrepreneurs shape their entrepreneurial intentions. *Personality and Individual Differences, 125*, 120-125.

Gelaidan, H. M., & Abdullateef, A. O. (2017a). Entrepreneurial intentions of business students in Malaysia: The role of self-confidence, educational and relation support. *Journal of Small Business and Enterprise Development*.

Gelaidan, H. M., & Abdullateef, A. O. (2017b). Entrepreneurial intentions of business students in Malaysia: the role of self-confidence, educational and relation support. *Journal of small business and Enterprise Development, 24*(1), 54-67.

Gerba, T. D. (2012). Impact of entrepreneurship education on entrepreneurial intentions of business and engineering students in Ethiopia. *African Journal of Economic and Management Studies, 3*(2), 258-277.

Giacobbi Jr, P. R., Poczwardowski, A., & Hager, P. (2005). A pragmatic research philosophy for sport and exercise psychology. *The sport psychologist, 19*(1), 18-31.

Gibson, D., Harris, M. L., Mick, T. D., & Burkhalter, T. M. (2011). Comparing the entrepreneurial attitudes of university and community college students. *Journal of Higher Education Theory and Practice, 11*(2), 11-19.

Gindling, T. H., & Newhouse, D. (2012). *Self-employment in the developing world*: The World Bank.

Gliem, J. A., & Gliem, R. R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*.

Gonzalez, R. (2003). Applied Multivariate Statistics for the Social Sciences: Taylor & Francis.

Gorgievski, M. J., Stephan, U., Laguna, M., & Moriano, J. A. (2018). Predicting entrepreneurial career intentions: Values and the theory of planned behavior. *Journal of career assessment, 26*(3), 457-475.

Gravetter, F. J., & Wallnau, L. B. (2000). Statistics for the behavioral sciences.

Guerrero, M., Rialp, J., & Urbano, D. (2008). The impact of desirability and feasibility on entrepreneurial intentions: A structural equation model. *International Entrepreneurship and Management Journal, 4*(1), 35-50.

Hair, J., Anderson, R., Tatham, R., & Black, W. (2006). Multivariate data analysis 6th edition prentice hall. *New Jersey*.

Harinie, L. T., Sudiro, A., Rahayu, M., & Fatchan, A. (2017). Study of Bandura's social cognitive learning theory for the entrepreneurship learning process. *Social Sciences, 6*(1), 1-6.

Hassan, A., Saleem, I., Anwar, I., & Hussain, S. A. (2020). Entrepreneurial intention of Indian university students: the role of opportunity recognition and entrepreneurship education. *Education+ Training*.

Hattab, H. W. (2014). Impact of entrepreneurship education on entrepreneurial intentions of university students in Egypt. *The Journal of Entrepreneurship, 23*(1), 1-18.

Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs, 76*(4), 408-420.

Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling: University of Kansas, KS.

Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate behavioral research, 50*(1), 1-22.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*: Guilford Publications.

Hayes, A. F. (2018). Partial, conditional, and moderated moderated mediation: Quantification, inference, and interpretation. *Communication monographs, 85*(1), 4-40.

Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-based nursing*, ebnurs-2015-102129.

Henley, A. (2005). *From entrepreneurial aspiration to business start-up: Evidence from British longitudinal data*: European Business Management School, University of Wales, Swansea.

Henley, A. (2007). Entrepreneurial aspiration and transition into self-employment: evidence from British longitudinal data. *Entrepreneurship & Regional Development, 19*(3), 253-280.

Hennessy, M., Bleakley, A., & Fishbein, M. (2012). Measurement models for reasoned action theory. *The annals of the American academy of political and social Science, 640*(1), 42-57.

Herman, E., & Stefanescu, D. (2017). Can higher education stimulate entrepreneurial intentions among engineering and business students? *Educational Studies*, *43*(3), 312-327.

Hmieleski, K. M., & Baron, R. A. (2008). When does entrepreneurial self-efficacy enhance versus reduce firm performance? *Strategic Entrepreneurship Journal, 2*(1), 57-72.

Holden, M. T., & Lynch, P. (2004). Choosing the appropriate methodology: Understanding research philosophy. *The marketing review, 4*(4), 397-409.

Hussain, T., Hashmi, A., & Gilani, M. (2018). Attitude towards entrepreneurship: An exploration of technology education students. *Bulletin of Education and Research, 40*(1).

Iakovleva, T., & Kolvereid, L. (2009). An integrated model of entrepreneurial intentions. *International Journal of Business and Globalisation, 3*(1), 66.

Iglesias-Sánchez, P. P., Jambrino-Maldonado, C., Velasco, A. P., & Kokash, H. (2016). Impact of entrepreneurship programs on university students. *Education+ Training, 58*(2), 209-228.

Ilyas, M., Zahid, A., & Rafiq, M. (2015). Impact of entrepreneurship education on intention and desire for venture creation: An empirical study of entrepreneurs and nonentrepreneur graduates. *Journal of Marketing and Consumer Research, 6*, 57-65.

International labor organization (2018). World employment social outlook: international labor office Geneva

International labour organization (2015). Self-employment programs for young people: A review of the context, policies, and evidence: international labour office Geneva

Ismail, A. (2015). The entrepreneurial attitude and intentions of newly enrolled university students–Issues and policy implications.

Ismail, N., Jaffar, N., & Hooi, T. S. (2013). Using EAO model to predict the self-employment intentions among the Universities' Undergraduates in Malaysia. *International Journal of Trade, Economics, and Finance, 4*(5), 282.

Jena, R. (2020). Measuring the impact of business management Student's attitude towards entrepreneurship education on entrepreneurial intention: A case study. *Computers in Human Behavior, 107*, 106275.

Jimmieson, N. L. (2000). Employee reactions to behavioral control under conditions of stress: The moderating role of self-efficacy. *Work & Stress, 14*(3), 262-280.

Joensuu, S., Viljamaa, A., Varamäki, E., & Tornikoski, E. (2013). Development of entrepreneurial intention in higher education and the effect of gender–a latent growth curve analysis. *Education+ Training, 55*(8/9), 781-803.

Juračak, J., & Tica, M. (2016). Graduate Students' Opinions about Entrepreneurship as an Employment Opportunity. *ABSTRACT: Applied Studies in Agribusiness and Commerce, 10*(1033-2016-84298), 23.

Kadir, M. B. A., Salim, M., & Kamarudin, H. (2012). The relationship between educational support and entrepreneurial intentions in Malaysian higher learning institutions. *Procedia-Social and Behavioral Sciences, 69*, 2164-2173.

Karlsson, T., & Moberg, K. (2013). Improving perceived entrepreneurial abilities through education: Exploratory testing of an entrepreneurial self-efficacy scale in a pre-post setting. *The International Journal of Management Education, 11*(1), 1-11.

Kim-Soon, N., Ahmad, A. R., & Ibrahim, N. N. (2014). Entrepreneurial motivation and entrepreneurship career intention: Case at a Malaysian Public University. *Crafting Global Competitive Economies, 2020*, 1001-1011.

Kim-Soon, N., Ahmad, A. R., & Ibrahim, N. N. (2018). Understanding the Motivation that Shapes Entrepreneurship Career Intention *Entrepreneurship-Development Tendencies and Empirical Approach*: IntechOpen.

Kimberlin, C. L., & Winterstein, A. G. (2008). Validity and reliability of measurement instruments used in research. *American journal of health-system pharmacy, 65*(23), 2276-2284.

Kolvereid, L. (1996). Organizational employment versus self-employment: Reasons for career choice intentions. *Entrepreneurship theory and practice, 20*(3), 23-31.

Kolvereid, L. (2016). Preference for self-employment: Prediction of new business start-up intentions and efforts. *The International Journal of Entrepreneurship and Innovation, 17*(2), 100-109.

Kolvereid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into self-employment. *Journal of Business Venturing, 21*(6), 866-885.

Kotrlik, J., & Higgins, C. (2001). Organizational research: Determining the appropriate sample size in survey research. *Information technology, learning, and performance journal, 19*(1), 43.

Krasniqi, B. A. (2009). Personal, household, and business environmental determinants of entrepreneurship. *Journal of small business and Enterprise Development, 16*(1), 146-166.

Kritskaya, L. (2015). *Effect of Entrepreneurship Education on Students' Entrepreneurial Intentions Educators' Perspectives at Universities in Norway and Russia.* Universitetet i Agder; University of Agder.

Krueger Jr, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship theory and practice, 18*(3), 91-104.

Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of business venturing, 15*(5-6), 411-432.

Krueger, N. F. (2008). Entrepreneurial Resilience: real & perceived barriers to implementing entrepreneurial intentions. *Available at SSRN 1155269.*

Kusmintarti, A., Thoyib, A., Ashar, K., & Maskie, G. (2014). The relationships among entrepreneurial characteristics, entrepreneurial attitude and entrepreneurial intention. *IOSR Journal of Business and Management, 16*(6), 25-32.

Lai, M.-C., & Chen, Y.-C. (2012). Self-Efficacy, Effort, Job Performance, Job Satisfaction, and Turnover Intention: The Effect of PersonalCharacteristics on Organization Performance. *International Journal of Innovation, Management, and Technology, 3*(4), 387.

Lam, K. W., Hassan, A., Sulaiman, T., & Kamarudin, N. (2018). Evaluating the Face and Content Validity of an Instructional Technology Competency Instrument for University Lecturers in Malaysia. *International Journal of Academic Research in Business and Social Sciences, 8*(5), 367-385.

Law, K. M., & Breznik, K. (2017). Impacts of innovativeness and attitude on entrepreneurial intention: among engineering and non-engineering students. *International Journal of Technology and Design Education, 27*(4), 683-700.

Lee, L., Wong, P. K., Der Foo, M., & Leung, A. (2011). Entrepreneurial intentions: The influence of organizational and individual factors. *Journal of Business Venturing, 26*(1), 124-136.

Liguori, E. W., Bendickson, J. S., & McDowell, W. C. (2018). Revisiting entrepreneurial intentions: a social cognitive career theory approach. *International Entrepreneurship and Management Journal, 14*(1), 67-78.

Liñán, F., & Chen, Y. W. (2009). Development and Cross-Cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice, 33*(3), 593-617.

Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice, 33*(3), 593-617.

Liñán, F., & Rodríguez-Cohard, J. C. (2015a). Assessing the stability of graduates' entrepreneurial intention and exploring its predictive capacity. *Academia Revista Latinoamericana de Administración.*

Liñán, F., & Rodríguez-Cohard, J. C. (2015b). Assessing the stability of graduates' entrepreneurial intention and exploring its predictive capacity. *Academia Revista Latinoamericana de Administración, 28*(1), 77-98.

Lüthje, C., & Franke, N. (2003). The making of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&d Management, 33*(2), 135-147.

MacKinnon, D. (2012). *Introduction to statistical mediation analysis*: Routledge.

Mahendra, A. M., Djatmika, E. T., & Hermawan, A. (2017). The Effect of Entrepreneurship Education on Entrepreneurial Intention Mediated by Motivation and Attitude among Management Students, State University of Malang, Indonesia. *International Education Studies, 10*(9), 61-69.

Maheshwari, G., Kha, K. L., & Arokiasamy, A. R. A. (2022). Factors affecting students' entrepreneurial intentions: a systematic review (2005–2022) for future directions in theory and practice. *Management Review Quarterly*, 1-68.

Majogoro, K., & Mgabo, M. R. (2012). Self-employment intention among university students: testing Ajzen's theory of planned behavior (TPB). *International Journal of Physical and Social Sciences, 2*(8), 67-84.

Margahana, H., & Negara, S. T. (2019). Self Efficacy, Self Personality And Self Confidence On Entrepreneurial Intention: Study On Young Enterprises. *Journal of Entrepreneurship Education, 22*(1).

Mat, S. C., Maat, S. M., & Mohd, N. (2015). Identifying factors that affecting the entrepreneurial intention among engineering technology students. *Procedia-Social and Behavioral Sciences, 211*, 1016-1022.

Mertler, C. A., & Reinhart, R. V. (2016). *Advanced and multivariate statistical methods: Practical application and interpretation*: Taylor & Francis.

Michelle, K., & Tendai, C. (2016). The association of entrepreneurship education and entrepreneurial intention among university students in the Eastern Cape Province of South Africa. *International Journal of Educational Sciences, 12*(3), 200-211.

Ministry of Finance Planning and Economic Development (2013). Uganda Poverty Status Report, 2013: Achievements and Pointers for the PEAP Revision, Kampala.

Mijoč, J., Stanić, M., & Horvat, J. (2016). Measuring attitudes in the self-employment intention model: methodological considerations. *Croatian Operational Research Review, 7*(2), 333-348.

Miralles, F., & Riverola, C. (2012). *Entrepreneurial intention: An empirical insight to nascent entrepreneurs.* Paper presented at the ISPIM Conference Proceedings.

Mkansi, M., & Acheampong, E. A. (2012). Research philosophy debates and classifications: students' dilemma. *Electronic Journal of Business Research Methods, 10*(2), 132-140.

Mohajan, H. K. (2017). Two criteria for good measurements in research: Validity and reliability. *Annals of Spiru Haret University. Economic Series, 17*(4), 59-82.

Moralista, R. B., & Delariarte, G. (2014). Entrepreneurship as a career choice: an analysis of entrepreneurial self-efficacy and intention of National High School senior students at the municipality of Calinog, Iloilo. *Asia Pacific Journal of Education, Arts, and Sciences, 1*(2), 12-15.

Morgan-Lopez, A. A., & MacKinnon, D. P. (2006). Demonstration and evaluation of a method for assessing mediated moderation. *Behavior research methods, 38*(1), 77-87.

Moses, C., Olokundun, A. M., Akinbode, M., Agboola, M. G., & Inelo, F. (2016). Entrepreneurship education and entrepreneurial intentions: The moderating role of passion. *The Social Sciences, 11*(5), 645-653.

Muharam, F. M., & Serah, A. T. (2014). The Impact of Entrepreneurship Education: An Investigation of Undergraduate Student Self-Employment Intention.

Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of personality and social psychology, 89*(6), 852.

Mulugeta, A. (2016). Analysis of determinants of students' self-employment intention in newly established Universities of Ethiopia.

Nabayego, C. (2014). How University Education in Uganda Can Be Improved To Prepare Economically Productive Graduates. *Asian Journal of Social Sciences and Management Studies, 1*(2), 62-70.

Nabi, G., & Holden, R. (2008). Graduate entrepreneurship: intentions, education, and training. *Education+ Training, 50*(7), 545-551.

Nabi, G., Holden, R., Harris, M. L., & Gibson, S. G. (2008). Examining the entrepreneurial attitudes of US business students. *Education+ Training*.

Nabi, G., Holden, R., & Walmsley, A. (2010). From student to entrepreneur: towards a model of graduate entrepreneurial career-making. *Journal of Education and Work, 23*(5), 389-415.

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

Nabi, R. L., & Prestin, A. (2017). Social learning theory and social cognitive theory. *The International Encyclopedia of Media Effects*, 1-13.

Nagarathanam, R., & Buang, N. A. (2016). The Relationship between Attitude, Intention, and Entrepreneurship Career Choice among Malaysian Indian Undergraduates (Hubungan Sikap, Keinginan, dan Pemilihan Kerjaya Keusahawanan dalam Kalangan Prasiswazah India Malaysia). *Akademika, 86*(2).

Naktiyok, A., Karabey, C. N., & Gulluce, A. C. (2010). Entrepreneurial self-efficacy and entrepreneurial intention: the Turkish case. *International Entrepreneurship and Management Journal, 6*(4), 419-435.

National Council for Higher Education (2018). The State of Higher Education and Training in Uganda 2015/16: A Report on Higher Education Delivery and Institutions.

National Council for Higher Education (2016). The State of Higher Education and Training in Uganda 2014: A Report on Higher Education Delivery and Institutions.

Ndofirepi, T. M. (2020). Relationship between entrepreneurship education and entrepreneurial goal intentions: psychological traits as mediators. *Journal of Innovation and Entrepreneurship, 9*(1), 2.

Neto, R. d. C. A., Rodrigues, V. P., Stewart, D., Xiao, A., & Snyder, J. (2018). The influence of self-efficacy on entrepreneurial behavior among K-12 teachers. *Teaching and Teacher Education, 72*, 44-53.

Newman, A., Obschonka, M., Schwarz, S., Cohen, M., & Nielsen, I. (2019). Entrepreneurial self-efficacy: A systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research. *Journal of Vocational Behavior, 110*(Part B), 403-419.

Ngugi, J. K., Gakure, R., Waithaka, S. M., & Kiwara, A. N. (2012). Application of Shapero's model in explaining entrepreneurial intentions among university students in Kenya. *International journal of business and social research, 2*(4), 125-148.

Nowiński, W., & Haddoud, M. Y. (2019). The role of inspiring role models in enhancing entrepreneurial intention. *Journal of Business Research, 96*, 183-193.

Nowiński, W., Haddoud, M. Y., Lančarič, D., Egerová, D., & Czeglédi, C. (2019). The impact of entrepreneurship education, entrepreneurial self-efficacy, and gender on entrepreneurial intentions of university students in the Visegrad countries. *Studies in Higher Education, 44*(2), 361-379.

Nunnally, J. (1978). Psychometric theory (2nd edit.) McGraw-hill. *Hillsdale, NJ, 416*.

Odewale, G. T., Hani, S. H. A., Migiro, S. O., & Adeyeye, P. O. (2019). Entrepreneurship Education And Students'views On Self-Employment Among International Postgraduate Students In Universiti Utara Malaysia. *Journal of Entrepreneurship Education, 22*(1).

Oghazi, P., Jung, M., Kaveh, P., & Phillip, T. (2009). What makes people want to become self-employed? Applying the Theory of Planned Behavior. *Journal of Advances in Management, 2*(11), 9-18.

Ojewumi, A. K., Oyeleke, J. T., Agberotimi, F., & Adedayo, O. (2018). Obafemi Awolowo university undergraduate students: The influence of gender and self-efficacy on entrepreneurial intentions. *Africology: The Journal of Pan African Studies, 11*(2), 168-185.

Oo, P. P., Sahaym, A., Juasrikul, S., & Lee, S.-Y. (2018). The interplay of entrepreneurship education and national cultures in entrepreneurial activity: a social cognitive perspective. *Journal of International Entrepreneurship, 16*(3), 398-420.

Osborne, J., & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical assessment, research & evaluation, 8*(2), 1-9.

Osborne, J. W., & Waters, E. (2002). Multiple Regression Assumptions. ERIC Digest.

Packham, G., Jones, P., Miller, C., Pickernell, D., & Thomas, B. (2010). Attitudes towards entrepreneurship education: a comparative analysis. *Education+ Training, 52*(8/9), 568-586.

Pallant, J. (2011). Survival manual. *A step-by-step guide to data analysis using SPSS, 4*.

Paray, Z. A., & Kumar, S. (2020). Does entrepreneurship education influence entrepreneurial intention among students in HEIs? The role of age, gender, and degree background. *Journal of International Education in Business*.

Patricia, P., & Silangen, C. (2016). The Effect of Entrepreneurship Education on Entrepreneurial Intention in Indonesia. *DeReMa (Development Research of Management): Jurnal Manajemen, 11*(1), 67-86.

Păunescu, C., Popescu, M., & Duennweber, M. (2018). Factors Determining Desirability of Entrepreneurship in Romania. *Sustainability, 10*(11), 3893.

Peng, X., Liu, Y., & Lin, Y. (2015). The impact of environmental uncertainty and effectual flexibility on entrepreneurial resource combination: The moderating effect of entrepreneurial self-efficacy. *Frontiers of Business Research in China, 9*(4), 559.

Piperopoulos, P., & Dimov, D. (2015). Burst bubbles or builds steam? Entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial intentions. *Journal of Small Business Management, 53*(4), 970-985.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879.

Politis, D., & Gabrielsson, J. (2009). Entrepreneurs' attitudes towards failure: An experiential learning approach. *International Journal of Entrepreneurial Behavior & Research, 15*(4), 364-383.

Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of educational and behavioral statistics, 31*(4), 437-448.

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers, 36*(4), 717-731.

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate behavioral research, 42*(1), 185-227.

Prodan, I., & Drnovsek, M. (2010). Conceptualizing academic-entrepreneurial intentions: An empirical test. *Technovation, 30*(5-6), 332-347.

Pruett, M. (2012). Entrepreneurship education: Workshops and entrepreneurial intentions. *Journal of Education for Business, 87*(2), 94-101.

Pruett, M., Shinnar, R., Toney, B., Llopis, F., & Fox, J. (2009). Explaining entrepreneurial intentions of university students: a cross-cultural study. *International Journal of Entrepreneurial Behavior & Research, 15*(6), 571-594.

Puni, A., Anlesinya, A., & Korsorku, P. D. A. (2018a). Entrepreneurial education, self-efficacy, and intentions in Sub-Saharan Africa. *African Journal of Economic and Management Studies, 9*(4), 492-511.

Puni, A., Anlesinya, A., & Korsorku, P. D. A. (2018b). Entrepreneurial education, self-efficacy, and intentions in Sub-Saharan Africa. *African Journal of Economic and Management Studies*.

Purwana, D., & Suhud, U. (2018). Investigating the effect of motivation on entrepreneurial intention: three different approaches.

Rasmussen, E. A., & Sørheim, R. (2006). Action-based entrepreneurship education. *Technovation, 26*(2), 185-194.

Riazi, A. M. (2016). Innovative mixed-methods research: Moving beyond design technicalities to epistemological and methodological realizations. *Applied Linguistics, 37*(1), 33-49.

Robinson, P. B., Stimpson, D. V., Huefner, J. C., & Hunt, H. K. (1991). An attitude approach to the prediction of entrepreneurship. *Entrepreneurship theory and practice, 15*(4), 13-32.

Robledo, J. L. R., Arán, M. V., Sanchez, V. M., & Molina, M. Á. R. (2015). The moderating role of gender on entrepreneurial intentions: A TPB perspective. *Intangible Capital, 11*(1), 92-117.

Rosique-Blasco, M., Madrid-Guijarro, A., & García-Pérez-de-Lema, D. (2018). The effects of personal abilities and self-efficacy on entrepreneurial intentions. *International Entrepreneurship and Management Journal, 14*(4), 1025-1052.

Sahut, J. M., Gharbi, S., & Mili, M. (2015). Identifying factors key to encouraging entrepreneurial intentions among seniors. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, *32*(4), 252-264.

Saraih, U. N., Aris, A. Z. Z., Mutalib, S. A., Ahmad, T. S. T., & Amlus, M. H. (2018). *Examining The Relationships between Attitude Towards Behavior, Subjective Norms, and Entrepreneurial Intention among Engineering Students.* Paper presented at the MATEC Web of Conferences.

Schmutzler, J., Andonova, V., & Diaz-Serrano, L. (2018). How context shapes entrepreneurial self-efficacy as a driver of entrepreneurial intentions: A multilevel approach. *Entrepreneurship theory and practice*, 1042258717753142.

Scott, S. G., & Bruce, R. A. (1995). Decision-making style: The development and assessment of a new measure. *Educational and psychological measurement, 55*(5), 818-831.

Shahab, Y., Chengang, Y., Arbizu, A. D., & Haider, M. J. (2019). Entrepreneurial self-efficacy and intention: do entrepreneurial creativity and education matter? *International Journal of Entrepreneurial Behavior & Research, 25*(2), 259-280.

Shamsudin, S. F. F. B., Al Mamun, A., Nawi, N. B. C., Nasir, N. A. B. M., & Zakaria, M. N. B. (2017). Factors affecting entrepreneurial intention among Malaysian university students. *The Journal of Developing Areas, 51*(4), 423-431.

Shapero, A., & Sokol, L. (1982a). The social dimensions of entrepreneurship.

Shapero, A., & Sokol, L. (1982b). The social dimensions of entrepreneurship. The *University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship*.

Shariff, M. N. M., & Saud, M. B. (2009). An attitude approach to the prediction of entrepreneurship on students at institutions of higher learning in Malaysia. *International Journal of Business and Management, 4*(4), 129-135.

Shinnar, R. S., Hsu, D. K., & Powell, B. C. (2014). Self-efficacy, entrepreneurial intentions, and gender: Assessing the impact of entrepreneurship education longitudinally. *The International Journal of Management Education, 12*(3), 561-570.

Shook, C. L., & Bratianu, C. (2010). Entrepreneurial intent in a transitional economy: an application of the theory of planned behavior to Romanian students. *International Entrepreneurship and Management Journal, 6*(3), 231-247.

Shook, C. L., Priem, R. L., & McGee, J. E. (2003). Venture creation and the enterprising individual: A review and synthesis. *Journal of Management, 29*(3), 379-399.

Solesvik, M. Z. (2013). Entrepreneurial motivations and intentions: investigating the role of education major. *Education+ Training, 55*(3), 253-271.

Solesvik, M. Z., Westhead, P., Kolvereid, L., & Matlay, H. (2012). Student intentions to become self-employed: the Ukrainian context. *Journal of small business and Enterprise Development, 19*(3), 441-460.

Stevens, J. (1996). Applied multivariate statistics for the social sciences. Third edition: Lawrence Erlbaum Associates, Hillsdale, New Jersey, USA.

Stevens, J. (2002). Applied multivariate statistics for the social sciences. Lawrence Erlbaum Associates. *Inc. New Jersey*.

Sweida, G. L., & Reichard, R. J. (2013). Gender stereotyping effects on entrepreneurial self-efficacy and high-growth entrepreneurial intention. *Journal of small business and Enterprise Development, 20*(2), 296-313.

Szaban, J. (2018). Self-employment and entrepreneurship: A theoretical approach. *Journal of Management and Business Administration. Central Europe, 26*(2), 89-120.

Szaban, J., & Skrzek-Lubasińska, M. (2018). Self-employment and entrepreneurship: A theoretical approach. *Journal of Management and Business Administration. Central Europe, 26*(2), 89-120.

Tabachnick, B. G., & Fidell, L. S. (2001). Using multivariate statistics (Vol. 5). *Nedham Heights, MA: Allyn & Bacon*.

Tabachnick, B. G., & Fidell, L. S. (2007). Experimental designs using ANOVA: Thomson. *Brooks/Cole*.

Tabachnick, B. G., & Fidell, L. S. (2013). Using multivariate statistics: International edition. *Pearson2012*.

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using multivariate statistics* (Vol. 5): Pearson Boston, MA.

Taherdoost, H. (2016a). Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in research. *How to test the validation of a questionnaire/survey in research (August 10, 2016)*.

Taherdoost, H. (2016b). Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research. *International Journal of Academic Research in Management, 5*(3), 28-36.

Tam, Y. L. A., Chiew, T. M., & Chang, M. L. D. (2011). The entrepreneurial intention of undergraduate: The impact of role model and attitudes.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education, 2*, 53.

Templeton, G. F. (2011). A two-step approach for transforming continuous variables to normal: implications and recommendations for IS research. *Communications of the Association for Information Systems, 28*(1), 4.

Tharenou, P., Donohue, R., & Cooper, B. (2007). *Management research methods*: Cambridge University Press.

Thu, T. D. T., & Le Hieu, H. (2017). Building up the Entrepreneurial Intent Construct among Technical Students in Vietnam. *Journal of Small Business and Entrepreneurship, 5*(1), 7-18.

Thurik, R., Verheul, I., & Grilo, I. (2010). Explaining preferences and actual involvement in self-employment: New insights into the role of gender: EIM Business and Policy Research.

Titilayo, O. G. (2015). *The influence of entrepreneurship education and students' views on self-employment among postgraduate students in Universiti Utara Malaysia.* Universiti Utara Malaysia.

Tiwari, P., Bhat, A. K., & Tikoria, J. (2017). The role of emotional intelligence and self-efficacy on social entrepreneurial attitudes and social entrepreneurial intentions. *Journal of Social Entrepreneurship, 8*(2), 165-185.

Tkachev, A., & Kolvereid, L. (1999). Self-employment intentions among Russian students. *Entrepreneurship & Regional Development, 11*(3), 269-280.

Tognazzo, A., Gianecchini, M., & Gubitta, P. (2017). Educational Context and Entrepreneurial Intentions of University Students: An Italian Study *Entrepreneurship Education: New Perspectives on Entrepreneurship Education* (pp. 47-74): Emerald Publishing Limited.

Torres, F. C., Méndez, J. C. E., Barreto, K. S., Chavarría, A. P., Machuca, K. J., & Guerrero, J. A. O. (2017). Exploring entrepreneurial intentions in Latin American university students. *International Journal of Psychological Research, 10*(2), 46-59.

Tran, A. T., & Von Korflesch, H. (2016). A conceptual model of social entrepreneurial intention based on the social cognitive career theory. *Asia Pacific Journal of Innovation and Entrepreneurship, 10*(1), 17-38.

Trochim, W. (2006). Introduction to validity. Philosophy of Research.

Tshikovhi, N., & Shambare, R. (2015). Entrepreneurial knowledge, personal attitudes, and entrepreneurship intentions among South African Enactus students. *Problems and Perspectives in Management, 13*(1), 152-158.

UBOS. (2017). Statistical Abstract 2017. Uganda Bureau of Statistics (UBOS), 353.

Ummah, S. (2009). Entrepreneurial motivation and self-employment intention: An empirical study on management undergraduates in Sri Lanka.

Usman, B. (2019). Understanding the entrepreneurial intention among international students in Turkey. *Journal of Global Entrepreneurship Research, 9*(1), 10.

van der Zwan, P., Zuurhout, P., & Hessels, J. (2013). Entrepreneurship education and self-employment: The role of perceived barriers. *Pantera/EIM bv. Pozyskano z: http://www. onder-nemerschap. nl/pdf-ez H, 201301.*

Vanevenhoven, J., & Liguori, E. (2013). The Impact of Entrepreneurship Education: Introducing the Entrepreneurship Education Project. *Journal of small business management, 51*(3), 315-328.

Varni, J. W., Limbers, C. A., Bryant, W. P., & Wilson, D. P. (2010). The PedsQL™ Multidimensional Fatigue Scale in pediatric obesity: Feasibility, reliability, and validity. *International Journal of Pediatric Obesity, 5*(1), 34-42.

Verheul, I., Block, J., Burmeister-Lamp, K., Thurik, R., Tiemeier, H., & Turturea, R. (2015). ADHD-like behavior and entrepreneurial intentions. *Small Business Economics, 45*(1), 85-101.

Wang, J.-H., Chang, C.-C., Yao, S.-N., & Liang, C. (2016). The contribution of self-efficacy to the relationship between personality traits and entrepreneurial intention. *Higher Education, 72*(2), 209-224.

Welsh, D. H., Tullar, W. L., & Nemati, H. (2016). Entrepreneurship education: Process, method, or both? *Journal of Innovation & Knowledge, 1*(3), 125-132.

Whittall, K. P., & MacKay, A. L. (1989). Quantitative interpretation of NMR relaxation data. *Journal of Magnetic Resonance (1969), 84*(1), 134-152.

Williams, M. N., Grajales, C. A. G., & Kurkiewicz, D. (2013). Assumptions of multiple regression: Correcting two misconceptions.

Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, Entrepreneurial Self–Efficacy, and Entrepreneurial Career Intentions: Implications for Entrepreneurship Education. *Entrepreneurship theory and practice, 31*(3), 387-406.

Wu, S., & Wu, L. (2008). The impact of higher education on entrepreneurial intentions of university students in China. *Journal of small business and Enterprise Development, 15*(4), 752-774.

Yang, S., Wang, B., & Lu, Y. (2016). Exploring the dual outcomes of mobile social networking service enjoyment: The roles of social self-efficacy and habit. *Computers in Human Behavior, 64*, 486-496.

Yıldırım, N., Çakır, Ö., & Aşkun, O. B. (2016). Ready to dare? A case study on the entrepreneurial intentions of business and engineering students in Turkey. *Procedia-Social and Behavioral Sciences, 229*, 277-288.

Zhang, X., Han, X., Dang, Y., Meng, F., Guo, X., & Lin, J. (2017). User acceptance of mobile health services from users' perspectives: The role of self-efficacy and response-efficacy in technology acceptance. *Informatics for Health and Social Care, 42*(2), 194-206.

Zikmund, W. G., Carr, J. C., Babin, B., & Griffin, M. (2013). *Business research methods*: Nelson Education.

APPENDICES

Appendix 1: Data Collection Instrument

MOI UNIVERSITY

SCHOOL OF BUSINESS AND ECONOMICS

QUESTIONNAIRE

Dear Respondent,

I am a Postgraduate student carrying out a study on **"*Entrepreneurship Education,***
Entrepreneurial Attitude and Self-efficacy on Entrepreneurial Intentions" which is
an academic requirement for the award of Degree of Doctor of Philosophy in Business
Management of Moi University- Kenya**.**

You have been selected to participate in this survey because of your knowledge in this
area. While answering there is no right and wrong answer, but your objective opinion
is important in this study. The data being collected is only for academic purposes and
will highly remain confidential. Your participation is highly appreciated.

Instructions

Your responses towards the stated study statements are guided: **Strongly Disagree =1,**
Disagree =2, Slightly Disagree =3, neutral = 4, Slightly Agree = 5, Agree = 6, and
Strongly Agree =7.

Section A

Part I: Please indicate by ticking √ in the appropriate box the extent you disagree or agree to the given statements relating to Entrepreneurial intentions;

NO	Entrepreneurial Intentions	SD						SA
EI1	I am ready to do the needful to start up my own business	1	2	3	4	5	6	7
EI2	I will make every effort to start and run my own business	1	2	3	4	5	6	7
EI3	I am determined to create a firm in the future	1	2	3	4	5	6	7
EI4	I have very seriously thought of starting a firm	1	2	3	4	5	6	7
EI5	I have a strong belief to become an entrepreneur	1	2	3	4	5	6	7
EI6	I intend to start a firm within five years of graduation	1	2	3	4	5	6	7
EI7	I prefer to be an entrepreneur in my expertise.	1	2	3	4	5	6	7
EI8	I have a strong intention to start my own business after completing my study.	1	2	3	4	5	6	7
EI9	I prefer to be an entrepreneur rather than to be an employee in a company.	1	2	3	4	5	6	7
EI10	I am delighted to face the challenges of creating a new business	1	2	3	4	5	6	7

Part II: Tick your level of agreement to the following statements relating to Entrepreneurship Education. Remember; **Strongly Disagree =1, Disagree =2, slightly Disagree =3, neutral = 4, slightly Agree = 5, Agree = 6 and strongly Agree =7**

CODE	Entrepreneurship Education							
OR	**Opportunity recognition**	SD						SA
OR1	I have learned several methods to generate basic business ideas	1	2	3	4	5	6	7
OR2	Education enables me to recognize alternative career options	1	2	3	4	5	6	7
OR3	Education enhances my ability to better perceive business opportunities in my environment	1	2	3	4	5	6	7
OR4	Education empowered me to solve economic and social problems in my environments for a fee	1	2	3	4	5	6	7
EKA	**Entrepreneurship knowledge acquisition**	SD						SA
EKA1	Education enables me to identify the characteristics of successful business owners (e.g., risk-taking, pro-activity, innovativeness, etc.	1	2	3	4	5	6	7
EKA2	Education gives me a feeling of independence	1	2	3	4	5	6	7

EKA3	Education increases my awareness of the different forms of businesses that I can set up i.e., Sole proprietorship, partnership	1	2	3	4	5	6	7
EKA4	I have acquired the skills, knowledge, and competencies needed to establish, develop and manage a new business	1	2	3	4	5	6	7
EKA5	Training increases my awareness of the duties and rights of entrepreneurs and their commitment to their stakeholders	1	2	3	4	5	6	7
EKA6	Education has enhanced my understanding of the different sources I can obtain funding to start a new business	1	2	3	4	5	6	7

Part III: Your responses to Entrepreneurial Attitude are guided by **Extremely (E) =7, quite (Q) = 6, slightly (S) =5, neither (N) = 4, slightly (E) =3, quite (Q) =2 and extremely (S) =1**

NO	Entrepreneurial attitude	E	Q	S	N	S	Q	E	
EA1	To me being an entrepreneur is …...………...... bad	1	2	3	4	5	6	7	Good
EA2	To me being an entrepreneur is …………unpleasant	1	2	3	4	5	6	7	Pleasant
EA3	To me being an entrepreneur is ……...………foolish	1	2	3	4	5	6	7	Wise
EA4	To me being an entrepreneur is …………not enjoyable	1	2	3	4	5	6	7	Enjoyable
EA5	To me being an entrepreneur is …………..... harmful	1	2	3	4	5	6	7	Beneficial
EA6	To me being an entrepreneur is a………...… failure	1	2	3	4	5	6	7	Success
EA7	To me being an entrepreneur is ………. dissatisfying	1	2	3	4	5	6	7	Satisfying
EA8	To me being an entrepreneur is…..... disadvantageous	1	2	3	4	5	6	7	Advantage ous
EA9	To me being an entrepreneur is………. Unnecessary	1	2	3	4	5	6	7	Necessary
EA10	To me being an entrepreneur is ………not Important	1	2	3	4	5	6	7	Important
EA11	To me being an entrepreneur is…………..... unlikely	1	2	3	4	5	6	7	likely
EA12	To me being an entrepreneur is …….Not rewarding	1	2	3	4	5	6	7	Rewarding

Part IV: Please tick√ the extent you agree or disagree with the following statements relating to Entrepreneurial Self-efficacy. Remember; **Strongly Disagree =1, Disagree =2, slightly Disagree =3, neutral = 4, slightly Agree = 5, Agree = 6 and strongly Agree =7**

CODE	Entrepreneurial self-efficacy	SD						SA
ESE1	I can originate new ideas	1	2	3	4	5	6	7
ESE2	I can take the responsibility for new ideas and decisions	1	2	3	4	5	6	7
ESE3	I can obtain business outcomes that are important to me	1	2	3	4	5	6	7
ESE4	When facing difficult tasks, I am certain that I will accomplish them	1	2	3	4	5	6	7
ESE5	I can make the right decisions under uncertainty and risk	1	2	3	4	5	6	7
ESE6	I can develop a well-conceived business plan and present it to potential investors.	1	2	3	4	5	6	7
ESE7	I can start my business venture	1	2	3	4	5	6	7
ESE8	I can identify a business opportunity from a broader environment.	1	2	3	4	5	6	7
ESE9	I have the required skills to engage in start-up activities	1	2	3	4	5	6	7
ESE10	I understand what it takes to start my own business	1	2	3	4	5	6	7
ESE11	I can understand the language of business and start-ups	1	2	3	4	5	6	7
ESE12	I am able to conduct a market analysis for a business idea	1	2	3	4	5	6	7
ESE13	I can recognize customer's unmet needs	1	2	3	4	5	6	7
ESE14	Compared to other students, I can do entrepreneurial tasks very well	1	2	3	4	5	6	7
ESE15	I am confident that I can perform effectively on many different entrepreneurial tasks	1	2	3	4	5	6	7
ESE16	I can successfully overcome business start-up challenges	1	2	3	4	5	6	7
ESE17	I believe I can succeed in any endeavor that I set in my mind	1	2	3	4	5	6	7

Section B Demographic Variables

Please tick √ the appropriate box for the items below**:**

1. Gender: Male (   )   Female ( )
2. Age: Below 20 years ( )   20 -25 (   )   26 – 30 ( )   Above 30 (   )
3. Program being offered; Business program ( ) Non-business program (   )
4. Parent/guardian career: self-employed parent/guardian (   )   Employed parent/guardian ( )

Please proofread to ensure all questions are answered
Thank you for sparing your time to answer this questionnaire

Appendix 2: Map of Uganda showing the study area (central Uganda) in red color
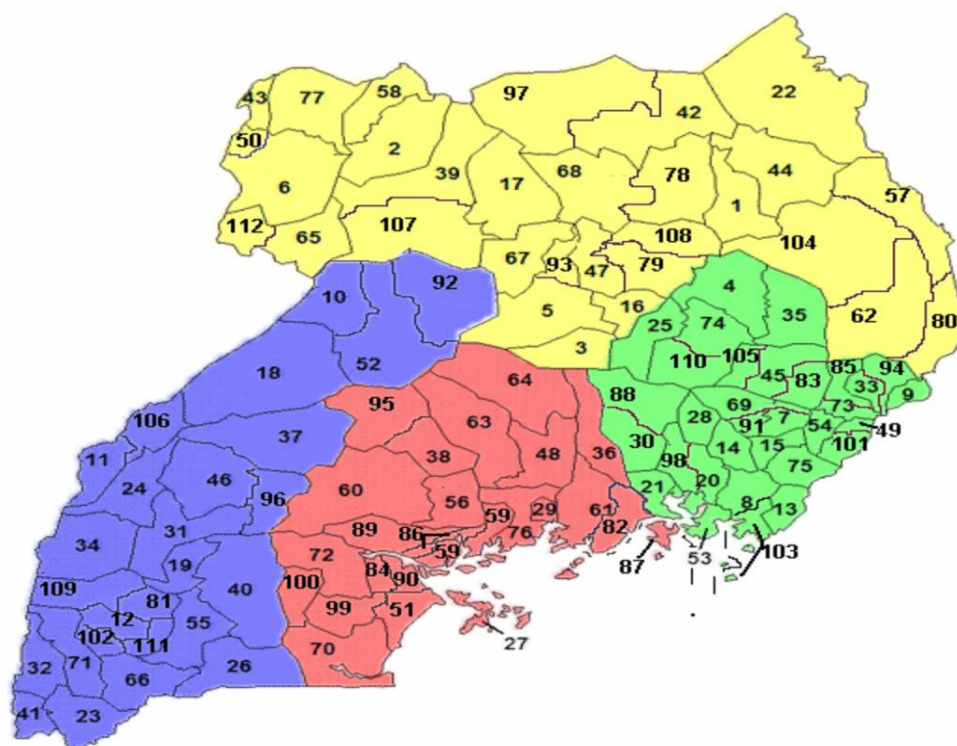
KEY

🟥	Central Uganda the study area
🟩	Eastern Region
🟦	Western Region
🟨	Northern region

Numbers on the map represent districts that make up a particular region for the central region they include as shown below;

District	map	District	Map
Wakiso	76	Kyankwanzi	95
Sembabule	72	Kiboga	38
Rakai	70	Kayunga	36
Nakasongola	64	**Kampala**	29
Nakaseke	63	Kalungu	90
Mukono	61	Kalangala	27
Mubende	60	Gomba	89
Mpigi	59	Buvuma	87
Mityana	56	Butambala	86
Masaka	51	Bukomansimbi	84
Lyantonde	100	Buikwe	82
Lwengo	99		
Luweero	48		

Appendix 3: Descriptive for non-normal variables

			Statistic	Std. Error
Entrepreneurial Intentions	Mean		5.9645	.04453
	95% Confidence Interval for Mean	Lower Bound	5.8769	
		Upper Bound	6.0521	
	5% Trimmed Mean		6.0384	
	Median		6.1111	
	Variance		.770	
	Std. Deviation		.87723	
	Minimum		2.33	
	Maximum		7.00	
	Range		4.67	
	Interquartile Range		1.00	
	Skewness		-1.254	.124
	Kurtosis		1.681	.247
Entrepreneurship Education	Mean		5.8640	.04212
	95% Confidence Interval for Mean	Lower Bound	5.7812	
		Upper Bound	5.9468	
	5% Trimmed Mean		5.9255	
	Median		6.0000	
	Variance		.688	
	Std. Deviation		.82974	
	Minimum		2.56	
	Maximum		7.00	
	Range		4.44	
	Interquartile Range		1.00	
	Skewness		-1.111	.124
	Kurtosis		1.181	.247
Entrepreneurial Attitude	Mean		6.2767	.03639
	95% Confidence Interval for Mean	Lower Bound	6.2051	
		Upper Bound	6.3483	
	5% Trimmed Mean		6.3571	
	Median		6.4167	
	Variance		.514	
	Std. Deviation		.71687	
	Minimum		3.25	
	Maximum		7.00	
	Range		3.75	
	Interquartile Range		.83	
	Skewness		-1.564	.124
	Kurtosis		2.941	.247
Entrepreneurial Self-efficacy	Mean		5.8300	.03997
	95% Confidence Interval for Mean	Lower Bound	5.7515	
		Upper Bound	5.9086	
	5% Trimmed Mean		5.8785	
	Median		5.9412	
	Variance		.620	

	Std. Deviation	.78736	
	Minimum	2.65	
	Maximum	7.00	
	Range	4.35	
	Interquartile Range	.94	
	Skewness	-.914	.124
	Kurtosis	.991	.247

Nonnormal histograms for the study variables

Histogram

Mean = 5.86
Std. Dev. = .83
N = 388

EntEducat

Histogram

Mean = 6.28
Std. Dev. = .717
N = 388

EntAttitude
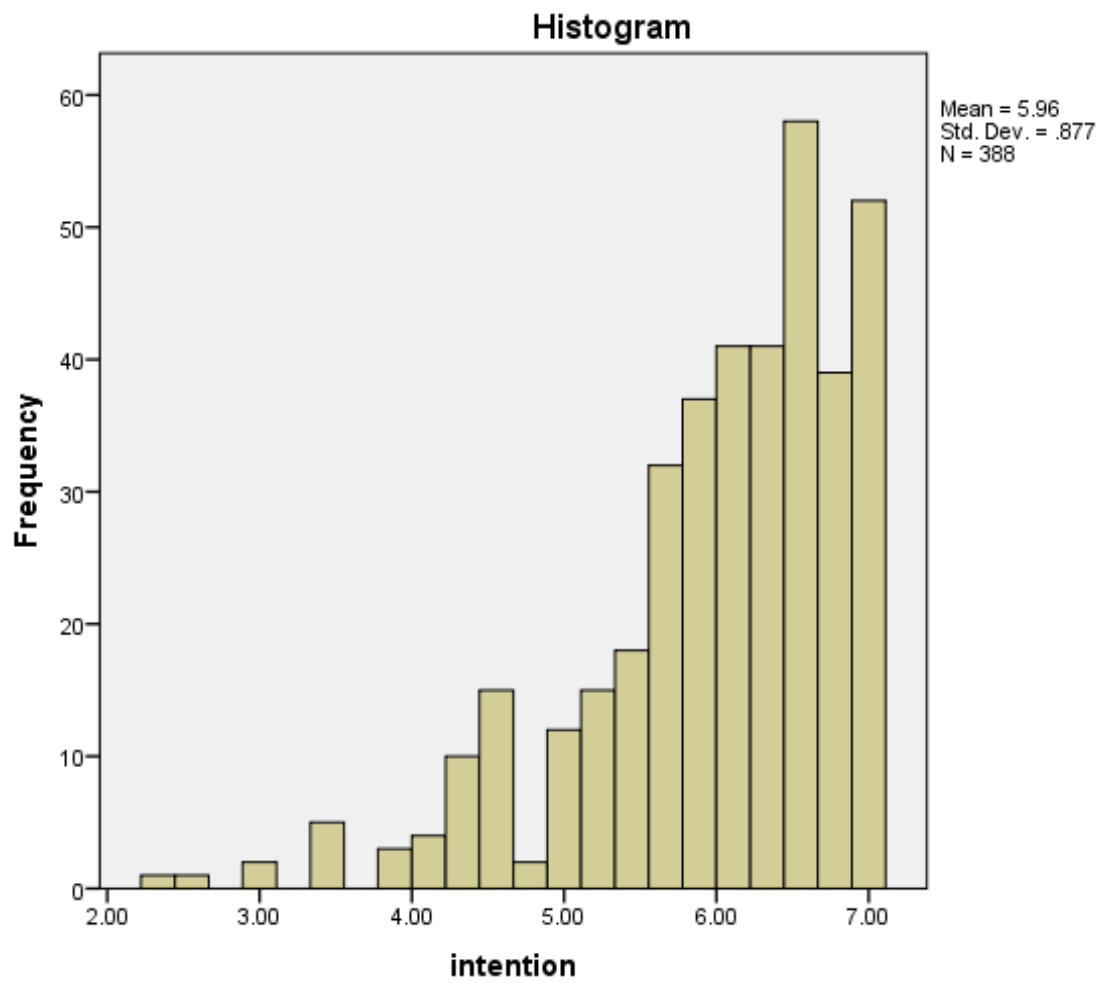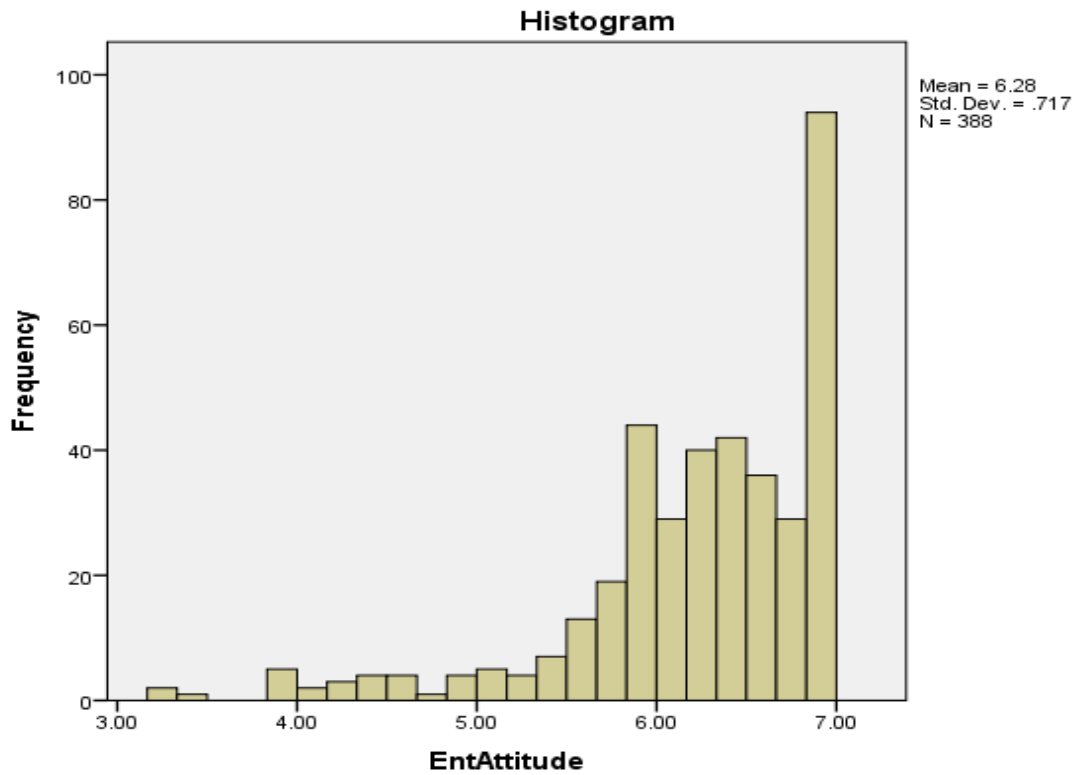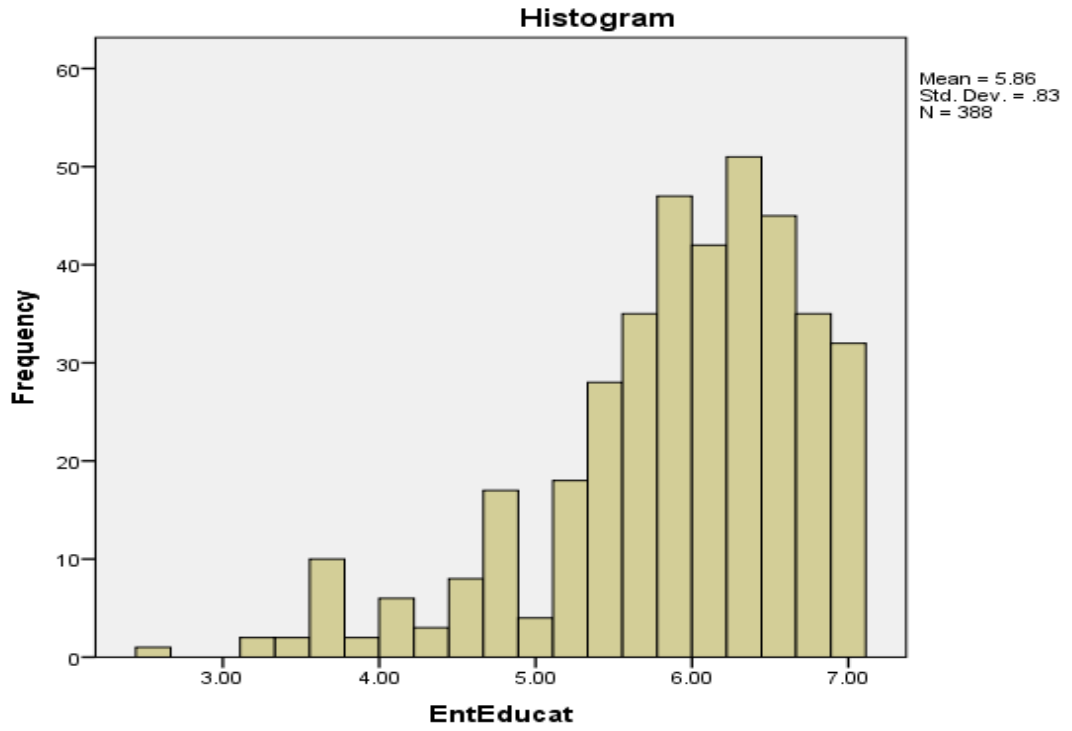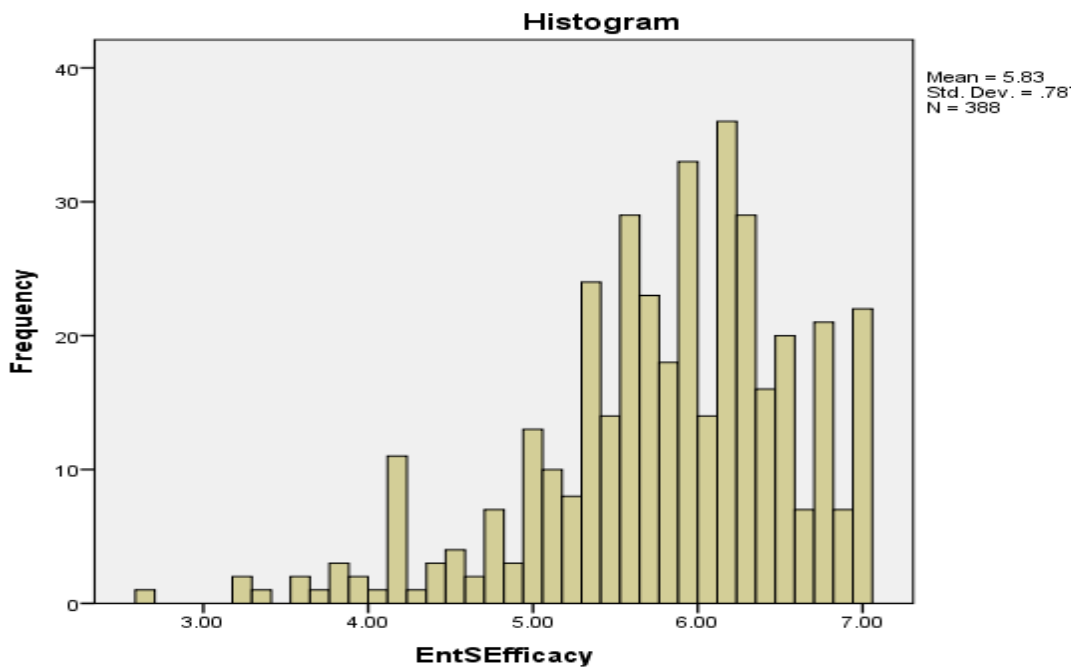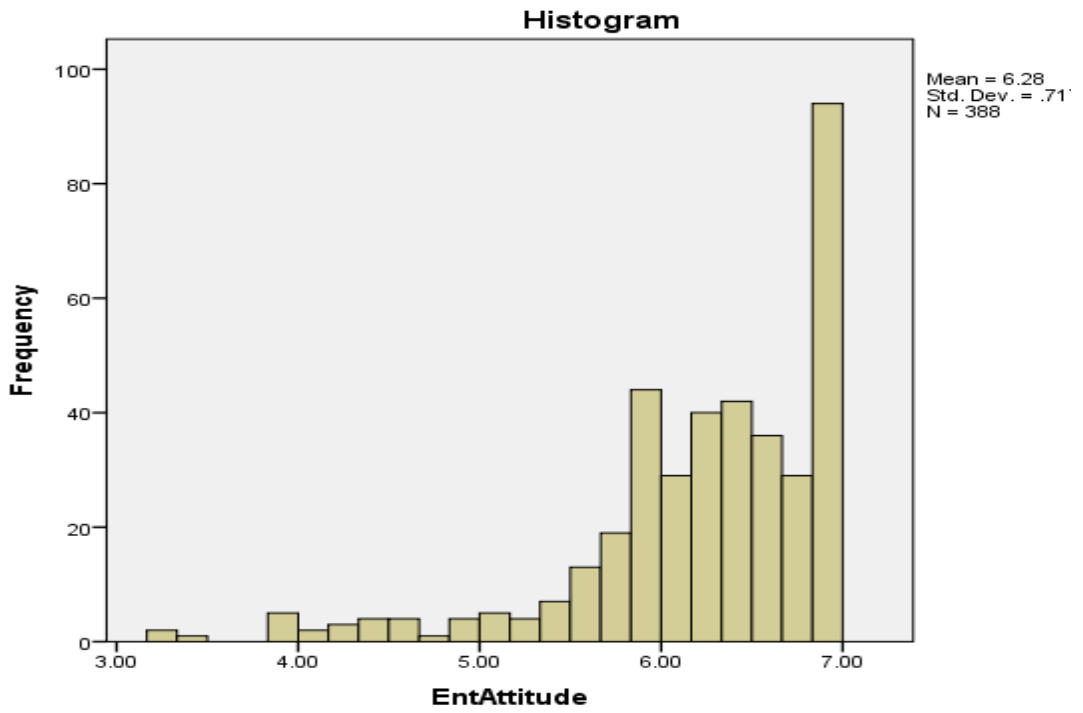
Appendix 4: Descriptive for the normal variables

			Statistic	Std. Error
Entrepreneurial intentions	Mean		5.9634	.04269
	95% Confidence Interval for Mean	Lower Bound	5.8795	
		Upper Bound	6.0474	
	5% Trimmed Mean		5.9781	
	Median		5.9106	
	Variance		.707	
	Std. Deviation		.84093	
	Minimum		4.20	
	Maximum		7.41	
	Range		3.21	
	Interquartile Range		1.13	
	Skewness		-.082	.124
	Kurtosis		-.593	.247
Entrepreneurship education	Mean		5.8696	.04092
	95% Confidence Interval for Mean	Lower Bound	5.7892	
		Upper Bound	5.9501	
	5% Trimmed Mean		5.8668	
	Median		5.8586	
	Variance		.650	
	Std. Deviation		.80606	
	Minimum		4.28	
	Maximum		7.54	
	Range		3.25	
	Interquartile Range		1.13	
	Skewness		.029	.124
	Kurtosis		-.475	.247
Entrepreneurial Attitude	Mean		6.2684	.03357
	95% Confidence Interval for Mean	Lower Bound	6.2024	
		Upper Bound	6.3344	
	5% Trimmed Mean		6.2891	
	Median		6.2952	
	Variance		.437	
	Std. Deviation		.66127	
	Minimum		4.98	
	Maximum		7.19	
	Range		2.21	
	Interquartile Range		.93	
	Skewness		-.194	.124
	Kurtosis		-.843	.247
Entrepreneurial Self-efficacy	Mean		5.8331	.03897
	95% Confidence Interval for Mean	Lower Bound	5.7565	
		Upper Bound	5.9097	
	5% Trimmed Mean		5.8354	
	Median		5.8173	
	Variance		.589	
	Std. Deviation		.76770	
	Minimum		4.18	
	Maximum		7.35	

	Range	3.17	
	Interquartile Range	1.05	
	Skewness	-.018	.124
	Kurtosis	-.449	.247

The normal histogram at the univariate level for Entrepreneurial Intentions
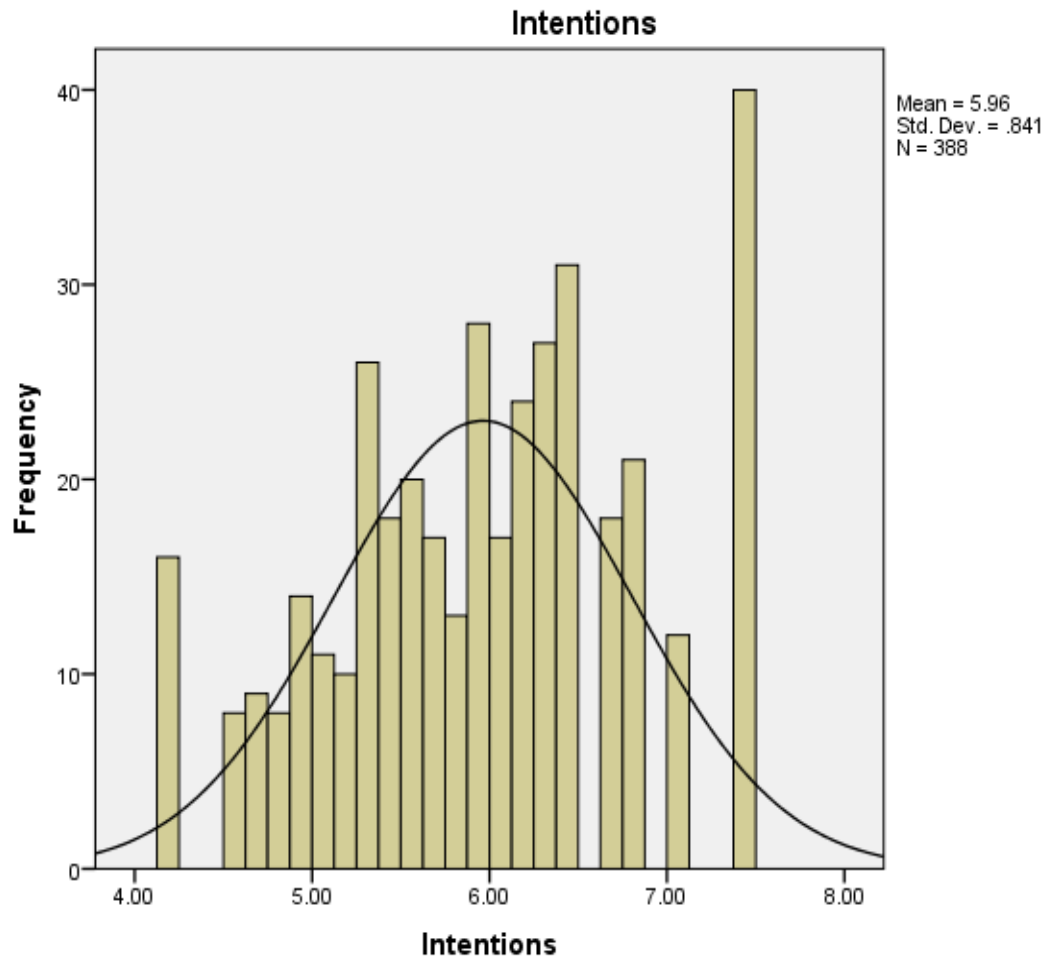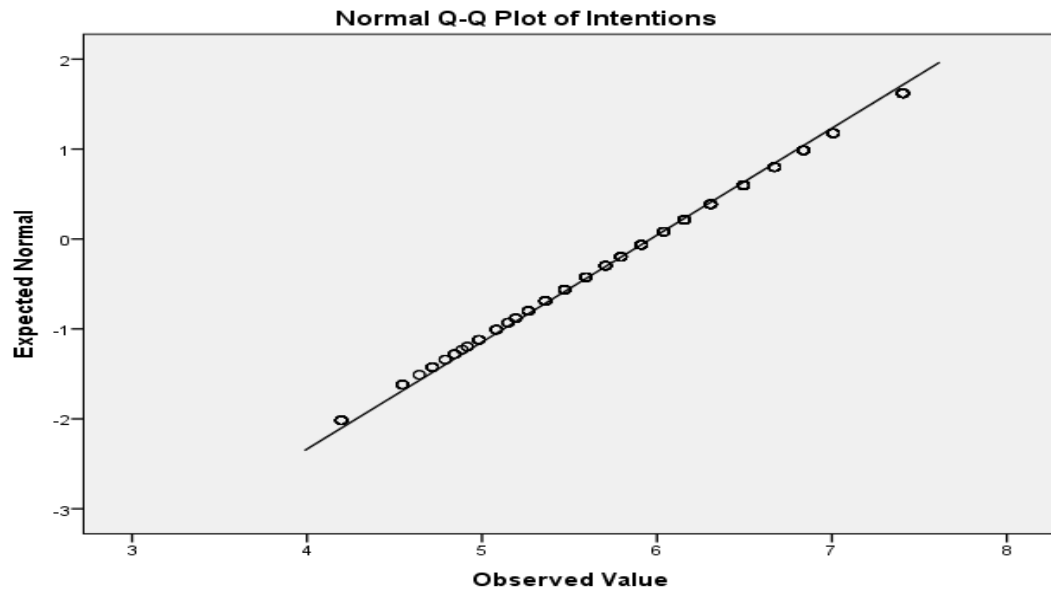
Mean = 5.96
Std. Dev. = .841
N = 388

Box plot showing absence of outliers at the univariate level for Entrepreneurial Intentions

The normal histogram at the univariate level for Entrepreneurship Education
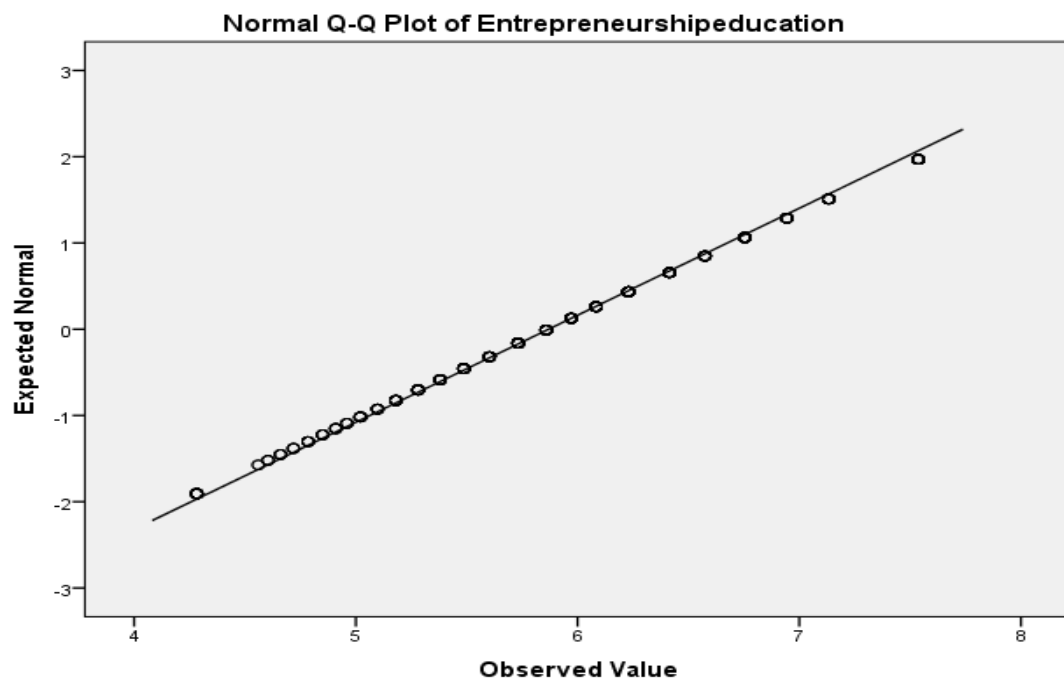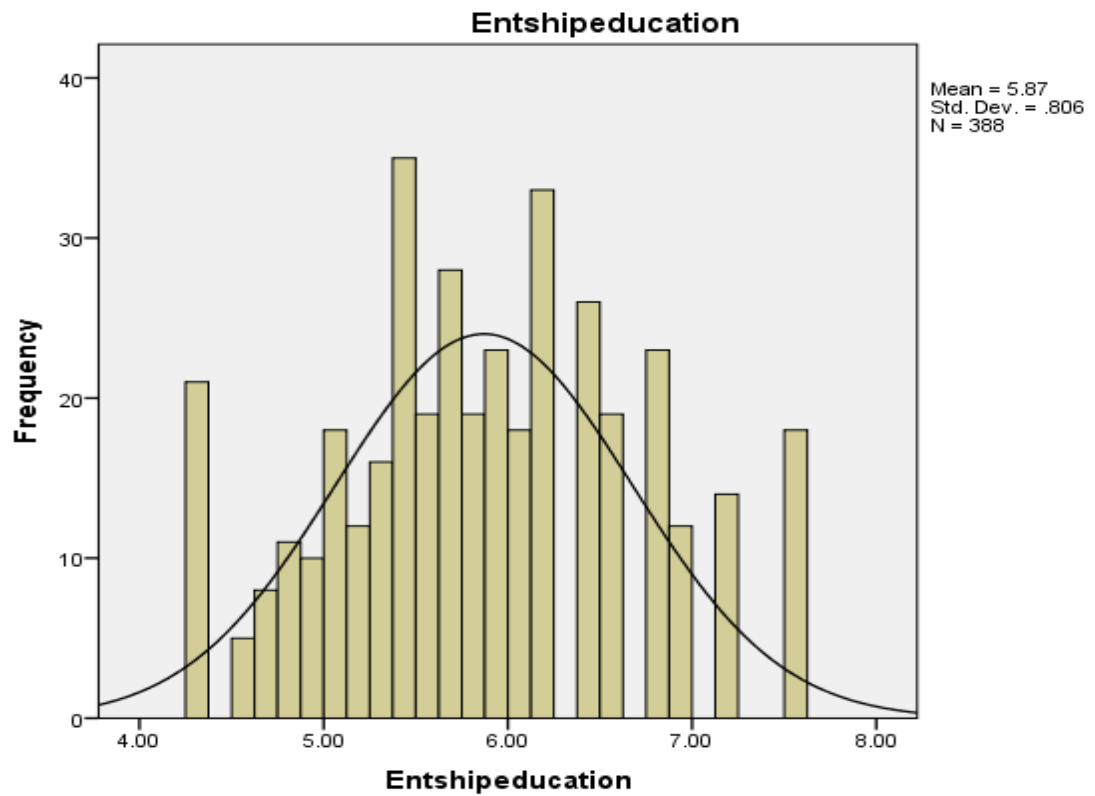
Entshipeducation

Mean = 5.87
Std. Dev. = .806
N = 388

Normal Q-Q Plot of Entrepreneurshipeducation

Box plot showing absence of outliers at the univariate level for Entrepreneurship Education

The normal histogram at the univariate level for Entrepreneurial Attitude
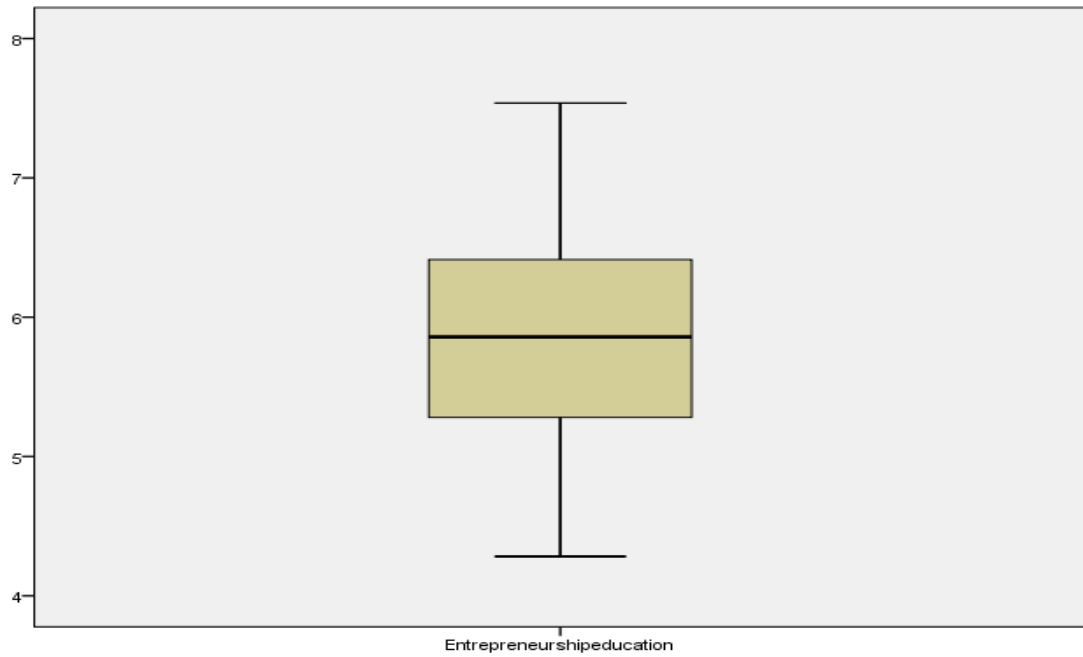
Normal Q-Q Plot of EntreprneurialAttitude
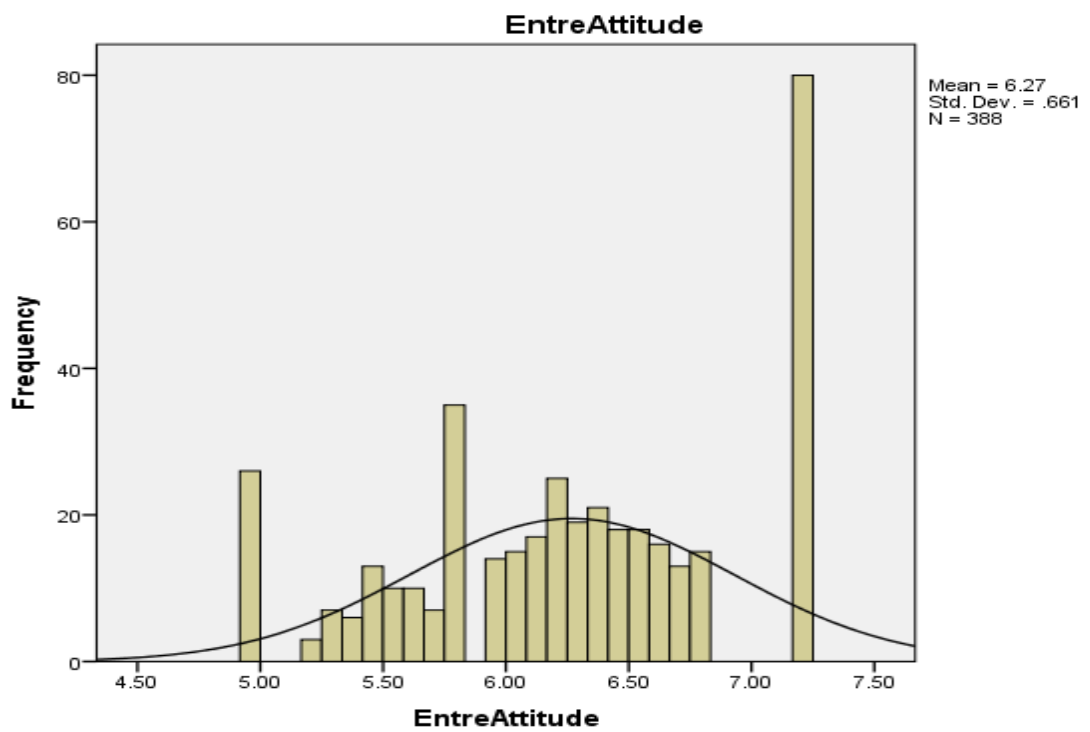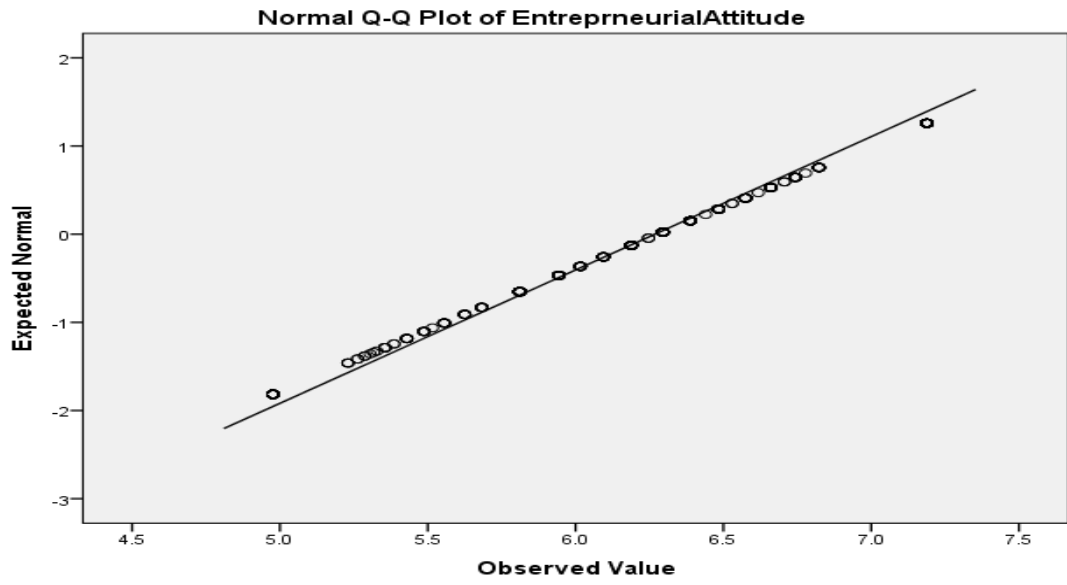
Box plot for Entrepreneurial Attitude
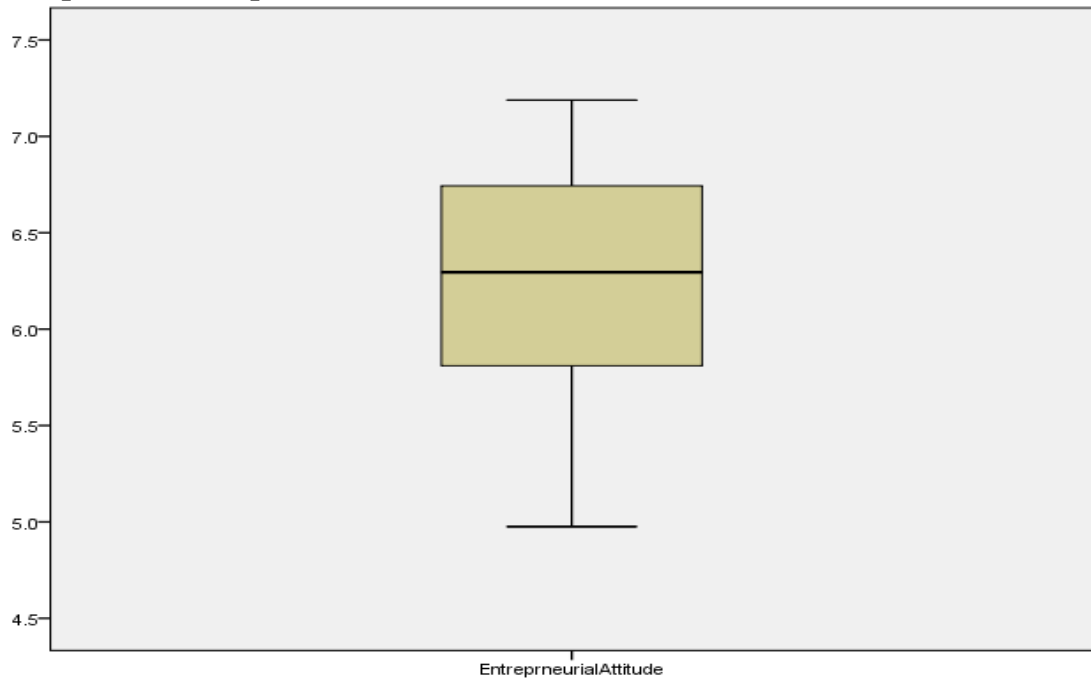
The normal histogram at the univariate level for Entrepreneurial Self-efficacy
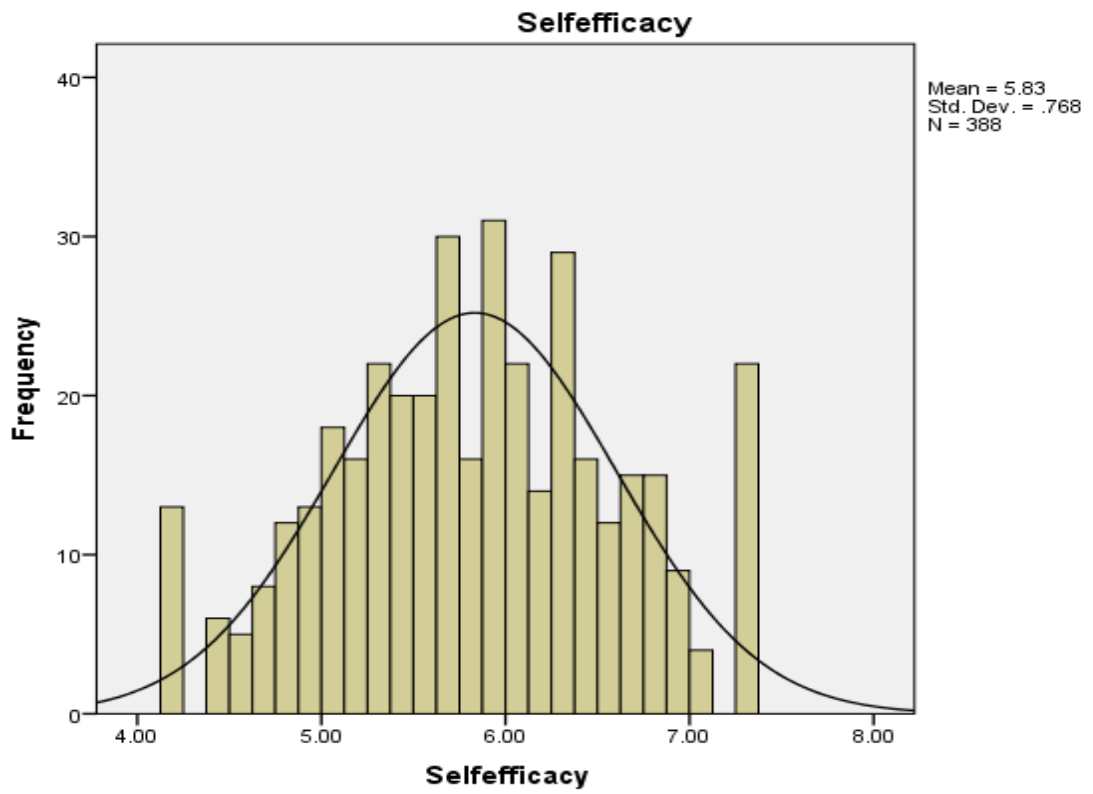
Box plot for entrepreneurial self-efficacy
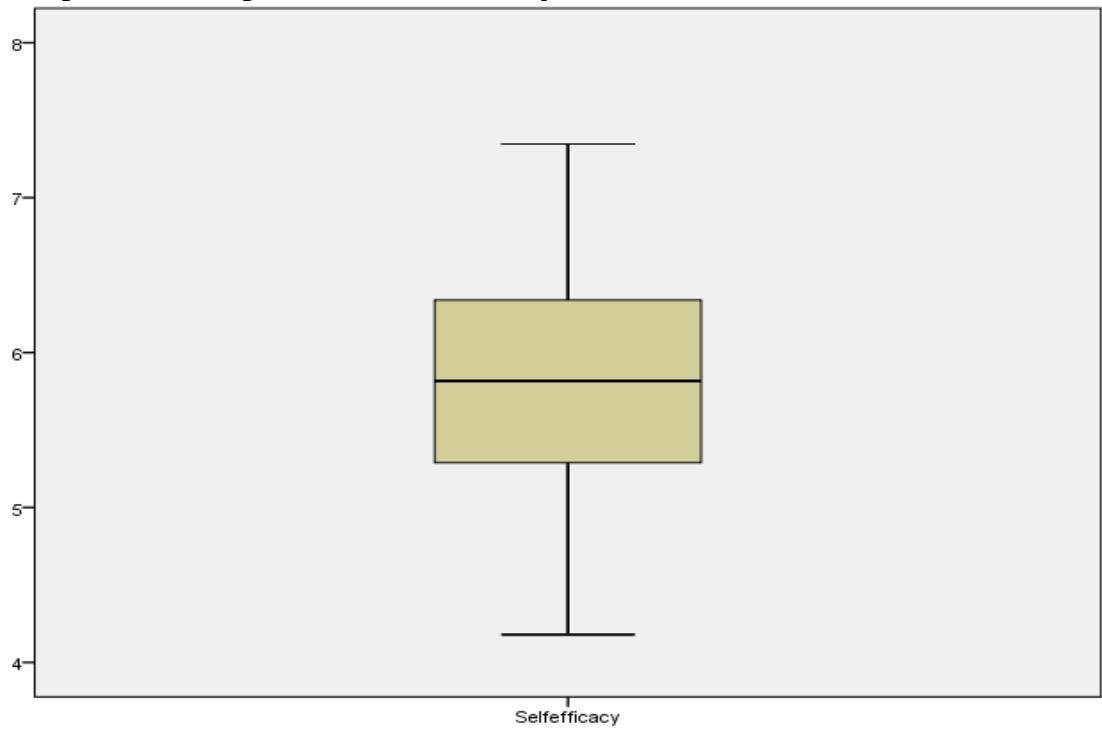
Box plots showing the Absence of multivariate outliers
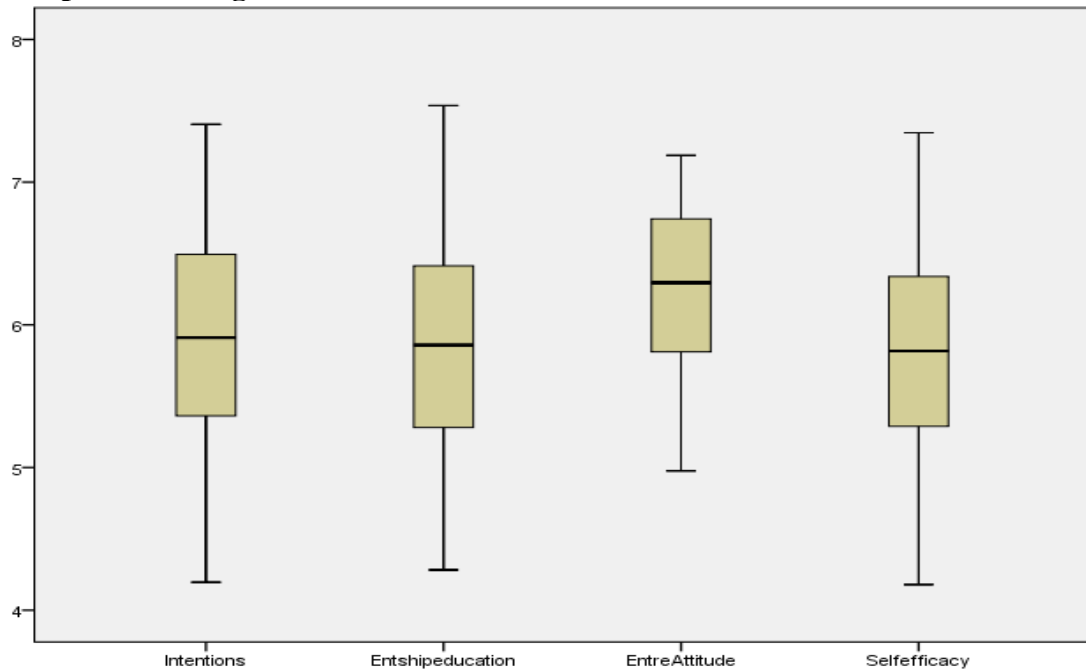
Appendix 5: Reliability Results

Reliability Statistics Entrepreneurial Intentions

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.771	.771	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I will make every effort to start and run my own business	17.75	10.962	.499	.263	.755
I am determined to create a firm in the future	18.05	8.445	.656	.545	.670
I have very seriously thought of starting a firm	18.14	8.229	.669	.553	.661
I am delighted to face the challenges of creating a new business	18.07	9.795	.489	.262	.761

Entrepreneurship Education Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.769	.770	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Education enables me to recognize alternative career options	23.67	12.727	.540	.328	.727
Education enhances my ability to better perceive business opportunities in my environment	23.70	12.664	.571	.351	.717

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Education enables me to identify the characteristics of successful business owners (e.g. risk-taking, pro-activity, innovativeness, etc	23.84	11.761	.570	.335	.716
Education increases my awareness of the different forms of businesses that I can set up i.e. Sole proprietorship, partnership	23.61	13.014	.516	.280	.735
Education has enhanced my understanding of the different sources I can obtain funding to start a new business	23.90	12.375	.506	.264	.739

Entrepreneurial Attitude Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.932	.931	12

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
To me being an entrepreneur is ……. Bad…………Good	65.79	147.097	.385	.268	.937
To me being an entrepreneur is ……. unpleasant ……. Pleasant	66.11	138.845	.622	.464	.930
To me being an entrepreneur is ……. foolish ……. Wise	66.14	133.462	.742	.603	.925
To me being an entrepreneur is ……. not enjoyable ……. Enjoyable	66.14	134.718	.694	.549	.927
To me being an entrepreneur is ……harmful …... Beneficial	66.08	132.663	.767	.665	.924
To me being an entrepreneur is a…… failure …. Success	66.02	135.206	.713	.559	.926
To me being an entrepreneur is ……... Dissatisfying …... Satisfying	66.09	134.776	.766	.634	.924
To me being an entrepreneur is…… disadvantageous …… Advantageous	66.10	134.977	.752	.633	.925
To me being an entrepreneur is ……. Unnecessary ……. Necessary	66.16	134.746	.739	.579	.925

To me being an entrepreneur is ……. not Important …… Important	66.13	132.064	.763	.638	.924
To me being an entrepreneur is ……. unlikely ………. likely	66.35	134.063	.704	.537	.927
To me being an entrepreneur is ……. Not rewarding …… Rewarding	65.98	132.379	.787	.672	.923

Entrepreneurial self-efficacy Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.918	.918	14

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I can originate new ideas	75.89	107.956	.535	.444	.916
I can take the responsibility for new ideas and decisions	75.88	106.771	.623	.537	.913
I can obtain business outcomes that are important to me	75.87	108.483	.582	.428	.914
When facing difficult tasks, I am certain that I will accomplish them	75.95	107.052	.604	.449	.913
I can start my business venture	75.91	106.233	.623	.419	.913
I am able to identify a business opportunity from a broader environment.	75.98	107.855	.615	.441	.913
I have the required skills to engage in start-up activities	75.91	106.874	.601	.415	.913
I understand what it takes to start my own business	75.86	106.464	.653	.476	.912
I can understand the language of business and start-ups	76.05	106.142	.653	.517	.912
I am able to conduct a market analysis for a business idea	76.18	102.674	.730	.575	.909

I am able to recognize customer's unmet needs	75.96	107.954	.600	.475	.913
Compared to other students, I can do entrepreneurial tasks very well	76.02	103.689	.730	.587	.909
I am confident that I can perform effectively on many different entrepreneurial tasks	75.96	105.420	.658	.494	.911
I am able to successfully overcome business start-up challenges	76.23	102.689	.705	.540	.910

Appendix 6: Factor Analysis Results

Entrepreneurial Intentions

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.695
Bartlett's Test of Sphericity	Approx. Chi-Square	481.926
	Df	6
	Sig.	.000

Communalities

	Initial	Extraction
I will make every effort to start and run my own business	1.000	.490
I am determined to create a firm in the future	1.000	.695
I am delighted to face the challenges of creating a new business	1.000	.487
I have very seriously thought of starting a firm	1.000	.710

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.382	59.560	59.560	2.382	59.560	59.560
2	.784	19.590	79.150			
3	.561	14.027	93.178			
4	.273	6.822	100.000			

Extraction Method: Principal Component Analysis.

Scree Plot
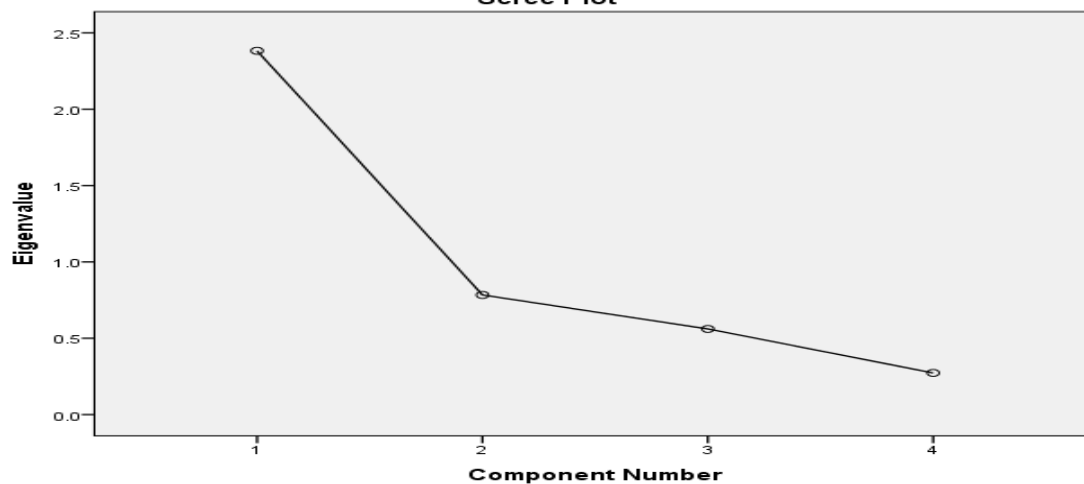
Component Matrix[a]

	Component
	1
I will make every effort to start and run my own business	.700
I am determined to create a firm in the future	.834
I am delighted to face the challenges of creating a new business	.698
I have very seriously thought of starting a firm	.842

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Entrepreneurship education

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.796
Bartlett's Test of Sphericity	Approx. Chi-Square	445.537
	Df	10
	Sig.	.000

Communalities

	Initial	Extraction
Education enables me to recognize alternative career options	1.000	.529
Education enhances my ability to better perceive business opportunities in my environment	1.000	.561
Education enables me to identify the characteristics of successful business owners (e.g. risk-taking, pro-activity, innovativeness, etc	1.000	.557
Education increases my awareness of the different forms of businesses that I can set up i.e., Sole proprietorship, partnership	1.000	.487
Education has enhanced my understanding of the different sources I can obtain funding to start a new business	1.000	.474

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.608	52.163	52.163	2.608	52.163	52.163
2	.710	14.194	66.358			
3	.669	13.387	79.745			
4	.562	11.240	90.984			
5	.451	9.016	100.000			

Extraction Method: Principal Component Analysis.

Scree Plot
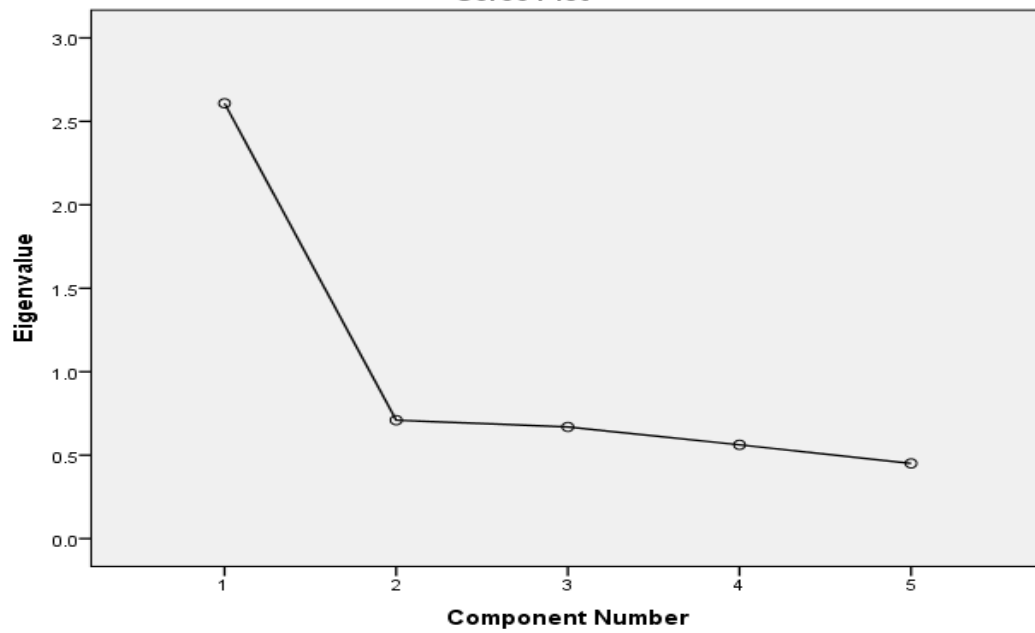
Component Matrix^a

	Component
	1
Education enables me to recognize alternative career options	.727
Education enhances my ability to better perceive business opportunities in my environment	.749
Education enables me to identify the characteristics of successful business owners (e.g. risk-taking, pro-activity, innovativeness, etc	.747
Education increases my awareness of the different forms of businesses that I can set up i.e., Sole proprietorship, partnership	.698
Education has enhanced my understanding of the different sources I can obtain funding to start a new business	.688

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Entrepreneurial self-efficacy

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.944
Bartlett's Test of Sphericity	Approx. Chi-Square	3301.565
	Df	136
	Sig.	.000

Communalities

	Initial	Extraction
I can originate new ideas	1.000	.629
I can take the responsibility for new ideas and decisions	1.000	.673
I can obtain business outcomes that are important to me	1.000	.576
When facing difficult tasks, I am certain that I will accomplish them	1.000	.543

|		
I can make the right decisions under uncertainty and risk	1.000	.520
I can develop a well-conceived business plan and present it to potential investors.	1.000	.478
I can to start my business venture	1.000	.469
I can identify a business opportunity from a broader environment.	1.000	.478
I have the required skills to engage in start-up activities	1.000	.467
I understand what it takes to start my own business	1.000	.541
I can understand the language of business and start-ups	1.000	.631
I can conduct a market analysis for a business idea	1.000	.633
I can recognize customer's unmet needs	1.000	.562
Compared to other students, I can do entrepreneurial tasks very well	1.000	.605
I am confident that I can perform effectively on many different entrepreneurial tasks	1.000	.510
I am able to successfully overcome business start-up challenges	1.000	.582
I believe I can succeed in any endeavor that I set in my mind	1.000	.422

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.086	47.567	47.567	8.086	47.567	47.567	5.448	32.046	32.046
2	1.233	7.252	54.819	1.233	7.252	54.819	3.871	22.773	54.819
3	.864	5.081	59.900						
4	.819	4.818	64.718						
5	.723	4.251	68.969						
6	.654	3.847	72.816						
7	.606	3.566	76.382						
8	.589	3.464	79.846						

9	.511	3.008	82.853						
10	.465	2.735	85.588						
11	.421	2.475	88.064						
12	.394	2.318	90.382						
13	.380	2.237	92.619						
14	.355	2.087	94.705						
15	.315	1.853	96.559						
16	.300	1.764	98.323						
17	.285	1.677	100.000						

Extraction Method: Principal Component Analysis.

Scree Plot
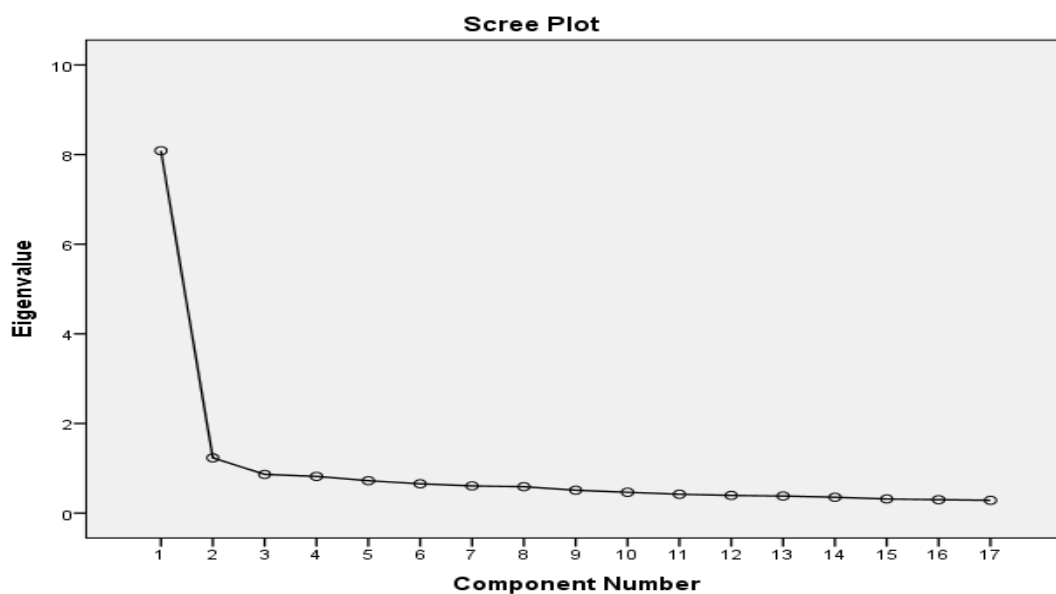
Component Matrix^a

	Component	
	1	2
I can originate new ideas	.590	.530
I can take the responsibility for new ideas and decisions	.670	
I can obtain business outcomes that are important to me	.642	
When facing difficult tasks, I am certain that I will accomplish them	.676	
I can make the right decisions under uncertainty and risk	.709	
I can develop a well-conceived business plan and present it to potential investors.	.686	
I can to start my business venture	.678	
I am able to identify a business opportunity from a broader environment.	.674	
I have the required skills to engage in start-up activities	.637	

I understand what it takes to start my own business	.705
I can understand the language of business and start-ups	.698
I am able to conduct a market analysis for a business idea	.782
I am able to recognize customer's unmet needs	.658
Compared to other students, I can do entrepreneurial tasks very well	.768
I am confident that I can perform effectively on many different entrepreneurial tasks	.713
I am able to successfully overcome business start-up challenges	.759
I believe I can succeed in any endeavor that I set in my mind	.649

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Rotated Component Matrix[a]

	Component	
	1	2
I can originate new ideas		.782
I can take the responsibility for new ideas and decisions		.787
I can obtain business outcomes that are important to me		.716
When facing difficult tasks, I am certain that I will accomplish them		.649
I can make the right decisions under uncertainty and risk		.543
I can develop a well-conceived business plan and present it to potential investors.		
I can start my business venture	.593	
I am able to identify a business opportunity from a broader environment.	.623	
I have the required skills to engage in start-up activities	.653	
I understand what it takes to start my own business	.682	
I can understand the language of business and start-ups	.783	
I am able to conduct a market analysis for a business idea	.703	
I am able to recognize customer's unmet needs	.739	
Compared to other students, I can do entrepreneurial tasks very well	.678	
I am confident that I can perform effectively on many different entrepreneurial tasks	.581	
I am able to successfully overcome business start-up challenges	.640	
I believe I can succeed in any endeavor that I set in my mind		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.942
Bartlett's Test of Sphericity	Approx. Chi-Square	2950.368
	Df	66
	Sig.	.000

Communalities

|	Initial	Extraction
To me being an entrepreneur is ……. Bad…………Good	1.000	.190
To me being an entrepreneur is …….unpleasant ……. Pleasant	1.000	.452
To me being an entrepreneur is ……...foolish ……... Wise	1.000	.621
To me being an entrepreneur is ……. not enjoyable ……. Enjoyable	1.000	.562
To me being an entrepreneur is ……harmful …... Beneficial	1.000	.666
To me being an entrepreneur is a…… failure …. Success	1.000	.591
To me being an entrepreneur is …….. Dissatisfying …... Satisfying	1.000	.664
To me being an entrepreneur is……. disadvantageous …… Advantageous	1.000	.647
To me being an entrepreneur is ……. Unnecessary ……. Necessary	1.000	.623
To me being an entrepreneur is ……. not Important …… Important	1.000	.664
To me being an entrepreneur is ……. unlikely ………. likely	1.000	.577
To me being an entrepreneur is ……. Not rewarding …… Rewarding	1.000	.695

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.952	57.932	57.932	6.952	57.932	57.932
2	.915	8.456	66.388			
3	.698	5.817	72.205			
4	.541	4.509	76.714			
5	.497	4.143	80.856			
6	.449	3.744	84.600			
7	.413	3.439	88.039			
8	.354	2.953	90.992			
9	.320	2.664	93.656			
10	.300	2.500	96.156			
11	.234	1.952	98.108			
12	.227	1.892	100.000			

Extraction Method: Principal Component Analysis.

Scree Plot
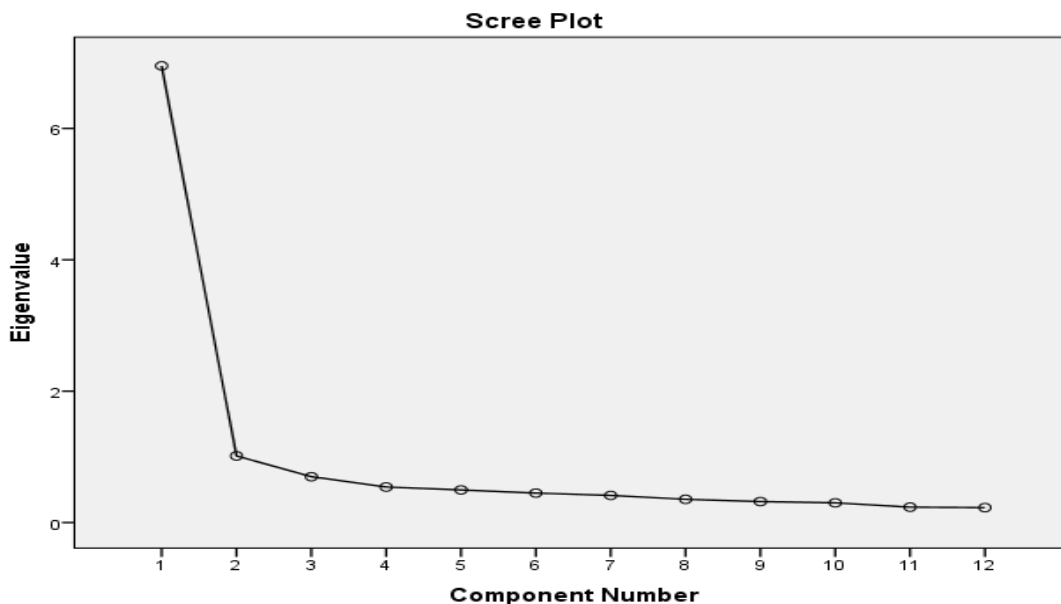
Component Matrix[a]

	Component
	1
To me being an entrepreneur is ……. Bad…………Good	.575
To me being an entrepreneur is ……. unpleasant ……. Pleasant	.673
To me being an entrepreneur is ……...foolish ……... Wise	.788
To me being an entrepreneur is ……. not enjoyable ……. Enjoyable	.750
To me being an entrepreneur is ……harmful …... Beneficial	.816
To me being an entrepreneur is a…… failure …. Success	.769
To me being an entrepreneur is ……... Dissatisfying …... Satisfying	.815
To me being an entrepreneur is……. disadvantageous …… Advantageous	.805
To me being an entrepreneur is ……. Unnecessary ……. Necessary	.789
To me being an entrepreneur is ……. not Important …… Important	.815
To me being an entrepreneur is ……. unlikely ………. likely	.759
To me being an entrepreneur is ……. Not rewarding …… Rewarding	.834

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	S E	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	5.714	.265		21.561	.000		
	Gender	.289	.086	.172	3.343	.001	.926	1.080
	Age	-.044	.116	-.019	-.382	.703	.976	1.024
	Program	.039	.097	.021	.407	.684	.921	1.086
	P's career	.275	.089	.159	3.086	.002	.927	1.079
2	(Constant)	3.026	.345		8.764	.000		
	Gender	.230	.076	.137	3.015	.003	.921	1.085
	Age	-.055	.103	-.024	-.533	.594	.976	1.024
	Program	-.089	.086	-.048	-1.036	.301	.903	1.108
	P's career	.213	.079	.123	2.701	.007	.921	1.085
	Entrepreneurship education	.489	.046	.469	10.564	.000	.965	1.036
3	(Constant)	.882	.385		2.291	.023		
	Gender	.228	.069	.136	3.319	.001	.921	1.085
	Age	-.056	.092	-.024	-.611	.542	.976	1.024
	Program	-.012	.078	-.006	-.155	.877	.893	1.120
	P's career	.180	.071	.104	2.529	.012	.919	1.088
	Entrepreneurship education	.269	.048	.257	5.622	.000	.735	1.360
	Entrepreneurial Attitude	.544	.057	.427	9.457	.000	.755	1.324
4	(Constant)	.692	.373		1.854	.065		
	Gender	.202	.067	.120	3.035	.003	.916	1.091
	Age	-.123	.090	-.053	-1.365	.173	.958	1.044
	Program	-.008	.075	-.004	-.111	.912	.893	1.120
	P's career	.153	.069	.088	2.218	.027	.914	1.094
	Entrepreneurship education	.141	.052	.135	2.716	.007	.582	1.718
	Entrepreneurial Attitude	.440	.059	.346	7.491	.000	.674	1.484
	Self-efficacy	.302	.056	.275	5.402	.000	.553	1.808

a. Dependent Variable: Entrepreneurial intentions

Appendix 7: Correlations Results

		Entrepreneurial intentions	Entrepreneurship education	Entrepreneurial Attitude	Self-efficacy
Pearson Correlation	Entrepreneurial intentions	1.000	.484	.568	.556
	Entrepreneurship education	.484	1.000	.485	.599
	Entrepreneurial Attitude	.568	.485	1.000	.521
	Self-efficacy	.556	.599	.521	1.000
Sig. (1-tailed)	Entrepreneurial intentions	.	.000	.000	.000
	Entrepreneurship education	.000	.	.000	.000
	Entrepreneurial Attitude	.000	.000	.	.000
	Self-efficacy	.000	.000	.000	.
N	Entrepreneurial intentions	388	388	388	388
	Entrepreneurship education	388	388	388	388
	Entrepreneurial Attitude	388	388	388	388
	Self efficacy	388	388	388	388

Appendix 8: Hierarchical Regression Results

Model Summary

Mod el	R	R Square	Adjuste d R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
					Change Statistics				
1	.250 a	.062	.053	.81850	.062	6.375	4	383	.000
2	.524 b	.274	.265	.72100	.212	111.590	1	382	.000
3	.642 c	.412	.403	.64970	.138	89.438	1	381	.000
4	.674 d	.454	.444	.62693	.042	29.180	1	380	.000

a. Predictors: (Constant), P's career, Age, Gender, Program
b. Predictors: (Constant), P's career, Age, Gender, Program, Entrepreneurship education
c. Predictors: (Constant), P's career, Age, Gender, Program, Entrepreneurship education, Entrepreneurial Attitude
d. Predictors: (Constant), P's career, Age, Gender, Program, Entrepreneurship education, Entrepreneurial Attitude, Self-efficacy
e. Dependent Variable: Entrepreneurial intentions

Appendix 9: Mediation Results

```
Run MATRIX procedure:

******* PROCESS Procedure for SPSS Release 2.16.1 *****************

        Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2013).
www.guilford.com/p/hayes3

**********************************************************************
Model = 4
    Y = Entrepreneurial intentions
    X = Entrepreneurship education
    M = Entrepreneurial attitude

Statistical Controls:
CONTROL= Gender   Age       Program   Parent's career

Sample size
       388

**********************************************************************
Outcome: EA

Model Summary
          R         R-sq       MSE        F        df1       df2          p
      .4950      .2450      .3345   24.7891  5.0000  382.0000      .0000

Model
              coeff         se          t         p        LLCI        ULCI
Constant     3.9446      .2770    14.2416     .0000     3.4000     4.4892
EE            .4054      .0371    10.9180     .0000      .3324      .4784
Gender        .0034      .0612      .0554     .9559     -.1169      .1237
Age           .0032      .0822      .0392     .9687     -.1585      .1649
Program      -.1416      .0689    -2.0533     .0407     -.2771     -.0060
P's career    .0608      .0632      .9623     .3365     -.0635      .1852

**********************************************************************
Outcome: EI

Model Summary
          R         R-sq       MSE        F        df1       df2          p
      .6421      .4123      .4221   44.5552  6.0000  381.0000      .0000

Model
              coeff         se          t         p        LLCI        ULCI
Constant      .8820      .3850     2.2908     .0225      .1250     1.6389
EA            .5436      .0575     9.4572     .0000      .4306      .6566
EE            .2686      .0478     5.6222     .0000      .1747      .3626
Gender        .2282      .0687     3.3195     .0010      .0930      .3633
Age          -.0564      .0924     -.6108     .5417     -.2380      .1252
Program      -.0121      .0779     -.1550     .8769     -.1652      .1411
P's career   .1799      .0711     2.5292     .0118      .0400      .3197

******************** TOTAL EFFECT MODEL *************************
```

```
Outcome: EI

Model Summary
        R      R-sq      MSE       F        df1       df2        p
      .5238    .2744    .5198    28.8901   5.0000   382.0000    .0000

Model
              coeff     se        t         p        LLCI      ULCI
Constant     3.0262   .3453    8.7638    .0000     2.3472    3.7051
EE            .4890   .0463   10.5636    .0000      .3980     .5800
Gender        .2300   .0763    3.0154    .0027      .0800     .3800
Age          -.0547   .1025    -.5333    .5941     -.2562     .1469
Program      -.0890   .0860   -1.0357    .3010     -.2580     .0800
P's Career    .2129   .0788    2.7014    .0072      .0580     .3679

***************** TOTAL, DIRECT, AND INDIRECT EFFECTS ***************

Total effect of X on Y
     Effect       SE        t         p        LLCI      ULCI
      .4890     .0463   10.5636    .0000      .3980     .5800

Direct effect of X on Y
     Effect       SE        t         p        LLCI      ULCI
      .2686     .0478    5.6222    .0000      .1747     .3626

Indirect effect of X on Y
            Effect    Boot SE   BootLLCI   BootULCI
EA           .2204     .0362     .1524      .2937

Partially standardized indirect effect of X on Y
            Effect    Boot SE   BootLLCI   BootULCI
EA           .2692     .0427     .1869      .3530

The completely standardized indirect effect of X on Y
            Effect    Boot SE   BootLLCI   BootULCI
EA           .2143     .0343     .1505      .2842

Ratio of indirect to total effect of X on Y
            Effect    Boot SE   BootLLCI   BootULCI
EA           .4507     .0813     .3007      .6155

Ratio of indirect to direct effect of X on Y
            Effect    Boot SE   BootLLCI   BootULCI
EA           .8203     .3330     .4300     1.6006

******************** ANALYSIS NOTES AND WARNINGS ********************

Number of bootstrap samples for bias-corrected bootstrap confidence
intervals:
     5000

Level of confidence for all confidence intervals in output:
    95.00

------ END MATRIX -----
```

Appendix 10: Moderation and Moderated Mediation Results

```
Run MATRIX procedure:

******** PROCESS Procedure for SPSS Release 2.16.1 *****************

        Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
    Documentation available in Hayes (2013).
www.guilford.com/p/hayes3

*********************************************************************
*****
Model = 15
    Y = Entrepreneurial intentions (EI)
    X = Entrepreneurship education (EE)
    M = Entrepreneurial attitude (EA)
    V = Entrepreneurial Self-efficacy (ESE)

Statistical Controls:
CONTROL= Gender   Age      Program   Parent's career

Sample size
      388

*********************************************************************
*****
Outcome: EA

Model Summary
      R       R-sq     MSE       F        df1        df2         p
    .4950    .2450    .3345   24.7891   5.0000   382.0000     .0000

Model
              coeff    se       t        p       LLCI       ULCI
Constant     .0556   .1878    .2961    .7673    -.3136     .4248
EE           .4054   .0371  10.9180    .0000     .3324
.4784
Gender       .0034   .0612    .0554    .9559    -.1169     .1237
Age          .0032   .0822    .0392    .9687    -.1585     .1649
Program     -.1416   .0689  -2.0533    .0407    -.2771    -.0060
Family       .0608   .0632    .9623    .3365    -.0635     .1852

*********************************************************************
Outcome: EI

Model Summary
      R       R-sq     MSE       F        df1        df2         p
    .6842    .4682    .3851   36.9711   9.0000   378.0000     .0000

Model
              coeff    se       t        p       LLCI       ULCI
Constant    6.1223   .2073  29.5391    .0000    5.7148     6.5299
EA           .4216   .0584   7.2162    .0000     .3067     .5365
EE           .1328   .0514   2.5850    .0101     .0318     .2338
ESE          .3149   .0554   5.6818    .0000     .2059     .4239
int_1       -.2006   .0720  -2.7840    .0056    -.3422    -.0589
int_2        .0327   .0567    .5766    .5645    -.0787     .1441
Gender       .1758   .0665   2.6427    .0086     .0450     .3067
Age         -.1326   .0894  -1.4829    .1389    -.3084     .0432
Program     -.0256   .0747   -.3422    .7324    -.1725     .1213
P's Career   .1486   .0683   2.1757    .0302     .0143     .2829
```

```
Product terms key:

 int_1     EA      X      ESE
 int_2     EE      X      ESE

******************** DIRECT AND INDIRECT EFFECTS ********************

Conditional direct effect(s) of X on Y at values of the moderator(s):
        ESE     Effect      SE        t         p        LLCI      ULCI
       -.7677    .1077    .0686    1.5696    .1173     -.0272     .2427
        .0000    .1328    .0514    2.5850    .0101      .0318     .2338
        .7677    .1579    .0660    2.3931    .0172      .0282     .2876

Conditional indirect effect(s) of X on Y at values of the
moderator(s):

Mediator
            ESE     Effect    Boot SE   BootLLCI   BootULCI
EA        -.7677    .2333     .0474     .1454      .3327
EA         .0000    .1709     .0339     .1103      .2440
EA         .7677    .1085     .0416     .0345      .1960

Values for quantitative moderators are the mean and plus/minus one SD
from mean.
Values for dichotomous moderators are the two values of the
moderator.

******************** INDEX OF MODERATED MEDIATION ********************

Mediator
            Index    SE(Boot)   BootLLCI   BootULCI
EA         -.0813     .0378     -.1577     -.0079

******************** ANALYSIS NOTES AND WARNINGS ********************

Number of bootstrap samples for bias-corrected bootstrap confidence
intervals:
     5000

Level of confidence for all confidence intervals in output:
    95.00

NOTE: The following variables were mean-centered prior to analysis:
  EE    EA    ESE

------ END MATRIX -----
```

Appendix 11: Letters authorizing Data Collection

National Council for Higher Education

20th Feb 2020

Moses Kisame Kisubi
School of Business and Economics
Moi University
P.O. Box 3900
Eldoret, Kenya

RE; PERMISSION TO COLLECT DATA IN MAKERERE AND KYAMBOGO UNIVERSITY

Reference is made to your letter dated 17TH February 2020 on the above subject.

The purpose of this letter is to inform you and university management that you have been authorized to collect data in the above mentioned universities on the topic; *"Entrepreneurship Education, Entrepreneurial Attitude and Self-efficacy on Self-employment Intentions among undergraduate finalists"* .

He should be accorded the necessary support.

Yours,

Rev. Canon Dr. Alex M. Kagume
Deputy Executive Director
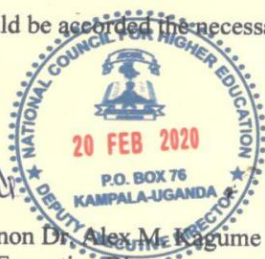
Plot M834, Kigobe Road, Kyambogo P.O. Box 76 KYAMBOGO, Kampala-Uganda
Tel: +256-393-262140 / 4 Fax: +256-393-262145 Email: ed@unche.or.ug
Website: www.unche.or.ug

MOI UNIVERSITY
SCHOOL OF BUSINESS AND ECONOMICS

Tel: (0321) 43620
Fax No: (0321) 43360
Telex No.35047 MOIVARSITY

Box 3900
Eldoret
KENYA

RE: SBE/DPHIL/09/18

DATE: 15th February, 2020

TO WHOM IT MAY CONCERN

RE:MOSES KISUBI KISAME– SBE/D. PHIL/BM/09/18

The above named is a bonafide student of Moi University School of Business and Economics, undertaking a Doctor of Philosophy in Business Management degree, specializing in Strategic Management.

He has completed coursework, defended his proposal, and is proceeding to the field to collect data for his research titled: *"Entrepreneurship Education, Entrepreneurial Attitude and Self Efficacy and Self Employment Intentions among Polytechnic and Undergraduate Students in Central Uganda."*.

Any assistance accorded to him will be highly appreciated.

Yours Faithfully,

DR. RONALD BONUKE
CHAIR, SCHOOL GRADUATE STUDIES COMMITTEE (SBE)

MAKERERE UNIVERSITY
25 FEB 2020
for ACADEMIC REGISTRAR

MOI UNIVERSITY
SCHOOL OF BUSINESS AND ECONOMICS

Tel: (0321) 43620   Box 3900
Fax No: (0321) 43360   Eldoret
Telex No.35047 MOIVARSITY   KENYA

RE: SBE/DPHIL/09/18   DATE: 15th February, 2020

TO WHOM IT MAY CONCERN

RE:MOSES KISUBI KISAME– SBE/D. PHIL/BM/09/18

The above named is a bonafide student of Moi University School of Business and Economics, undertaking a Doctor of Philosophy in Business Management degree, specializing in Strategic Management.

He has completed coursework, defended his proposal, and is proceeding to the field to collect data for his research titled: *"Entrepreneurship Education, Entrepreneurial Attitude and Self Efficacy and Self Employment Intentions among Polytechnic and Undergraduate Students in Central Uganda.".*

Any assistance accorded to him will be highly appreciated.

Yours Faithfully,

DR. RONALD BONUKE
CHAIR, SCHOOL GRADUATE STUDIES COMMITTEE. (SBE)